UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, DC 20549

FORM 10-Q

(Mark One)

☒ **QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the quarterly period ended June 30, 2020.

OR

☐ **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the transition period from_____ to _____.

Commission file number 001-33528

OPKO Health, Inc.

(Exact Name of Registrant as Specified in Its Charter)

Delaware	**75-2402409**
(State or Other Jurisdiction of Incorporation or Organization)	**(I.R.S. Employer Identification No.)**

4400 Biscayne Blvd.
Miami FL 33137
(Address of Principal Executive Offices) (Zip Code)

(305) 575-4100
(Registrant's Telephone Number, Including Area Code)

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	Trading Symbol	Name of each exchange on which registered
Common Stock, par value $0.01 per share	OPK	NASDAQ Global Select Market

Indicate by check mark whether the registrant: (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. ☒ Yes ☐ NO

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). ☒ Yes ☐ NO

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company"

in Rule 12b-2 of the Exchange Act:

Large accelerated filer	☒	Accelerated filer	☐
Non-accelerated filer	☐	Smaller reporting company	☐
		Emerging growth company	☐

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. ☐

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act): ☐ YES ☒ NO

As of July 20, 2020, the registrant had 669,831,024 shares of Common Stock outstanding.

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CAUTIONARY STATEMENT REGARDING FORWARD-LOOKING STATEMENTS

This Quarterly Report on Form 10-Q contains "forward-looking statements," as that term is defined under the Private Securities Litigation Reform Act of 1995 ("PSLRA"), Section 27A of the Securities Act of 1933, as amended (the "Securities Act"), and Section 21E of the Securities Exchange Act of 1934, as amended (the "Exchange Act"). Forward-looking statements include statements about our expectations, beliefs or intentions regarding our product development efforts, business, financial condition, results of operations, strategies or prospects, including the potential impact of the COVID-19 pandemic on our businesses, operating results, cash flows and/or financial condition. You can identify forward-looking statements by the fact that these statements do not relate strictly to historical or current matters. Rather, forward-looking statements relate to anticipated or expected events, activities, trends or results as of the date they are made. Because forward-looking statements relate to matters that have not yet occurred, these statements are inherently subject to risks and uncertainties that could cause our actual results to differ materially from any future results expressed or implied by the forward-looking statements. Many factors could cause our actual activities or results to differ materially from the activities and results anticipated in forward-looking statements. These factors include those described below and in "Item 1A-Risk Factors" of our Annual Report on Form 10-K for the year ended December 31, 2019 and this Quarterly Report on Form 10-Q, and described from time to time in our other filings with the Securities and Exchange Commission (the "SEC"). We do not undertake any obligation to update forward-looking statements, except to the extent required by applicable law. We intend that all forward-looking statements be subject to the safe-harbor provisions of the PSLRA. These forward-looking statements are only predictions and reflect our views as of the date they are made with respect to future events and financial performance.

Risks and uncertainties, the occurrence of which could adversely affect our business, include the following:

- our business may be materially adversely affected by the recent coronavirus (COVID-19) outbreak;
- we have a history of losses and may not generate sustained positive cash flow sufficient to fund our operations and research and development programs;
- our need for, and ability to obtain, additional financing when needed on favorable terms, or at all;
- adverse results in material litigation matters or governmental inquiries, including, without limitation, pending class action and derivative lawsuits which followed the now settled lawsuit against the Company and its Chairman and Chief Executive Officer by the SEC;
- the risks inherent in developing, obtaining regulatory approvals for and commercializing new, commercially viable and competitive products and treatments;
- our research and development activities may not result in commercially viable products;
- that earlier clinical results of effectiveness and safety may not be reproducible or indicative of future results;
- the success of our relationship with Pfizer in connection with the development of hGH-CTP (Somatrogon);
- that we may fail to obtain regulatory approval for hGH-CTP or successfully commercialize *Rayaldee* and hGH-CTP;
- that we may not generate profits or cash flow from our laboratory operations or substantial revenue from *Rayaldee* and our other pharmaceutical and diagnostic products;
- that currently available over-the-counter and prescription products, as well as products under development by others, may prove to be as or more effective than our products for the indications being studied;
- our ability to build a successful pharmaceutical sales and marketing infrastructure;
- our ability and our distribution and marketing partners' ability to comply with regulatory requirements regarding the sales, marketing and manufacturing of our products and product candidates and the operation of our laboratories;
- the performance of our third-party distribution partners, licensees and manufacturers over which we have limited control;
- our success is dependent on the involvement and continued efforts of our Chairman and Chief Executive Officer;
- integration challenges for acquired businesses;
- availability of insurance coverage with respect to material litigation matters;

- changes in regulation and policies in the United States ("U.S.") and other countries, including increasing downward pressure on healthcare reimbursement;
- our ability to manage our growth and our expanded operations;
- increased competition, including price competition;
- changing relationships with payors, including the various state and multi-state Blues programs, suppliers and strategic partners;
- efforts by third-party payors to reduce utilization and reimbursement for clinical testing services;
- our ability to maintain reimbursement coverage for our products and services, including the *4Kscore* test;
- failure to timely or accurately bill and collect for our services;
- the information technology systems that we rely on may be subject to unauthorized tampering, cyberattack or other data security or privacy incidents that could impact our billing processes or disrupt our operations;
- failure to obtain and retain new clients and business partners, or a reduction in tests ordered or specimens submitted by existing clients;
- failure to establish, and perform to, appropriate quality standards to assure that the highest level of quality is observed in the performance of our testing services;
- failure to maintain the security of patient-related information;
- our ability to obtain and maintain intellectual property protection for our products;
- our ability to defend our intellectual property rights with respect to our products;
- our ability to operate our business without infringing the intellectual property rights of others;
- our ability to attract and retain key scientific and management personnel;
- the risk that the carrying value of certain assets may exceed the fair value of the assets causing us to impair goodwill or other intangible assets;
- failure to obtain and maintain regulatory approval outside the U.S.; and
- legal, economic, political, regulatory, currency exchange, and other risks associated with international operations.

PART I. FINANCIAL INFORMATION

Unless the context otherwise requires, all references in this Quarterly Report on Form 10-Q to the "Company", "OPKO", "we", "our", "ours", and "us" refer to OPKO Health, Inc., a Delaware corporation, including our consolidated subsidiaries.

Item 1. Financial Statements

The accompanying unaudited Notes to Condensed Consolidated Financial Statements are an integral part of these statements.

OPKO Health, Inc. and Subsidiaries
CONDENSED CONSOLIDATED BALANCE SHEETS
(Unaudited)
(In thousands, except share and per share data)

	June 30, 2020	December 31, 2019
ASSETS		
Current assets:		
Cash and cash equivalents	$ 21,612	$ 85,452
Accounts receivable, net	214,352	134,617
Inventory, net	72,965	53,434
Other current assets and prepaid expenses	51,125	50,542
Total current assets	360,054	324,045
Property, plant and equipment, net	130,540	127,111
Intangible assets, net	499,125	528,962
In-process research and development	590,200	590,200
Goodwill	671,599	671,940
Investments	26,260	20,746
Operating lease right-of-use assets	38,469	39,380
Other assets	7,487	6,888
Total assets	$ 2,323,734	$ 2,309,272
LIABILITIES AND EQUITY		
Current liabilities:		
Accounts payable	$ 44,671	$ 62,537
Accrued expenses	210,111	164,925
Current maturities of operating leases	10,298	12,038
Current portion of lines of credit and notes payable	14,463	9,619
Total current liabilities	279,543	249,119
Operating lease liabilities	28,759	27,665
Convertible notes	216,457	211,208
Deferred tax liabilities, net	118,979	118,717
Other long-term liabilities, principally contract liabilities, contingent consideration and line of credit	91,653	87,804
Total long-term liabilities	455,848	445,394
Total liabilities	735,391	694,513
Equity:		
Common Stock - $0.01 par value, 1,000,000,000 shares authorized; 670,378,701 and 670,378,701 shares issued at June 30, 2020 and December 31, 2019, respectively	6,704	6,704
Treasury Stock - 549,907 shares at June 30, 2020 and December 31, 2019, respectively	(1,791)	(1,791)
Additional paid-in capital	3,147,030	3,142,993
Accumulated other comprehensive loss	(25,752)	(22,070)
Accumulated deficit	(1,537,848)	(1,511,077)
Total shareholders' equity	1,588,343	1,614,759
Total liabilities and equity	$ 2,323,734	$ 2,309,272

The accompanying unaudited Notes to Condensed Consolidated Financial Statements are an integral part of these statements.

OPKO Health, Inc. and Subsidiaries
CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS
(Unaudited)
(In thousands, except share and per share data)

	For the three months ended June 30,		For the six months ended June 30,	
	2020	2019	2020	2019
Revenues:				
Revenue from services	$ 250,971	$ 178,458	$ 421,811	$ 357,349
Revenue from products	29,356	28,680	60,430	53,981
Revenue from transfer of intellectual property and other	20,880	19,230	30,433	37,490
Total revenues	301,207	226,368	512,674	448,820
Costs and expenses:				
Cost of service revenue	144,794	130,078	267,680	259,981
Cost of product revenue	17,857	14,145	35,229	28,300
Selling, general and administrative	77,721	88,475	153,852	183,633
Research and development	17,608	28,286	39,369	64,816
Contingent consideration	1,111	(3,775)	251	1,031
Amortization of intangible assets	14,937	16,419	29,874	32,981
Asset impairment charges	—	—	—	655
Total costs and expenses	274,028	273,628	526,255	571,397
Operating income (loss)	27,179	(47,260)	(13,581)	(122,577)
Other income and (expense), net:				
Interest income	5	572	147	1,127
Interest expense	(5,474)	(5,501)	(10,970)	(10,257)
Fair value changes of derivative instruments, net	(13)	(388)	608	27
Other income (expense), net	18,223	(5,874)	5,890	(4,897)
Other income and (expense), net	12,741	(11,191)	(4,325)	(14,000)
Income (loss) before income taxes and investment losses	39,920	(58,451)	(17,906)	(136,577)
Income tax provision	(6,028)	(1,084)	(7,200)	(1,866)
Net income (loss) before investment losses	33,892	(59,535)	(25,106)	(138,443)
Loss from investments in investees	(189)	(271)	(323)	(2,125)
Net Income (loss)	$ 33,703	$ (59,806)	$ (25,429)	$ (140,568)
Income (loss) per share, basic and diluted:				
Income (loss) per share	$ 0.05	$ (0.10)	$ (0.04)	$ (0.24)
Weighted average common shares outstanding, basic and diluted	640,578,794	586,351,045	640,578,794	586,347,645

The accompanying unaudited Notes to Condensed Consolidated Financial Statements are an integral part of these statements.

OPKO Health, Inc. and Subsidiaries
CONDENSED CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME (LOSS)
(Unaudited)
(In thousands)

	For the three months ended June 30,		For the six months ended June 30,	
	2020	2019	2020	2019
Net income (loss)	$ 33,703	$ (59,806)	$ (25,429)	$ (140,568)
Other comprehensive income (loss), net of tax:				
Change in foreign currency translation and other comprehensive income (loss)	4,435	2,878	(3,682)	(220)
Comprehensive income (loss)	$ 38,138	$ (56,928)	$ (29,111)	$ (140,788)

The accompanying unaudited Notes to Condensed Consolidated Financial Statements are an integral part of these statements.

CONSOLIDATED STATEMENTS OF EQUITY
(Unaudited)
(In thousands, except share and per share data)
For the three and six months ended June 30, 2020

	Common Stock		Treasury		Additional Paid-In Capital	Accumulated Other Comprehensive Loss	Accumulated Deficit	Total
	Shares	Dollars	Shares	Dollars				
Balance at March 31, 2020	670,378,701	$ 6,704	$ (549,907)	$ (1,791)	$ 3,145,444	$ (30,187)	$ (1,571,551)	$ 1,548,619
Equity-based compensation expense	—	—	—	—	1,586	—	—	1,586
Net income	—	—	—	—	—	—	33,703	33,703
Other comprehensive income	—	—	—	—	—	4,435	—	4,435
Balance at June 30, 2020	670,378,701	$ 6,704	$ (549,907)	$ (1,791)	$ 3,147,030	$ (25,752)	$ (1,537,848)	$ 1,588,343

	Common Stock		Treasury		Additional Paid-In Capital	Accumulated Other Comprehensive Loss	Accumulated Deficit	Total
	Shares	Dollars	Shares	Dollars				
Balance at December 31, 2019	670,378,701	$ 6,704	(549,907)	$ (1,791)	$ 3,142,993	$ (22,070)	$ (1,511,077)	$ 1,614,759
Equity-based compensation expense	—	—	—	—	4,037	—	—	4,037
Adoption of ASC 326	—	—	—	—	—	—	(1,342)	(1,342)
Net loss	—	—	—	—	—	—	(25,429)	(25,429)
Other comprehensive loss	—	—	—	—	—	(3,682)	—	(3,682)
Balance at June 30, 2020	670,378,701	$ 6,704	(549,907)	$ (1,791)	$ 3,147,030	$ (25,752)	$ (1,537,848)	$ 1,588,343

The accompanying unaudited Notes to Condensed Consolidated Financial Statements are an integral part of these statements.

CONSOLIDATED STATEMENTS OF EQUITY
(Unaudited)
(In thousands, except share and per share data)
For the three and six months ended June 30, 2019

	Common Stock		Treasury					
	Shares	Dollars	Shares	Dollars	Additional Paid-In Capital	Accumulated Other Comprehensive Loss	Accumulated Deficit	Total
Balance at March 31, 2019	616,150,952	$ 6,162	(549,907)	$ (1,791)	$ 3,058,509	$ (23,229)	$ (1,276,914)	$ 1,762,737
Equity-based compensation expense	—	—	—	—	3,122	—	—	3,122
Net loss	—	—	—	—	—	—	(59,806)	(59,806)
Other comprehensive income	—	—	—	—	—	2,878	—	2,878
Balance at June 30, 2019	616,150,952	$ 6,162	(549,907)	$ (1,791)	$ 3,061,631	$ (20,351)	$ (1,336,720)	$ 1,708,931

	Common Stock		Treasury					
	Shares	Dollars	Shares	Dollars	Additional Paid-In Capital	Accumulated Other Comprehensive Loss	Accumulated Deficit	Total
Balance at December 31, 2018	586,881,720	$ 5,869	(549,907)	$ (1,791)	$ 3,004,422	$ (20,131)	$ (1,197,078)	$ 1,791,291
Equity-based compensation expense	—	—	—	—	7,579	—	—	7,579
Exercise of Common Stock options and warrants	19,232	—	—	—	(3)	—	—	(3)
Adoption of ASU 2018-07	—	—	—	—	(926)	—	926	—
2025 convertible notes including share lending arrangement	29,250,000	293	—	—	50,559	—	—	50,852
Net loss	—	—	—	—	—	—	(140,568)	(140,568)
Other comprehensive loss	—	—	—	—	—	(220)	—	(220)
Balance at June 30, 2019	616,150,952	$ 6,162	(549,907)	$ (1,791)	$ 3,061,631	$ (20,351)	$ (1,336,720)	$ 1,708,931

The accompanying unaudited Notes to Condensed Consolidated Financial Statements are an integral part of these statements.

OPKO Health, Inc. and Subsidiaries
CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS
(Unaudited)
(In thousands)

	For the six months ended June 30,	
	2020	2019
Cash flows from operating activities:		
Net loss	$ (25,429)	$ (140,568)
Adjustments to reconcile net loss to net cash used in operating activities:		
Depreciation and amortization	44,318	47,477
Non-cash interest	5,022	2,868
Amortization of deferred financing costs	411	308
Losses from investments in investees	323	2,125
Equity-based compensation – employees and non-employees	4,037	7,579
Realized loss on disposal of fixed assets and sales of equity securities	156	220
Change in fair value of equity securities and derivative instruments	(6,515)	5,431
Change in fair value of contingent consideration	251	1,031
Impairment of assets	—	655
Deferred income tax provision	1,028	168
Changes in assets and liabilities:		
Accounts receivable, net	(81,539)	(4,398)
Inventory, net	(21,905)	(6,225)
Other current assets and prepaid expenses	(2,619)	2,476
Other assets	(61)	136
Accounts payable	(16,753)	12,887
Foreign currency measurement	(2,077)	131
Contract liabilities	(4,026)	(37,015)
Accrued expenses and other liabilities	47,585	2,095
Net cash used in operating activities	(57,793)	(102,619)
Cash flows from investing activities:		
Investments in investees	—	(1,200)
Proceeds from the sale of property, plant and equipment	65	309
Capital expenditures	(17,149)	(6,432)
Net cash used in investing activities	(17,084)	(7,323)
Cash flows from financing activities:		
Issuance of convertible notes, including to related parties	—	200,293
Debt issuance costs	—	(7,762)
Proceeds from the exercise of Common Stock options and warrants	—	(3)
Borrowings on lines of credit	393,651	39,695
Repayments of lines of credit	(382,374)	(78,824)
Redemption of 2033 Senior Notes	—	(28,800)
Net cash provided by financing activities	11,277	124,599
Effect of exchange rate changes on cash and cash equivalents	(240)	(15)
Net increase (decrease) in cash and cash equivalents	(63,840)	14,642
Cash and cash equivalents at beginning of period	85,452	96,473
Cash and cash equivalents at end of period	$ 21,612	$ 111,115
SUPPLEMENTAL INFORMATION:		
Interest paid	$ 5,578	$ 5,411
Income taxes paid (received), net of refunds	$ (208)	$ 2,132
Operating lease right-of-use assets due to adoption of ASU No. 2016-02	$ —	$ 29,640
Operating lease liabilities due to adoption of ASU No. 2016-02	$ —	$ 30,049
Non-cash financing:		
Shares issued upon the conversion of:		
Common Stock options and warrants, surrendered in net exercise	$ —	$ 20

The accompanying unaudited Notes to Condensed Consolidated Financial Statements are an integral part of these statements.

OPKO Health, Inc. and Subsidiaries
NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (unaudited)

NOTE 1 BUSINESS AND ORGANIZATION

We are a diversified healthcare company that seeks to establish industry-leading positions in large and rapidly growing medical markets. Our diagnostics business includes BioReference Laboratories, Inc. ("BioReference"), one of the nation's largest full service laboratories with a core genetic testing business and an almost 300-person sales and marketing team focused on driving growth and leveraging new products, including the *4Kscore* test. Our pharmaceutical business features *Rayaldee*, an FDA-approved treatment for secondary hyperparathyroidism ("SHPT") in adults with stage 3 or 4 chronic kidney disease ("CKD") and vitamin D insufficiency (launched in November 2016); OPK88004, a selective androgen receptor modulator which we are exploring for various potential indications; and OPK88003, a once weekly oxyntomodulin for type 2 diabetes and obesity which is a clinically advanced drug candidate among the new class of GLP-1 glucagon receptor dual agonists (phase 2b). Our pharmaceutical business also features hGH-CTP, a once-weekly human growth hormone that recently successfully completed a phase 3 trial and for which we have partnered with Pfizer Inc. ("Pfizer"). We are incorporated in Delaware, and our principal executive offices are located in leased offices in Miami, Florida.

Through BioReference, we provide laboratory testing services, primarily to customers in the larger metropolitan areas across New York, New Jersey, Florida, Texas, Maryland, California, Pennsylvania, Delaware, Washington, DC, Illinois and Massachusetts, as well as to customers in a number of other states. We offer a comprehensive test menu of clinical diagnostics for blood, urine and tissue analysis. This includes hematology, clinical chemistry, immunoassay, infectious diseases, serology, hormones, and toxicology assays, as well as Pap smear, anatomic pathology (biopsies) and other types of tissue analysis. We market our laboratory testing services directly to physicians, geneticists, hospitals, clinics, correctional and other health facilities.

We operate established pharmaceutical platforms in Ireland, Chile, Spain, and Mexico, which are generating revenue and from which we expect to generate positive cash flow and facilitate future market entry for our products currently in development. In addition, we have a development and commercial supply pharmaceutical company and a global supply chain operation and holding company in Ireland. We own a specialty active pharmaceutical ingredients ("APIs") manufacturer in Israel, which we expect will facilitate the development of our pipeline of molecules and compounds for our proprietary molecular diagnostic and therapeutic products.

Our research and development activities are primarily performed at facilities in Woburn, MA, Waterford, Ireland, Kiryat Gat, Israel, and Barcelona, Spain.

NOTE 2 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Basis of presentation. The accompanying unaudited Condensed Consolidated Financial Statements have been prepared in accordance with accounting principles generally accepted in the U.S. ("GAAP") and with the instructions to Form 10-Q and Article 10 of Regulation S-X. Accordingly, they do not include all information and notes required by GAAP for complete financial statements. In the opinion of management, all adjustments (consisting of only normal recurring adjustments or adjustments otherwise disclosed herein) considered necessary to present fairly the Company's results of operations, financial position and cash flows have been made. The results of operations and cash flows for the three and six months ended June 30, 2020 are not necessarily indicative of the results of operations and cash flows that may be reported for the remainder of 2020 or any other future periods. The unaudited Condensed Consolidated Financial Statements should be read in conjunction with the audited Consolidated Financial Statements and the Notes to Consolidated Financial Statements included in our Annual Report on Form 10-K for the year ended December 31, 2019.

Principles of consolidation. The accompanying unaudited Condensed Consolidated Financial Statements include the accounts of OPKO Health, Inc. and of our wholly owned subsidiaries. All intercompany accounts and transactions are eliminated in consolidation.

Use of estimates. The preparation of financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ significantly from these estimates.

Impact of COVID-19. As the disease caused by SARS-CoV-2, a novel strain of coronavirus, COVID-19 continues to spread and severely impact the economy of the United States and other countries around the world, we are committed to being a part of the coordinated public and private sector response to this unprecedented challenge. In response to the COVID-19 pandemic, BioReference Laboratories is accepting specimens for two types of COVID-19 testing, diagnostic molecular testing and serology antibody testing, from healthcare providers, clinics and health and hospital systems throughout the U.S., to promote earlier diagnosis of the coronavirus, assess a patient's immune response to the virus and aid in limiting spread of infection. In addition to its robust nationwide COVID-19 testing offering, BioReference has partnerships with the New York State Department of Health, the New York City Health and Hospital Corporation (NYC Health + Hospitals), the State of New Jersey, the State of Florida and the cities of Detroit and Miami, among others, to provide COVID-19 testing. BioReference performed approximately 331.6 thousand serology antibody tests and 2.2 million diagnostic molecular tests for COVID-19 during the three months ended June 30, 2020, which represented 28.1% of BioReference's total test volume during the second quarter of 2020. For serologic antibody testing, BioReference has partnered with the State of New York, New York City and a number of employers and government agencies with the capacity to perform up to 400,000 tests per day and for diagnostic molecular tests, BioReference has the capacity to perform more than 50,000 tests per day.

We have put preparedness plans in place at our facilities to maintain continuity of operations, while also taking steps to keep colleagues and customers healthy and safe. In line with recommendations to reduce large gatherings and increase social distancing, we have, where practical, transitioned many office-based colleagues to a remote work environment.

Beginning in March 2020, BioReference experienced, and continues to experience, a decline in routine clinical and genomics testing volumes due to the COVID-19 pandemic. Excluding COVID-19 test volumes, for the three months ended June 30, 2020, volumes in our diagnostics segment were down 46.5% as compared to volumes in the second quarter of 2019. Additionally, sales of *Rayaldee* have not increased in accordance with its expected growth trajectory as a result of challenges in onboarding new patients due to the COVID-19 pandemic. Federal, state and local governmental policies and initiatives designed to reduce the transmission of COVID-19 have resulted in, among other things, a significant reduction in physician office visits, the cancellation of elective medical procedures, customers closing or severely curtailing their operations (voluntarily or in response to government orders), and the adoption of work-from-home or shelter-in-place policies, all of which have had, and may continue to have, an adverse impact on our operating results, cash flows and financial condition, including continued declines in testing volumes. It is also possible that we will experience an adverse impact on cash collections as a result of the impact of the COVID-19 pandemic. As stay at home orders and other restrictions have been lifted, we have seen our routine clinical and genomic testing volumes trending towards normalization with prior periods, however should stay at home orders or other restrictions be reenacted, we could see our routine testing levels decline. We also continue to see a substantial need for COVID-19 testing by our existing clients and expect new clients as infection rates for the virus continue to increase across the country.

In March 2020, in response to the COVID-19 pandemic, the CARES Act was signed into law. The CARES Act provides numerous tax provisions and other stimulus measures, including temporary changes regarding the prior and future utilization of net operating losses, temporary changes to the prior and future limitations on interest deductions, temporary suspension of certain payment requirements for the employer portion of Social Security taxes, technical corrections from prior tax legislation for tax depreciation of certain qualified improvement property, and the creation of certain payroll tax credits associated with the retention of employees.

We have received, or expect to receive a number of benefits under The CARES Act including, but not limited to:

- We received approximately $14 million under The Centers for Medicare & Medicaid Services (CMS) Accelerated and Advance Payment Program, which provides accelerated payments to Medicare providers/suppliers working to provide treatment to patients and combat the COVID-19 pandemic, and the amounts advanced are loans which will be offset against future claims and must be repaid. These loans are initially recorded as contract liabilities included in Accrued expenses and are recognized in Revenue from services when earned;
- We are eligible to defer depositing the employer's share of Social Security taxes for payments due from March 27, 2020 through December 31, 2020, interest-free and penalty-free;
- We received approximately $6.2 million during the three months ended June 30, 2020 from the initial tranche of funds that was distributed to healthcare providers for related expenses or lost revenues that are attributable to the COVID-19 pandemic. We recognized the $6.2 million grant in other revenues for the three and six months ended June 30, 2020;
- U.S. Department of Health and Human Services (HHS), will provide claims reimbursement to healthcare providers generally at Medicare rates for testing uninsured patients; and

- Clinical laboratories are provided a one-year reprieve from the reporting requirements under the Protecting Access to Medicare Act ("PAMA") as well as a one-year delay of reimbursement rate reductions for clinical laboratory services provided under Medicare that were scheduled to take place in 2021.

Since the pandemic began in the U.S., we have invested, and expect to continue to invest, in testing capabilities and infrastructure to meet demand for our molecular and antibody testing for COVID-19.

Cash and cash equivalents. Cash and cash equivalents include short-term, interest-bearing instruments with original maturities of 90 days or less at the date of purchase. We also consider all highly liquid investments with original maturities at the date of purchase of 90 days or less as cash equivalents. These investments include money markets, bank deposits, certificates of deposit and U.S. treasury securities.

Inventories. Inventories are valued at the lower of cost and net realizable value. Cost is determined by the first-in, first-out method. We consider such factors as the amount of inventory on hand, estimated time required to sell such inventories, remaining shelf-life, and current market conditions to determine whether inventories are stated at the lower of cost and net realizable value. Inventories at our diagnostics segment consist primarily of purchased laboratory supplies, which is used in our testing laboratories. Inventory obsolescence expense for the six months ended June 30, 2020 and 2019 was $1.7 million and $1.3 million, respectively.

Pre-launch inventories. We may accumulate commercial quantities of certain product candidates prior to the date we anticipate that such products will receive final U.S. FDA approval. The accumulation of such pre-launch inventories involves the risk that such products may not be approved for marketing by the FDA on a timely basis, or ever. This risk notwithstanding, we may accumulate pre-launch inventories of certain products when such action is appropriate in relation to the commercial value of the product launch opportunity. In accordance with our policy, this pre-launch inventory is expensed.

Goodwill and intangible assets. Goodwill represents the difference between the purchase price and the estimated fair value of the net assets acquired accounted for by the acquisition method of accounting. Refer to Note 4. Goodwill, in-process research and development ("IPR&D") and other intangible assets acquired in business combinations, licensing and other transactions was $1.8 billion at both at June 30, 2020 and December 31, 2019.

Assets acquired and liabilities assumed in business combinations, licensing and other transactions are generally recognized at the date of acquisition at their respective fair values. Any excess of the purchase price over the estimated fair values of the net assets acquired is recognized as goodwill. At acquisition, we generally determine the fair value of intangible assets, including IPR&D, using the "income method."

Subsequent to their acquisition, goodwill and indefinite lived intangible assets are tested at least annually as of October 1 for impairment, or when events or changes in circumstances indicate it is more likely than not that the carrying amount of such assets may not be recoverable.

Goodwill was $671.6 million and $671.9 million respectively, at June 30, 2020 and December 31, 2019. Estimating the fair value of a reporting unit for goodwill impairment is highly sensitive to changes in projections and assumptions and changes in assumptions could potentially lead to impairment. We perform sensitivity analyses around our assumptions in order to assess the reasonableness of the assumptions and the results of our testing. Ultimately, potential changes in these assumptions may impact the estimated fair value of a reporting unit and result in an impairment if the fair value of such reporting unit is less than its carrying value.

Net intangible assets other than goodwill were $1.1 billion, including IPR&D of $590.2 million, at both June 30, 2020 and December 31, 2019. Intangible assets are highly vulnerable to impairment charges, particularly newly acquired assets for recently launched products and IPR&D. Considering the high risk nature of research and development and the industry's success rate of bringing developmental compounds to market, IPR&D impairment charges may occur in future periods. Estimating the fair value of IPR&D for potential impairment is highly sensitive to changes in projections and assumptions and changes in assumptions could potentially lead to impairment.

Upon obtaining regulatory approval, IPR&D assets are then accounted for as a finite-lived intangible asset and amortized on a straight-line basis over its estimated useful life. If the project is abandoned, the IPR&D asset is charged to expense. Finite lived intangible assets are tested for impairment when events or changes in circumstances indicate it is more likely than not that the carrying amount of such assets may not be recoverable. The testing includes a comparison of the carrying amount of the asset to its estimated undiscounted future cash flows expected to be generated by the asset. If the carrying amount of an asset exceeds its estimated undiscounted future cash flows, then an impairment charge is recognized for the amount by which the carrying amount of the asset exceeds the fair value of the asset.

We believe that our estimates and assumptions are reasonable and otherwise consistent with assumptions that marketplace participants would use in their estimates of fair value. However, if future results are not consistent with our estimates and assumptions, including as a result of the COVID-19 global pandemic, then we may be exposed to an impairment charge, which could be material.

We amortize intangible assets with definite lives on a straight-line basis over their estimated useful lives, ranging from3 to 20 years. We use the straight-line method of amortization as there is no reliably determinable pattern in which the economic benefits of our intangible assets are consumed or otherwise used up. Amortization expense was $29.9 million and $33.0 million for the six months ended June 30, 2020 and 2019, respectively.

Fair value measurements. The carrying amounts of our cash and cash equivalents, accounts receivable, accounts payable and short-term debt approximate their fair value due to the short-term maturities of these instruments. Investments that are considered equity securities as of June 30, 2020 and December 31, 2019 are predominately carried at fair value. Our debt under the credit agreement with JPMorgan Chase Bank, N.A. approximates fair value due to the variable rate of interest applicable to such debt.

In evaluating the fair value information, considerable judgment is required to interpret the market data used to develop the estimates. The use of different market assumptions and/or different valuation techniques may have a material effect on the estimated fair value amounts. Accordingly, the estimates of fair value presented herein may not be indicative of the amounts that could be realized in a current market exchange. Refer to Note 8.

Contingent consideration. Each period we revalue the contingent consideration obligations associated with certain prior acquisitions to their fair value and record increases in the fair value as contingent consideration expense and decreases in the fair value as a reduction in contingent consideration expense. Changes in contingent consideration result from changes in the assumptions regarding probabilities of successful achievement of related milestones, the estimated timing in which the milestones are achieved and the discount rate used to estimate the fair value of the liability. Contingent consideration may change significantly as our development programs progress, revenue estimates evolve and additional data is obtained, impacting our assumptions. The assumptions used in estimating fair value require significant judgment. The use of different assumptions and judgments could result in a materially different estimate of fair value which may have a material impact on our results from operations and financial position.

Derivative financial instruments. We record derivative financial instruments on our Condensed Consolidated Balance Sheet at their fair value and recognize the changes in the fair value in our Condensed Consolidated Statement of Operations when they occur, the only exception being derivatives that qualify as hedges. For the derivative instrument to qualify as a hedge, we are required to meet strict hedge effectiveness and contemporaneous documentation requirements at the initiation of the hedge and assess the hedge effectiveness on an ongoing basis over the life of the hedge. At June 30, 2020 and December 31, 2019, our foreign currency forward contracts held to economically hedge inventory purchases did not meet the documentation requirements to be designated as hedges. Accordingly, we recognize all changes in the fair values of our derivatives instruments, net, in our Condensed Consolidated Statement of Operations. Refer to Note 9.

Property, plant and equipment. Property, plant and equipment are recorded at cost or fair value if acquired in a business combination. Depreciation is provided using the straight-line method over the estimated useful lives of the assets and includes amortization expense for assets capitalized under finance leases. The estimated useful lives by asset class are as follows: software - 3 years, machinery, medical and other equipment - 5-8 years, furniture and fixtures - 5-12 years, leasehold improvements - the lesser of their useful life or the lease term, buildings and improvements - 10-40 years, and automobiles - 3-5 years. Expenditures for repairs and maintenance are charged to expense as incurred. Depreciation expense was $14.4 million and $14.5 million for the six months ended June 30, 2020 and 2019, respectively. Assets held under finance leases are included within Property, plant and equipment, net in our Condensed Consolidated Balance Sheet and are amortized over the shorter of their useful lives or the expected term of their related leases.

Impairment of long-lived assets. Long-lived assets, such as property and equipment, are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. Recoverability of assets to be held and used is measured by a comparison of the carrying amount of an asset to estimated undiscounted future cash flows expected to be generated by the asset. If the carrying amount of an asset exceeds its estimated future cash flows, then an impairment charge is recognized for the amount by which the carrying amount of the asset exceeds the fair value of the asset.

Income taxes. Income taxes are accounted for under the asset-and-liability method. Deferred tax assets and liabilities are recognized for the future tax consequences attributable to differences between the financial statement carrying amounts of existing assets and liabilities and the respective tax bases and for operating loss and tax credit carryforwards. Deferred tax assets and liabilities are measured using enacted tax rates expected to apply to taxable income in the years in which those

temporary differences are expected to be recovered or settled. The effect on deferred tax assets and liabilities of a change in tax rates is recognized in operations in the period that includes the enactment date. We periodically evaluate the realizability of our net deferred tax assets. Our tax accruals are analyzed periodically and adjustments are made as events occur to warrant such adjustment. Valuation allowances on certain U.S. deferred tax assets and non-U.S. deferred tax assets are established, because realization of these tax benefits through future taxable income does not meet the more-likely-than-not threshold.

We operate in various countries and tax jurisdictions globally. For interim reporting purposes, we record income taxes based on the expected effective income tax rate, taking into consideration year to date and global forecasted tax results. For the three and six months ended June 30, 2020, the tax rate differed from the U.S. federal statutory rate of 21% primarily due to the valuation allowance against certain U.S. and non-U.S. deferred tax assets, the relative mix in earnings and losses in the U.S. versus foreign tax jurisdictions, and the impact of certain discrete tax events and operating results in tax jurisdictions which do not result in a tax benefit.

Revenue recognition. We recognize revenue when a customer obtains control of promised goods or services in accordance with Accounting Standards Codification Topic 606, *Revenue from Contracts with Customers* ("Topic 606"). The amount of revenue that is recorded reflects the consideration that we expect to receive in exchange for those goods or services. We apply the following five-step model in order to determine this amount: (i) identify the contract(s) with a customer; (ii) identify the performance obligations in the contract; (iii) determine the transaction price; (iv) allocate the transaction price to the performance obligations in the contract; and (v) recognize revenue when (or as) we satisfy a performance obligation.

We apply the five-step model to contracts when it is probable that we will collect the consideration we are entitled to in exchange for the goods or services we transfer to the customer. At contract inception, once the contract is determined to be within the scope of Topic 606, we review the contract to determine which performance obligations we must deliver and which of these performance obligations are distinct. We recognize as revenue the amount of the transaction price that is allocated to the respective performance obligation when the performance obligation is satisfied or as it is satisfied. For a complete discussion of accounting for Revenues from services, Revenues from products and Revenue from transfer of intellectual property and other, refer to Note 12.

Concentration of credit risk and allowance for credit losses Financial instruments that potentially subject us to concentrations of credit risk consist primarily of accounts receivable. Substantially all of our accounts receivable are with either companies in the healthcare industry or patients. However, credit risk is limited due to the number of our clients as well as their dispersion across many different geographic regions.

While we have receivables due from federal and state governmental agencies, we do not believe that such receivables represent a credit risk because the related healthcare programs are funded by federal and state governments, and payment is primarily dependent upon submitting appropriate documentation. At June 30, 2020 and December 31, 2019, receivable balances (net of explicit and implicit price concessions) from Medicare and Medicaid were 11% and 6%, respectively, of our consolidated Accounts receivable, net. At June 30, 2020, receivable balances (net of explicit and implicit price concessions) due directly from states, cities and other municipalities, specifically related to our real-time reverse-transcription polymerase chain reaction (real-time RT-PCR) assay to detect the 2019 novel coronavirus disease (COVID-19), were 37.6% of our consolidated Accounts receivable, net.

The portion of our accounts receivable due from individual patients comprises the largest portion of credit risk. At June 30, 2020 and December 31, 2019, receivables due from patients represented approximately 2.0% and 2.5%, respectively, of our consolidated Accounts receivable, net.

We assess the collectability of accounts receivable balances by considering factors such as historical collection experience, customer credit worthiness, the age of accounts receivable balances, regulatory changes and current economic conditions and trends that may affect a customer's ability to pay. Actual results could differ from those estimates. The allowance for credit losses was $1.6 million and $1.9 million at June 30, 2020 and December 31, 2019, respectively. The credit loss expense for the six months ended June 30, 2020 and 2019 was $0.2 million and $0.2 million, respectively.

Equity-based compensation. We measure the cost of services received in exchange for an award of equity instruments based on the grant-date fair value of the award. That cost is recognized in the Condensed Consolidated Statement of Operations over the period during which an employee is required to provide service in exchange for the award. We record excess tax benefits realized from the exercise of stock options as cash flows from operations. For the six months ended June 30, 2020 and 2019, we recorded $4.0 million and $7.6 million, respectively, of equity-based compensation expense.

Research and development expenses. Research and development expenses include external and internal expenses. External expenses include clinical and non-clinical activities performed by contract research organizations, lab services, purchases of drug and diagnostic product materials and manufacturing development costs. Research and development

employee-related expenses include salaries, benefits and equity-based compensation expense. Other internal research and development expenses are incurred to support overall research and development activities and include expenses related to general overhead and facilities. We expense these costs in the period in which they are incurred. We estimate our liabilities for research and development expenses in order to match the recognition of expenses to the period in which the actual services are received. As such, accrued liabilities related to third party research and development activities are recognized based upon our estimate of services received and degree of completion of the services in accordance with the specific third party contract.

Research and development expense includes costs for in-process research and development projects acquired in asset acquisitions which have not reached technological feasibility and which have no alternative future use. For in-process research and development projects acquired in business combinations, the in-process research and development project is capitalized and evaluated for impairment until the development process has been completed. Once the development process has been completed the asset will be amortized over its remaining estimated useful life.

Segment reporting. Our chief operating decision-maker ("CODM") is Phillip Frost, M.D., our Chairman and Chief Executive Officer. Our CODM reviews our operating results and operating plans and makes resource allocation decisions on a Company-wide or aggregate basis. We manage our operations in two reportable segments, pharmaceutical and diagnostics. The pharmaceutical segment consists of our pharmaceutical operations in Chile, Mexico, Ireland, Israel and Spain, *Rayaldee* product sales and our pharmaceutical research and development. The diagnostics segment primarily consists of clinical laboratory operations through BioReference and point-of-care operations. There are no significant inter-segment sales. We evaluate the performance of each segment based on operating profit or loss. There is no inter-segment allocation of interest expense or income taxes. Refer to Note 14.

Shipping and handling costs. We do not charge customers for shipping and handling costs. Shipping and handling costs are classified as Cost of revenues in the Condensed Consolidated Statement of Operations.

Foreign currency translation. The financial statements of certain of our foreign operations are measured using the local currency as the functional currency. The local currency assets and liabilities are generally translated at the rate of exchange to the U.S. dollar on the balance sheet date and the local currency revenues and expenses are translated at average rates of exchange to the U.S. dollar during the reporting periods. Foreign currency transaction gains (losses) have been reflected as a component of Other income (expense), net within the Condensed Consolidated Statement of Operations and foreign currency translation gains (losses) have been included as a component of the Condensed Consolidated Statement of Comprehensive Income (Loss).

Variable interest entities. The consolidation of a variable interest entity ("VIE") is required when an enterprise has a controlling financial interest. A controlling financial interest in a VIE will have both of the following characteristics: (a) the power to direct the activities of a VIE that most significantly impact the VIE's economic performance and (b) the obligation to absorb losses of the VIE that could potentially be significant to the VIE. Refer to Note 5.

Investments. We have made strategic investments in development stage and emerging companies. We record these investments as equity method investments or as equity securities based on our percentage of ownership and whether we have significant influence over the operations of the investees. For investments classified under the equity method of accounting, we record our proportionate share of their losses in Losses from investments in investees in our Condensed Consolidated Statement of Operations. Refer to Note 5. For investments classified as equity securities, we record changes in their fair value as Other income (expense) in our Condensed Consolidated Statement of Operations based on their closing price per share at the end of each reporting period, unless the equity security does not have a readily determinable fair value. Refer to Note 5.

Recently adopted accounting pronouncements.

In June 2016, the FASB issued ASU No. 2016-13, "Financial Instruments - Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments," which amends the impairment model by requiring entities to use a forward-looking approach based on expected losses rather than incurred losses to estimate credit losses on certain types of financial instruments, including trade receivables. This may result in the earlier recognition of allowances for losses. The ASU is effective for public entities for fiscal years beginning after December 15, 2019, with early adoption permitted. The adoption of ASU 2016-13 on January 1, 2020, did not have a significant impact on our Condensed Consolidated Financial Statements.

NOTE 3 EARNINGS (LOSS) PER SHARE

Basic income (loss) per share is computed by dividing our net income (loss) by the weighted average number of shares of our common stock par value $0.01 per share ("Common Stock") outstanding during the period. Shares of Common Stock outstanding under the share lending arrangement entered into in conjunction with the 2025 Notes (as defined in Note 6) are excluded from the calculation of basic and diluted earnings per share because the borrower of the shares is required under the share lending arrangement to refund any dividends paid on the shares lent. Refer to Note 6. For diluted earnings per share, the dilutive impact of stock options and warrants is determined by applying the "treasury stock" method. The dilutive impact of the 2033 Senior Notes, the 2023 Convertible Notes and the 2025 Notes (each, as defined herein and as discussed in Note 6) has been considered using the "if converted" method. For periods in which their effect would be antidilutive, no effect is given to outstanding options, warrants or the potentially dilutive shares issuable pursuant to the 2033 Senior Notes, the 2023 Convertible Notes and the 2025 Notes in the dilutive computation.

A total of 69,505,513 and 68,933,402 potential shares of Common Stock were excluded from the calculation of diluted net loss per share for the three months ended June 30, 2020, and 2019, respectively, because their inclusion would be antidilutive. A total of 69,347,867 and 61,760,134 potential shares of Common Stock were excluded from the calculation of diluted net loss per share for the six months ended June 30, 2020, and 2019, respectively, because their inclusion would be antidilutive. A full presentation of diluted earnings per share has not been provided because the required adjustments to the numerator and denominator resulted in diluted earnings per share equivalent to basic earnings per share.

During the three months ended June 30, 2020, and 2019,no Common Stock options or Common Stock warrants to purchase shares of our Common Stock were exercised, resulting in the issuance of no shares of Common Stock.

During the six months ended June 30, 2020,no Common Stock options or Common Stock warrants to purchase shares of our Common Stock were exercised, resulting in the issuance of no shares of Common Stock.

During the six months ended June 30, 2019,24,877 Common Stock options and Common Stock warrants to purchase shares of our Common Stock were exercised, resulting in the issuance of 19,232 shares of Common Stock. Of the 24,877 Common Stock options and Common Stock warrants exercised,5,645 shares of Common Stock were surrendered in lieu of a cash payment via the net exercise feature of the agreements.

NOTE 4 COMPOSITION OF CERTAIN FINANCIAL STATEMENT CAPTIONS

(In thousands)	June 30, 2020	December 31, 2019
Accounts receivable, net:		
Accounts receivable	$ 215,925	$ 136,551
Less: allowance for credit losses	(1,573)	(1,934)
	$ 214,352	$ 134,617
Inventories, net:		
Consumable supplies	$ 41,298	$ 23,005
Finished products	24,259	25,142
Work in-process	4,711	3,238
Raw materials	5,826	4,586
Less: inventory reserve	(3,129)	(2,537)
	$ 72,965	$ 53,434
Other current assets and prepaid expenses:		
Taxes recoverable	$ 12,135	$ 19,808
Prepaid expenses	12,999	8,147
Prepaid insurance	6,274	3,486
Other receivables	661	3,262
Other	19,056	15,839
	$ 51,125	$ 50,542
Intangible assets, net:		
Customer relationships	$ 445,144	$ 445,408
Technologies	296,251	296,246
Trade names	49,771	49,786
Covenants not to compete	16,318	16,318
Licenses	5,766	5,766
Product registrations	7,109	7,578
Other	6,100	6,094
Less: accumulated amortization	(327,334)	(298,234)
	$ 499,125	$ 528,962
Accrued expenses:		
Inventory received but not invoiced	$ 49,005	$ 13,751
Commitments and Contingencies	38,668	38,635
Employee benefits	34,086	33,671
Contract liabilities	16,570	19,196
Clinical trials	6,079	8,122
Contingent consideration	2,375	2,375
Finance leases short-term	2,435	2,743
Professional fees	4,009	1,333
Other	56,884	45,099
	$ 210,111	$ 164,925

(In thousands)	June 30, 2020	December 31, 2019
Other long-term liabilities:		
Line of credit	$ 51,489	$ 44,749
Contingent consideration	7,559	7,308
Mortgages and other debts payable	4,201	3,906
Finance leases long-term	2,960	4,046
Contract liabilities	1,170	2,571
Other	24,274	25,224
	$ 91,653	$ 87,804

Our intangible assets and goodwill relate principally to our completed acquisitions of OPKO Renal, OPKO Biologics, EirGen Pharma Limited ("EirGen") and BioReference. We amortize intangible assets with definite lives on a straight-line basis over their estimated useful lives. The estimated useful lives by asset class are as follows: technologies - 7-17 years, customer relationships - 7-20 years, product registrations - 7-10 years, covenants not to compete - 5 years, trade names - 5-10 years, other 9-13 years. We do not anticipate capitalizing the cost of product registration renewals, rather we expect to expense these costs, as incurred. Our goodwill is not tax deductible for income tax purposes in any jurisdiction in which we operate.

The changes in value of the intangible assets and goodwill during the six months ended June 30, 2020 were primarily due to foreign currency fluctuations between the Chilean Peso, the Euro and the Shekel against the U.S. dollar.

The following table summarizes the changes in Goodwill by reporting unit during the six months ended June 30, 2020.

	2020		
(In thousands)	Balance at January 1	Foreign exchange and other	Balance at June 30th
Pharmaceuticals			
Rayaldee	$ 85,605	$ 100	$ 85,705
OPKO Chile	4,348	(450)	3,898
OPKO Biologics	139,784	—	139,784
OPKO Health Europe	7,394	9	7,403
Diagnostics			
BioReference	434,809	—	434,809
	$ 671,940	$ (341)	$ 671,599

NOTE 5 INVESTMENTS

Investments

The following table reflects the accounting method, carrying value and underlying equity in net assets of our unconsolidated investments as of June 30, 2020:

(in thousands)

Investment type	Investment Carrying Value	Underlying Equity in Net Assets
Equity method investments	$ 561	$ 2,370
Variable interest entity, equity method	836	—
Equity securities	24,777	
Equity securities with no readily determinable fair value	35	
Warrants and options	51	
Total carrying value of investments	$ 26,260	

Equity method investments

Our equity method investments consist of investments in Pharmsynthez (ownership9%), Cocrystal Pharma, Inc. ("COCP") (5%), Non-Invasive Monitoring Systems, Inc. ("NIMS") (1%), Neovasc, Inc. ("Neovasc") (2%), InCellDx, Inc. ("InCellDx") (29%), BioCardia, Inc. ("BioCardia") (2%), and Xenetic Biosciences, Inc. ("Xenetic") (3%). The aggregate total assets, liabilities, and net losses of our equity method investees as of and for the six months ended June 30, 2020 were $79.7 million, $32.4 million, and $26.6 million, respectively. We have determined that we and/or our related parties can significantly influence control of our equity method investments through our board representation and/or voting power. Accordingly, we account for our investment in these entities under the equity method and record our proportionate share of their losses in Loss from investments in investees in our Condensed Consolidated Statement of Operations. The aggregate value of our equity method investments based on the quoted market prices of their respective shares of common stock and the number of shares held by us as of June 30, 2020 was $7.9 million.

Equity Securities

Our equity securities consist of investments in Phio Pharmaceuticals ("Phio") (ownership0.02%), VBI Vaccines Inc. ("VBI") (3%), ChromaDex Corporation ("ChromaDex") (0.1%), MabVax Therapeutics Holdings, Inc. ("MabVax") (1%), and Eloxx Pharmaceuticals, Inc. ("Eloxx") (3%). We have determined that our ownership, along with that of our related parties, does not provide us with significant influence over the operations of these investments. Accordingly, we account for our investment in these entities as equity securities, and we record changes in the fair value of these investments in Other income (expense) each reporting period when they have readily determinable fair value. Equity securities without a readily determinable fair value are adjusted to fair value when there is an observable price change. Net gains and losses on our equity securities for the six months ended June 30, 2020 were as follows:

(in thousands)

Equity Securities	For the six months ended June 30, 2020
Net gains and losses recognized during the period on equity securities	$ 5,907
Less: Net gains and losses realized during the period on equity securities	—
Unrealized net gains recognized during the period on equity securities still held at the reporting date	$ 5,907

Sales of investments

Gains (losses) included in earnings from sales of our investments are recorded in Other income (expense), net in our Condensed Consolidated Statement of Operations. We did not have significant sales activity during the six months ended June 30, 2020 and 2019. The cost of securities sold is based on the specific identification method.

Warrants and options

In addition to our equity method investments and equity securities, we hold options to purchase47 thousand additional shares of BioCardia, 33 thousand of which were vested as of June 30, 2020, and 33 thousand, 0.7 million, 40 thousand and 404

warrants to purchase shares of COCP, InCellDx, Inc., Xenetic, and Phio, respectively. We recorded the changes in the fair value of the options and warrants in Fair value changes of derivative instruments, net in our Condensed Consolidated Statement of Operations. We also recorded the fair value of the options and warrants in Investments, net in our Condensed Consolidated Balance Sheet. See further discussion of the Company's options and warrants in Note 8 and Note 9.

Investments in variable interest entities

We have determined that we hold variable interests in Zebra Biologics, Inc. ("Zebra") based on our assessment that Zebra does not have sufficient resources to carry out its principal activities without additional financial support.

We own 1,260,000 shares of Zebra Series A-2 Preferred Stock and 900,000 shares of Zebra restricted common stock (ownership29% at June 30, 2020). Zebra is a privately held biotechnology company focused on the discovery and development of biosuperior antibody therapeutics and complex drugs. Dr. Richard Lerner, M.D., a member of our Board of Directors, is a founder of Zebra and, along with Dr. Frost, serves as a member of Zebra's Board of Directors.

In order to determine the primary beneficiary of Zebra, we evaluated our investment and our related parties' investment, as well as our investment combined with the related parties' investment to identify if we had the power to direct the activities that most significantly impact the economic performance of Zebra. Based on the capital structure, governing documents and overall business operations of Zebra, we determined that, while a VIE, we do not have the power to direct the activities that most significantly impact Zebra's economic performance and have no obligation to fund expected losses. We determined, however, that we can significantly influence control of Zebra through our board representation and voting power. Therefore, we have the ability to exercise significant influence over Zebra's operations and account for our investment in Zebra under the equity method.

NOTE 6 DEBT

On February 25, 2020, we entered into a credit agreement with an affiliate of Dr. Frost, pursuant to which the lender committed to provide us with an unsecured line of credit in the amount of $100 million. Borrowings under the line of credit will bear interest at a rate of 11% per annum and may be repaid and reborrowed at any time. The credit agreement includes various customary remedies for the lender following an event of default, including the acceleration of repayment of outstanding amounts under line of credit. The line of credit matures on February 25, 2025. The line of credit also calls for a commitment fee equal to 0.25% per annum of the unused portion of the line. As of June 30, 2020, no funds were borrowed under the line of credit.

In February 2019, we issued $200.0 million aggregate principal amount of Convertible Senior Notes due 2025 (the "2025 Notes") in an underwritten public offering. The 2025 Notes bear interest at a rate of 4.50% per year, payable semiannually in arrears on February 15 and August 15 of each year. The notes mature on February 15, 2025, unless earlier repurchased, redeemed or converted.

Holders may convert their 2025 Notes into shares of Common Stock at their option at any time prior to the close of business on the business day immediately preceding November 15, 2024 only under the following circumstances: (1) during any calendar quarter commencing after the calendar quarter ended March 31, 2019 (and only during such calendar quarter), if the last reported sale price of our Common Stock for at least 20 trading days (whether or not consecutive) during a period of 30 consecutive trading days ending on the last trading day of the immediately preceding calendar quarter is greater than or equal to 130% of the conversion price on each applicable trading day; (2) during the five business day period after any five consecutive trading day period (the "measurement period") in which the trading price per $1,000 principal amount of 2025 Notes for each trading day of the measurement period was less than 98% of the product of the last reported sale price of our Common Stock and the conversion rate on each such trading day; (3) if we call any or all of the 2025 Notes for redemption, at any time prior to the close of business on the scheduled trading day immediately preceding the redemption date; or (4) upon the occurrence of specified corporate events set forth in the indenture governing the 2025 Notes. On or after November 15, 2024, until the close of business on the business day immediately preceding the maturity date, holders of the 2025 Notes may convert their notes at any time, regardless of the foregoing conditions. Upon conversion, we will pay or deliver, as the case may be, cash, shares of our Common Stock, or a combination of cash and shares of our Common Stock, at our election.

The initial and current conversion rate for the 2025 Notes is 236.7424 shares of Common Stock per $1,000 principal amount of 2025 Notes (equivalent to a conversion price of approximately $4.22 per share of Common Stock). The conversion rate for the 2025 Notes is subject to adjustment in certain events, but will not be adjusted for any accrued and unpaid interest. In addition, following certain corporate events that occur prior to the maturity date of the 2025 Notes or if we deliver a notice of redemption, in certain circumstances the indenture governing the 2025 Notes requires an increase in the conversion rate of the

2025 Notes for a holder who elects to convert its notes in connection with such a corporate event or notice of redemption, as the case may be.

We may not redeem the 2025 Notes prior to February 15, 2022. We may redeem for cash any or all of the 2025 Notes, at our option, on or after February 15, 2022, if the last reported sale price of our Common Stock has been at least 130% of the then current conversion price for the notes for at least20 trading days (whether or not consecutive) during any 30 consecutive trading day period (including the last trading day of such period) ending on, and including, the trading day immediately preceding the date on which we provide a notice of redemption at a redemption price equal to 100% of the principal amount of the notes to be redeemed, plus accrued and unpaid interest to, but excluding, the redemption date. No sinking fund is provided for the 2025 Notes.

If we undergo a fundamental change, as defined in the indenture governing the 2025 Notes, prior to the maturity date of the 2025 Notes, holders may require us to repurchase for cash all or any portion of their notes at a repurchase price equal to 100% of the principal amount of the notes to be repurchased, plus accrued and unpaid interest to, but excluding, the fundamental change repurchase date. The 2025 Notes are our senior unsecured obligations and rank senior in right of payment to any of our indebtedness that is expressly subordinated in right of payment to the 2025 Notes; equal in right of payment to any of our existing and future liabilities that are not so subordinated; effectively junior in right of payment to any of our secured indebtedness to the extent of the value of the assets securing such indebtedness; and structurally junior to all indebtedness and other liabilities (including trade payables) of our current or future subsidiaries.

In conjunction with the issuance of the 2025 Notes, we agreed to loan up to30,000,000 shares of our Common Stock to affiliates of the underwriter in order to assist investors in the 2025 Notes to hedge their position. As of June 30, 2020, a total of 29,250,000 shares were issued under the share lending arrangement. We will not receive any of the proceeds from the sale of the borrowed shares, but we received a one-time nominal fee of $0.3 million for the newly issued shares. Shares of our Common Stock outstanding under the share lending arrangement are excluded from the calculation of basic and diluted earnings per share. See Note 3.

As required by ASC 470-20, “Debt with Conversion and Other Options,” we calculated the equity component of the 2025 Notes, taking into account both the fair value of the conversion option and the fair value of the share lending arrangement. The equity component was valued at $52.6 million at issue date and this amount was recorded as Additional paid-in capital, which resulted in a discount on the 2025 Notes. The discount is being amortized to Interest expense over the term of the 2025 Notes, which results in an effective interest rate on the 2025 Notes of 11.2%.

The following table sets forth information related to the 2025 Notes which is included in our Condensed Consolidated Balance Sheet as of June 30, 2020:

(In thousands)	2025 Senior Notes	Discount	Debt Issuance Cost	Total
Balance at December 31, 2019	$ 200,000	$ (46,774)	$ (5,086)	$ 148,140
Amortization of debt discount and debt issuance costs	—	3,497	381	3,878
Balance at June 30, 2020	$ 200,000	$ (43,277)	$ (4,705)	$ 152,018

On November 8, 2018, we entered into a credit agreement with an affiliate of Dr. Frost, pursuant to which the lender committed to provide us with an unsecured line of credit in the aggregate principal amount of $60 million. The credit agreement was terminated on or around February 20, 2019 and we repaid the $28.8 million outstanding thereunder from the proceeds of the 2025 Notes offering.

In February 2018, we issued a series of5% Convertible Promissory Notes (the “2023 Convertible Notes”) in the aggregate principal amount of $55.0 million. The 2023 Convertible Notes mature five years following the date of issuance. Each holder of a 2023 Convertible Note has the option, from time to time, to convert all or any portion of the outstanding principal balance of such 2023 Convertible Note, together with accrued and unpaid interest thereon, into shares of our Common Stock at a conversion price of $5.00 per share. We may redeem all or any part of the then issued and outstanding 2023 Convertible Notes, together with accrued and unpaid interest thereon, pro rata among the holders, upon no fewer than 30 days, and no more than 60 days, notice to the holders. The 2023 Convertible Notes contain customary events of default and representations and warranties of OPKO.

Purchasers of the 2023 Convertible Notes included an affiliate of Dr. Phillip Frost, M.D., our Chairman and Chief Executive Officer, and Dr. Jane H. Hsiao, Ph.D., MBA, our Vice-Chairman and Chief Technical Officer.

In January 2013, we entered into note purchase agreements with respect to the issuance and sale of our 3.0% Senior Notes due 2033 (the "2033 Senior Notes") in a private placement exempt from registration under the Securities Act. We issued the 2033 Senior Notes on January 30, 2013. The 2033 Senior Notes, which totaled $175.0 million in original principal amount, bear interest at the rate of 3.0% per year, payable semiannually on February 1 and August 1 of each year. The 2033 Senior Notes mature on February 1, 2033, unless earlier repurchased, redeemed or converted. Upon a fundamental change, as defined in the indenture governing the 2033 Senior Notes, subject to certain exceptions, the holders may require us to repurchase all or any portion of their 2033 Senior Notes for cash at a repurchase price equal to 100% of the principal amount of the 2033 Senior Notes being repurchased, plus any accrued and unpaid interest to, but not including, the related fundamental change repurchase date.

From 2013 to 2016, holders of the 2033 Senior Notes converted $143.2 million in aggregate principal amount into an aggregate of 21,539,873 shares of Common Stock. On February 1, 2019, approximately $28.8 million aggregate principal amount of 2033 Senior Notes were tendered by holders pursuant to such holders' option to require us to repurchase the 2033 Senior Notes as set forth in the indenture, following which repurchase only $3.0 million aggregate principal amount of the 2033 Senior Notes remained outstanding. Holders of the remaining $3.0 million principal amount of the 2033 Senior Notes may require us to repurchase such notes for 100% of their principal amount, plus accrued and unpaid interest, on February 1, 2023, on February 1, 2028, or following the occurrence of a fundamental change as described above.

The terms of the 2033 Senior Notes, include, among others: (i) rights to convert the notes into shares of our Common Stock, including upon a fundamental change; and (ii) a coupon make-whole payment in the event of a conversion by the holders of the 2033 Senior Notes on or after February 1, 2017 but prior to February 1, 2019. We determined that these specific terms were embedded derivatives. Embedded derivatives are required to be separated from the host contract, the 2033 Senior Notes, and carried at fair value when: (a) the embedded derivative possesses economic characteristics that are not clearly and closely related to the economic characteristics of the host contract; and (b) a separate, stand-alone instrument with the same terms would qualify as a derivative instrument. We concluded that the embedded derivatives within the 2033 Senior Notes met these criteria and, as such, were valued separate and apart from the 2033 Senior Notes and recorded at fair value each reporting period.

For accounting and financial reporting purposes, we combined these embedded derivatives and valued them together as one unit of accounting. In 2017, certain terms of the embedded derivatives expired pursuant to the original agreement and the embedded derivatives no longer met the criteria to be separated from the host contract and, as a result, the embedded derivatives were no longer required to be valued separate and apart from the 2033 Senior Notes and were reclassified to additional paid in capital.

In November 2015, BioReference and certain of its subsidiaries entered into a credit agreement with JPMorgan Chase Bank, N.A. ("CB"), as lender and administrative agent, as amended (the "Credit Agreement"). The Credit Agreement provides for a $75.0 million secured revolving credit facility and includes a $20.0 million sub-facility for swingline loans and a $20.0 million sub-facility for the issuance of letters of credit. The Credit Agreement matures on November 5, 2021 and is guaranteed by all of BioReference's domestic subsidiaries. The Credit Agreement is also secured by substantially all assets of BioReference and its domestic subsidiaries, as well as a non-recourse pledge by us of our equity interest in BioReference. Availability under the Credit Agreement is based on a borrowing base composed of eligible accounts receivables of BioReference and certain of its subsidiaries, as specified therein. As of June 30, 2020, $15.3 million remained available for borrowing under the Credit Agreement. Principal under the Credit Agreement is due upon maturity on November 5, 2021.

At BioReference's option, borrowings under the Credit Agreement (other than swingline loans) will bear interest at (i) the CB floating rate (defined as the higher of (a) the prime rate and (b) the LIBOR rate (adjusted for statutory reserve requirements for Eurocurrency liabilities) for an interest period of one month plus 2.50%) plus an applicable margin of 0.35% for the first 12 months and 0.50% thereafter or (ii) the LIBOR rate (adjusted for statutory reserve requirements for Eurocurrency liabilities) plus an applicable margin of 1.35% for the first 12 months and 1.50% thereafter. Swingline loans will bear interest at the CB floating rate plus the applicable margin. The Credit Agreement also calls for other customary fees and charges, including an unused commitment fee of 0.25% of the lending commitments.

On February 25, 2020, BioReference and certain of its subsidiaries entered into Amendment No. 11 to the Credit Agreement, which amended the Credit Agreement to provide that the fixed charge coverage ratio requirement set forth in the Credit Agreement would not be tested for the quarter ended December 31, 2019, with respect to availability calculated on January 29, 2020 and January 30, 2020, subject, in the case of testing for the quarter ended December 31, 2019, to (i) there having been no event of default occurring and (ii) availability under the revolving facility exceeding 10% of the total revolving commitment, for at least 30 consecutive days for the period ended December 31, 2019, excluding December 18, 2019. The other terms of the Credit Agreement remain unchanged.

As of June 30, 2020, $51.5 million outstanding under the Credit Agreement was included within Other long-term liabilities.

The Credit Agreement contains customary covenants and restrictions, including, without limitation, covenants that require BioReference and its subsidiaries to maintain a minimum fixed charge coverage ratio if availability under the new credit facility falls below a specified amount and to comply with laws and restrictions on the ability of BioReference and its subsidiaries to incur additional indebtedness or to pay dividends and make certain other distributions to the Company, subject to certain exceptions as specified therein. Failure to comply with these covenants would constitute an event of default under the Credit Agreement, notwithstanding the ability of BioReference to meet its debt service obligations. The Credit Agreement also includes various customary remedies for the lenders following an event of default, including the acceleration of repayment of outstanding amounts under the Credit Agreement and execution upon the collateral securing obligations under the Credit Agreement. Substantially all the assets of BioReference and its subsidiaries are restricted from sale, transfer, lease, disposal or distributions to the Company, subject to certain exceptions. As of June 30, 2020, BioReference and its subsidiaries had net assets of approximately $913.2 million, which included goodwill of $434.8 million and intangible assets of $345.9 million.

In addition to the Credit Agreement with CB, we had line of credit agreements witheleven other financial institutions as of both June 30, 2020 and December 31, 2019 in the U.S., Chile and Spain. These lines of credit are used primarily as a source of working capital for inventory purchases.

The following table summarizes the amounts outstanding under the BioReference, Chilean and Spanish lines of credit:

(Dollars in thousands)			Balance Outstanding	
Lender	Interest rate on borrowings at June 30, 2020	Credit line capacity	June 30, 2020	December 31, 2019
JPMorgan Chase	3.67%	$ 75,000	$ 51,489	$ 44,750
Itau Bank	5.50%	1,810	530	472
Bank of Chile	6.60%	3,800	865	851
BICE Bank	5.50%	2,500	1,019	1,429
BBVA Bank	5.50%	3,250	—	11
Security Bank	5.50%	—	—	588
Estado Bank	5.50%	3,500	1,974	1,365
Santander Bank	5.50%	4,500	2,648	1,943
Scotiabank	5.00%	1,800	1,095	668
Corpbanca	5.00%	3,917	3,917	—
Banco De Sabadell	1.30%	337	—	—
Banco Bilbao Vizcaya	1.70%	337	—	—
Banco Santander	1.82%	561	—	—
Total		$ 101,312	$ 63,537	$ 52,077

At June 30, 2020 and December 31, 2019, the weighted average interest rate on our lines of credit was approximately4.2% and 4.0%, respectively.

At June 30, 2020 and December 31, 2019, we had notes payable and other debt (excluding the 2033 Senior Notes, the 2023 Convertible Notes, the 2025 Notes, the Credit Agreement and amounts outstanding under lines of credit described above) as follows:

(In thousands)	June 30, 2020	December 31, 2019
Current portion of notes payable	$ 2,415	$ 2,494
Other long-term liabilities	4,936	4,723
Total	$ 7,351	$ 7,217

The notes and other debt mature at various dates ranging from 2020 through 2024, bearing variable interest rates from0.7% up to 3.8%. The weighted average interest rate on the notes and other debt was 2.6% and 2.7% on June 30, 2020 and December 31, 2019. The notes are partially secured by our office space in Barcelona.

NOTE 7 ACCUMULATED OTHER COMPREHENSIVE LOSS

For the six months ended June 30, 2020, changes in Accumulated other comprehensive loss, net of tax, were as follows:

(In thousands)	Foreign currency translation
Balance at December 31, 2019	$ (22,070)
Other comprehensive loss	(3,682)
Balance at June 30, 2020	$ (25,752)

NOTE 8 FAIR VALUE MEASUREMENTS

We record fair values at an exit price, representing the amount that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants. As such, fair value is a market-based measurement determined based on assumptions that market participants would use in pricing an asset or liability. We utilize a three-tier fair value hierarchy, which prioritizes the inputs used in measuring fair value. These tiers are: Level 1, defined as observable inputs such as quoted prices in active markets; Level 2, defined as inputs other than quoted prices in active markets that are either directly or indirectly observable; and Level 3, defined as unobservable inputs in which little or no market data exists, therefore requiring an entity to develop its own assumptions.

As of June 30, 2020, we had equity securities (refer to Note 5), forward foreign currency exchange contracts for inventory purchases (refer to Note 9) and contingent consideration related to the acquisitions of CURNA, OPKO Diagnostics and OPKO Renal that are required to be measured at fair value on a recurring basis. In addition, in connection with our investment and our consulting agreement with BioCardia, we record the related BioCardia options at fair value as well as the warrants from COCP, InCellDx, Xenetic and Phio.

Our financial assets and liabilities measured at fair value on a recurring basis are as follows:

	Fair value measurements as of June 30, 2020			
(In thousands)	Quoted prices in active markets for identical assets (Level 1)	Significant other observable inputs (Level 2)	Significant unobservable inputs (Level 3)	Total
Assets:				
Equity securities	$ 24,777	$ —	$ —	$ 24,777
Common stock options/warrants	—	51	—	51
Forward contracts	—	215	—	215
Total assets	$ 24,777	$ 266	$ —	$ 25,043
Liabilities:				
Contingent consideration	—	—	9,934	9,934
Total liabilities	$ —	$ —	$ 9,934	$ 9,934

	Fair value measurements as of December 31, 2019			
(In thousands)	Quoted prices in active markets for identical assets (Level 1)	Significant other observable inputs (Level 2)	Significant unobservable inputs (Level 3)	Total
Assets:				
Equity securities	$ 18,870	$ —	$ —	$ 18,870
Common stock options/warrants	—	120	—	120
Forward contracts	—	133	—	133
Total assets	$ 18,870	$ 253	$ —	$ 19,123
Liabilities:				
Contingent consideration	—	—	9,683	9,683
Total liabilities	$ —	$ —	$ 9,683	$ 9,683

There have been no transfers between Level 1 and Level 2 and no transfers to or from Level 3 of the fair value hierarchy.

As of June 30, 2020 and December 31, 2019, the carrying value of our other financial instrument assets approximates their fair value due to their short-term nature or variable rate of interest.

The following table reconciles the beginning and ending balances of our Level 3 assets and liabilities as of June 30, 2020:

(In thousands)	June 30, 2020 Contingent consideration
Balance at December 31, 2019	$ 9,683
Change in fair value:	
Included in results of operations	251
Balance at June 30, 2020	$ 9,934

The estimated fair values of our financial instruments have been determined by using available market information and what we believe to be appropriate valuation methodologies. We use the following methods and assumptions in estimating fair value:

Contingent consideration – We estimate the fair value of the contingent consideration utilizing a discounted cash flow model for the expected payments based on estimated timing and expected revenues. We use several discount rates depending on each type of contingent consideration related to OPKO Diagnostics, CURNA and OPKO Renal transactions. As of June 30, 2020, of the $9.9 million of contingent consideration, $2.4 million was recorded in Accrued expenses and $7.6 million was recorded in Other long-term liabilities. As of December 31, 2019, of the $9.7 million of contingent consideration, $2.4 million was recorded in Accrued expenses and $7.3 million was recorded in Other long-term liabilities.

NOTE 9 DERIVATIVE CONTRACTS

The following table summarizes the fair values and the presentation of our derivative assets (liabilities) in the Condensed Consolidated Balance Sheets:

(In thousands)	Balance Sheet Component	June 30, 2020	December 31, 2019
Derivative financial instruments:			
Common Stock options/warrants	Investments, net	$ 51	$ 120
Forward contracts	Unrealized gains on forward contracts are recorded in Other current assets and prepaid expenses. Unrealized (losses) on forward contracts are recorded in Accrued expenses.	$ 215	$ 133

We enter into foreign currency forward exchange contracts in an effort to mitigate the effects of exchange rate differences arising from inventory purchases on letters of credit. Under these forward contracts, for any rate above or below the fixed rate, we receive or pay the difference between the spot rate and the fixed rate for the given amount at the settlement date.

To qualify the derivative instrument as a hedge, we are required to meet strict hedge effectiveness and contemporaneous documentation requirements at the initiation of the hedge and assess the hedge effectiveness on an ongoing basis over the life of the hedge. At June 30, 2020 and December 31, 2019, our derivative financial instruments did not meet the documentation requirements to be designated as hedges. Accordingly, we recognize the changes in Fair value of derivative instruments, net in our Condensed Consolidated Statement of Operations. The following table summarizes the losses and gains recorded for the three and six months ended June 30, 2020 and 2019:

	Three months ended June 30,		Six months ended June 30,	
(In thousands)	2020	2019	2020	2019
Derivative gain (loss):				
Common Stock options/warrants	$ (7)	$ (392)	$ (69)	$ (24)
Forward contracts	(6)	4	677	51
Total	$ (13)	$ (388)	$ 608	$ 27

NOTE 10 RELATED PARTY TRANSACTIONS

On February 25, 2020, we entered into a credit agreement with an affiliate of Dr. Frost, pursuant to which the lender committed to provide us with an unsecured line of credit in the amount of $100 million. Borrowings under the line of credit will bear interest at a rate of 11% per annum and may be repaid and reborrowed at any time. The credit agreement includes various customary remedies for the lender following an event of default, including the acceleration of repayment of outstanding amounts under line of credit. The line of credit matures on February 25, 2025. The line of credit also calls for a commitment fee equal to 0.25% per annum of the unused portion of the line. As of June 30, 2020, no funds were borrowed under the line of credit.

On October 29, 2019, we issued50 million shares of our Common Stock at a price of $1.50 per share in an underwritten public offering (the “Offering”), resulting in net proceeds to the Company of approximately $70 million, after deducting underwriting commissions and offering expenses. In November 2019, pursuant to an option the Company granted the underwriters, we issued an additional 4,227,749 shares at the public offering price, less underwriting discounts and commissions, resulting in net proceeds to the Company of approximately $6 million. Drs. Frost and Hsiao and Mr. Steven Rubin, members of OPKO’s senior management purchased an aggregate of2,415,000 shares of Common Stock in the Offering.

On March 1, 2019, OPKO Pharmaceuticals, LLC entered into an assignment agreement with Xenetic Biosciences, Inc., as amended from time to time (the “Assignment Agreement”), pursuant to which Xenetic acquired all of OPKO Pharmaceuticals’ right, title and interest in and to that certain Intellectual Property License Agreement (the “IP License Agreement”), entered into between The Scripps Research Institute and OPKO Pharmaceuticals, regarding certain patents for novel CAR T platform technology and through which the Scripps Research Institute granted an exclusive royalty-bearing license in exchange for royalties, subject to the terms of the IP License Agreement.

Under the Assignment Agreement and the IP License Agreement, Xenetic issued to OPKO Pharmaceuticals164,062 shares of Xenetic common stock (the “OPKO Transaction Shares”). In connection with the Assignment Agreement, OPKO Pharmaceuticals entered into a voting agreement pursuant to which OPKO Pharmaceuticals agreed, among other things, to vote

its shares in Xenetic in favor of the transactions contemplated by the Assignment Agreement, and a lock-up agreement with Xenetic which restricts OPKO Pharmaceuticals' sale or transfer of any of the OPKO Transaction Shares as provided therein and as otherwise required by law. The Assignment Agreement and the obligations thereunder took effect on July 19, 2019, after Xenetic satisfied certain closing conditions, including obtaining stockholder approval and securing certain financing.

The Company owns approximately 9% of Pharmsynthez and Pharmsynthez is Xenetic's largest and controlling stockholder. Dr. Richard Lerner, a director of the Company, is a co-inventor of Xenetic's technology and received 31,240 shares of Xenetic upon the closing of the Xenetic transactions described above. Adam Logal, our Senior Vice President and Chief Financial Officer, is a director of Xenetic.

In March 2019, we paid the $125,000 filing fee to the Federal Trade Commission (the "FTC") in connection with filings made by us and Dr. Jane Hsiao, our Vice Chairman and Chief Technical Officer, under the Hart-Scott-Rodino Antitrust Improvements Act of 1976 ("HSR Act") relating to her purchases of Common Stock.

In February 2019, Dr. Phillip Frost, our Chairman and Chief Executive Officer, paid a filing fee of $280,000 to the FTC under the HSR Act in connection with filings made by us and Dr. Frost, relating to his purchases of Common Stock. We reimbursed Dr. Frost for the HSR filing fee.

On November 8, 2018, we entered into a credit agreement with an affiliate of Dr. Frost, pursuant to which the lender committed to provide us with an unsecured line of credit in the amount of $60 million. Borrowings under the line of credit bore interest at a rate of 10% per annum and could have been repaid and reborrowed at any time. The credit agreement included various customary remedies for the lender following an event of default, including the acceleration of repayment of outstanding amounts under line of credit. The line of credit would have matured on November 8, 2023. We repaid approximately $28.8 million that was borrowed in 2019 and terminated the line of credit on or around February 20, 2019.

In February 2018, we issued the 2023 Convertible Notes in the aggregate principal amount of $55.0 million. Refer to Note 6. Purchasers of the 2023 Convertible Notes included Dr. Hsiao and an affiliate of Dr. Frost.

We hold investments in Zebra (ownership 29%), Neovasc (2%), ChromaDex Corporation (0.1%), MabVax (1%), COCP (5%), NIMS (1%), Eloxx (3%), and BioCardia (2%). These investments were considered related party transactions as a result of our executive management's ownership interests and/or board representation in these entities. See further discussion of our investments in Note 5.

In February 2018, we invested an additional $1.0 million in COCP for a convertible note, which was converted into 538,544 shares of its common stock in May 2018. In April 2017, we invested an additional $1.0 million in COCP for 138,889 shares of its common stock.

In November 2017, we invested an additional $3.0 million in Neovasc for 20,547 shares of its common stock, 20,547 Series A warrants, 20,547 Series B warrants and 8,221 Series C warrants, after adjusting for a 1-for-100 reverse stock split in 2018. In April 2018, we exercised the Series B warrants in a cashless exercise and received 10,690 shares of Neovasc common stock. In the first quarter of 2019, we exercised the Series C warrants for $1.2 million and exchanged the Series A warrants and received a total of 22,660 additional shares of Neovasc common stock.

In November 2016, we entered into a Pledge Agreement with the Museum of Science, Inc. and the Museum of Science Endowment Fund, Inc. pursuant to which we agreed to contribute an aggregate of $1.0 million over a four-year period for constructing, equipping and the general operation of the Frost Science Museum. Dr. Frost and Mr. Richard Pfenniger serve on the Board of Trustees of the Frost Science Museum and Mr. Pfenniger is the Vice Chairman of the Board of Trustees.

We lease office space from Frost Real Estate Holdings, LLC ("Frost Holdings") in Miami, Florida, where our principal executive offices are located. Effective August 1, 2019, we entered into an amendment to our lease agreement with Frost Holdings. The lease, as amended, is for approximately 29,500 square feet of space. The lease provides for payments of approximately $89 thousand per month in the first year increasing annually to $101 thousand per month in the fifth year, plus applicable sales tax. The rent is inclusive of operating expenses, property taxes and parking.

BioReference purchases and uses certain products acquired from InCellDx, a company in which we hold a 29% minority interest.

We reimburse Dr. Frost for Company-related use by Dr. Frost and our other executives of an airplane owned by a company that is beneficially owned by Dr. Frost. We reimburse Dr. Frost for out-of-pocket operating costs for the use of the airplane by Dr. Frost or Company executives for Company-related business. We do not reimburse Dr. Frost for personal use of the airplane by Dr. Frost or any other executive. For the three and six months ended June 30, 2020, we reimbursed approximately $0 thousand and $94 thousand, respectively, for Company-related travel by Dr. Frost and other OPKO

executives. For the three and six months ended June 30, 2019, we reimbursed approximately $122 thousand and $160 thousand, respectively, for Company-related travel by Dr. Frost and other OPKO executives.

NOTE 11 COMMITMENTS AND CONTINGENCIES

In connection with our acquisitions of CURNA, OPKO Diagnostics and OPKO Renal, we agreed to pay future consideration to the sellers upon the achievement of certain events. As a result, as of June 30, 2020, we recorded $9.9 million as contingent consideration, with $2.4 million recorded within Accrued expenses and $7.6 million recorded within Other long-term liabilities in the accompanying Condensed Consolidated Balance Sheets. Refer to Note 4.

On June 3, 2019, BioReference reported that Retrieval-Masters Creditors Bureau, Inc. d/b/a American Medical Collection Agency ("AMCA"), had notified BioReference about a data security incident involving AMCA (the "AMCA Incident"). AMCA informed BioReference that an unauthorized user had access to AMCA's system between August 1, 2018 and March 30, 2019. AMCA advised that AMCA's affected system may have included patient name, date of birth, address, phone, date of service, provider, and balance information, as well as credit card information, bank account information (but no passwords or security questions) and email addresses that were provided by the consumer to AMCA. AMCA advised BioReference that no Social Security Numbers were compromised, and BioReference provided no laboratory results or diagnostic information to AMCA. BioReference notified patients and provided notice to the Office of Civil Rights of the AMCA Incident. BioReference had been named in at least two class action lawsuits against AMCA and other defendants in connection with the AMCA Incident. In April 2020, the class action lawsuits against BioReference were dismissed without prejudice. The Office of Inspector General and Office for Civil Rights ("OCR") of the Department of Health and Human Services, as well as the attorney generals' offices from certain states have contacted BioReference to request additional information relating to the AMCA Incident. It is not possible at this time to estimate the amount of loss or range of loss, if any, that might result from adverse judgments, settlements, fines, penalties, or other resolution of these proceedings and investigations based on the stage of these proceedings and investigations, the absence of specific allegations as to alleged damages, the uncertainty as to whether the class action lawsuits or other lawsuits will be filed or refiled, and/or the lack of resolution of significant factual and legal issues.

As previously disclosed, on September 7, 2018, the Securities and Exchange Commission (the "SEC") filed a lawsuit in the Southern District of New York (the "SEC Complaint") against a number of individuals and entities (the "Defendants"), including the Company and its CEO and Chairman, Dr. Phillip Frost. The SEC alleged, among other things, that the Company (i) aided and abetted an illegal "pump and dump" scheme perpetrated by a number of the Defendants, and (ii) failed to file required Schedules 13D or 13G with the SEC. On December 27, 2018, the Company announced that the Company and Dr. Frost entered into settlement agreements with the SEC, which upon approval of the court would resolve the SEC Complaint against each of them. The settlement was approved by the court in January 2019. Pursuant to the settlement, and without admitting or denying any of the allegations of the Complaint, the Company is enjoined from violating Section 13(d) of the Exchange Act and paid a $100,000 penalty. Liability under Section 13(d) can be established without any showing of wrongful intent or negligence.

Following the SEC's announcement of the SEC Complaint, we were named in several class action lawsuits, more than a dozen derivative suits, and other litigation relating to the allegations in the SEC Complaint among other matters. On June 26, 2020, The Amitim Funds, the lead plaintiff in the class action lawsuits filed a Stipulation of Settlement in the Southern District of Florida of behalf of itself and the remainder of the class, which, if approved, will provide for the settlement of and release of the class action claims against the Company and Dr. Frost for $16.5 million. We reached agreement with our insurance carriers with respect to claims made in the class action and derivative lawsuits and we expect insurance coverage for a significant portion of the settlement amounts. The settlement remains subject to certain terms and conditions including court approval. The Company is also in advanced negotiations to settle the derivative suits.

In April 2017, the Civil Division of the United States Attorney's Office for the Southern District of New York (the "SDNY") informed BioReference that it believes that, from 2008 to 2012, BioReference had, in violation of the False Claims Act, improperly billed Medicare and TRICARE (both are federal government healthcare programs) for clinical laboratory services provided to hospital inpatient beneficiaries at certain hospitals. In April 2019, the SDNY also informed BioReference that it believes that BioReference provided physicians subsidies for electronic health record systems prior to 2012 that violated regulations adopted by HHS in 2006 which allowed laboratories to provide these donations under certain conditions. BioReference and the SDNY are in negotiations to resolve the matter.

On October 11, 2019, GeneDx received a letter from the Centers for Medicare and Medicaid Services ("CMS"), notifying GeneDx of CMS' determination to suspend Medicare payments to GeneDx, which suspension became effective on September 27, 2019 (the "CMS Letter"). The CMS Letter specifically stated that the foregoing suspension may last for up to

180 days from the effective date and may be extended under certain circumstances. CMS advised that it suspended payments due to possible overpayments to GeneDx in connection with reimbursement claims for genetic testing services based on a diagnosis of family history of cancer, which testing CMS has alleged is not covered by Medicare under the applicable provisions of the Social Security Act on the basis that such testing is not reasonable and necessary for the diagnosis or treatment of illness or injury. On or around February 3, 2020, we were notified that CMS was lifting the payment suspension. CMS noted, however, that the decision to lift the payment suspension should not be construed as a positive determination regarding GeneDx's Medicare billing. There can be no assurance that CMS and other governmental payor programs will not seek to recoup payments from us, suspend reimbursement or seek overpayment damages from GeneDx.

From time to time, we may receive inquiries, document requests, Civil Investigative Demands ("CIDs") or subpoenas from the Department of Justice, OCR, CMS, various payors and fiscal intermediaries, and other state and federal regulators regarding investigations, audits and reviews. In addition to the matters discussed in this note, we are currently responding to CIDs, subpoenas, payor audits, and document requests for various matters relating to our laboratory operations. Some pending or threatened proceedings against us may involve potentially substantial amounts as well as the possibility of civil, criminal, or administrative fines, penalties, or other sanctions, which could be material. Settlements of suits involving the types of issues that we routinely confront may require monetary payments as well as corporate integrity agreements. Additionally, qui tam or "whistleblower" actions initiated under the civil False Claims Act may be pending but placed under seal by the court to comply with the False Claims Act's requirements for filing such suits. Also, from time to time, we may detect issues of non-compliance with federal healthcare laws pertaining to claims submission and reimbursement practices and/or financial relationships with physicians, among other things. We may avail ourselves of various mechanisms to address these issues, including participation in voluntary disclosure protocols. Participating in voluntary disclosure protocols can have the potential for significant settlement obligations or even enforcement action. The Company generally has cooperated, and intends to continue to cooperate, with appropriate regulatory authorities as and when investigations, audits and inquiries arise.

We are a party to other litigation in the ordinary course of business. While we cannot predict the ultimate outcome of legal matters, we accrue a liability for legal contingencies when we believe that it is both probable that a liability has been incurred and that we can reasonably estimate the amount of the loss. It's reasonably possible the ultimate liability could exceed amounts currently estimated and we review established accruals and adjust them to reflect ongoing negotiations, settlements, rulings, advice of legal counsel and other relevant information. To the extent new information is obtained and our views on the probable outcomes of claims, suits, assessments, investigations or legal proceedings change, changes in our accrued liabilities would be recorded in the period in which such determination is made. Because of the high degree of judgment involved in establishing loss estimates, the ultimate outcome of such matters will differ from our estimates and such differences may be material to our business, financial condition, results of operations, and cash flows.

At June 30, 2020, we were committed to make future purchases for inventory and other items in 2020 that occur in the ordinary course of business under various purchase arrangements with fixed purchase provisions aggregating approximately $154.2 million.

NOTE 12 REVENUE RECOGNITION

We generate revenues from services, products and intellectual property as follows:

Revenue from services

Revenue for laboratory services is recognized at the time test results are reported, which approximates when services are provided and the performance obligations are satisfied. Services are provided to patients covered by various third-party payor programs including various managed care organizations, as well as the Medicare and Medicaid programs. Billings for services are included in revenue net of allowances for contractual discounts, allowances for differences between the amounts billed and estimated program payment amounts, and implicit price concessions provided to uninsured patients which are all elements of variable consideration.

The following are descriptions of our payors for laboratory services:

Healthcare Insurers. Reimbursements from healthcare insurers are based on negotiated fee-for-service schedules. Revenues consist of amounts billed, net of contractual allowances for differences between amounts billed and the estimated consideration we expect to receive from such payors, which considers historical denial and collection experience and the terms of our contractual arrangements. Adjustments to the allowances, based on actual receipts from the third-party payors, are recorded upon settlement.

Government Payors. Reimbursements from government payors are based on fee-for-service schedules set by governmental authorities, including traditional Medicare and Medicaid. Revenues consist of amounts billed, net of contractual

allowances for differences between amounts billed and the estimated consideration we expect to receive from such payors, which considers historical denial and collection experience and the terms of our contractual arrangements. Adjustments to the allowances, based on actual receipts from the government payors, are recorded upon settlement.

Client Payors. Client payors include physicians, hospitals, employers, and other institutions for which services are performed on a wholesale basis, and are billed and recognized as revenue based on negotiated fee schedules.

Patients. Uninsured patients are billed based on established patient fee schedules or fees negotiated with physicians on behalf of their patients. Insured patients (including amounts for coinsurance and deductible responsibilities) are billed based on fees negotiated with healthcare insurers. Collection of billings from patients is subject to credit risk and ability of the patients to pay. Revenues consist of amounts billed net of discounts provided to uninsured patients in accordance with our policies and implicit price concessions. Implicit price concessions represent differences between amounts billed and the estimated consideration that we expect to receive from patients, which considers historical collection experience and other factors including current market conditions. Adjustments to the estimated allowances, based on actual receipts from the patients, are recorded upon settlement.

The complexities and ambiguities of billing, reimbursement regulations and claims processing, as well as considerations unique to Medicare and Medicaid programs, require us to estimate the potential for retroactive adjustments as an element of variable consideration in the recognition of revenue in the period the related services are rendered. Actual amounts are adjusted in the period those adjustments become known. For the six months ended June 30, 2020 and 2019, revenue increases (reductions) due to changes in estimates of implicit price concessions for performance obligations satisfied in prior periods of $0.2 million and $(14.3) million, respectively, were recognized.

Third-party payors, including government programs, may decide to deny payment or recoup payments for testing they contend were improperly billed or not medically necessary, against their coverage determinations, or for which they believe they have otherwise overpaid (including as a result of their own error), and we may be required to refund payments already received. Our revenues may be subject to retroactive adjustment as a result of these factors among others, including without limitation, differing interpretations of billing and coding guidance and changes by government agencies and payors in interpretations, requirements, and “conditions of participation” in various programs. We have processed requests for recoupment from third-party payors in the ordinary course of our business, and it is likely that we will continue to do so in the future. If a third-party payer denies payment for testing or recoups money from us in a later period, reimbursement for our testing could decline.

As an integral part of our billing compliance program, we periodically assess our billing and coding practices, respond to payor audits on a routine basis, and investigate reported failures or suspected failures to comply with federal and state healthcare reimbursement requirements, as well as overpayment claims which may arise from time to time without fault on the part of the Company. We may have an obligation to reimburse Medicare, Medicaid, and third-party payors for overpayments regardless of fault. We have periodically identified and reported overpayments, reimbursed payors for overpayments and taken appropriate corrective action.

Settlements with third-party payors for retroactive adjustments due to audits, reviews or investigations are also considered variable consideration and are included in the determination of the estimated transaction price for providing services. These settlements are estimated based on the terms of the payment agreement with the payor, correspondence from the payor and our historical settlement activity, including an assessment of the probability a significant reversal of cumulative revenue recognized will occur when the uncertainty is subsequently resolved. Estimated settlements are adjusted in future periods as adjustments become known (that is, new information becomes available), or as years are settled or are no longer subject to such audits, reviews, and investigations. As of June 30, 2020 and December 31, 2019, we had liabilities of approximately $21.4 million and $27.3 million, respectively, within Accrued expenses and Other long-term liabilities related to reimbursements for payor overpayments.

The composition of Revenue from services by payor for the six months ended June 30, 2020 and 2019 was as follows:

(In thousands)	Three months ended June 30, 2020	Three months ended June 30, 2019	Six months ended June 30, 2020	Six months ended June 30, 2019
Healthcare insurers	$ 84,082	$ 106,278	$ 183,232	$ 211,207
Government payers	15,886	28,634	42,784	59,037
Client payers	141,090	38,101	180,191	76,559
Patients	9,913	5,445	15,604	10,546
Total	$ 250,971	$ 178,458	$ 421,811	$ 357,349

Client payers include cities and states for which BioReference provides COVID-19 testing services.

Revenue from products

We recognize revenue from product sales when a customer obtains control of promised goods or services. The amount of revenue that is recorded reflects the consideration that we expect to receive in exchange for those goods or services. Our estimates for sales returns and allowances are based upon the historical patterns of product returns and allowances taken, matched against the sales from which they originated, and our evaluation of specific factors that may increase or decrease the risk of product returns. Product revenues are recorded net of estimated rebates, chargebacks, discounts, co-pay assistance and other deductions (collectively, "Sales Deductions") as well as estimated product returns which are all elements of variable consideration. Allowances are recorded as a reduction of revenue at the time product revenues are recognized. The actual amounts of consideration ultimately received may differ from our estimates. If actual results in the future vary from our estimates, we will adjust these estimates, which would affect Revenue from products in the period such variances become known.

Rayaldee is distributed in the U.S. principally through the retail pharmacy channel, which initiates with the largest wholesalers in the U.S. (collectively, "*Rayaldee* Customers"). In addition to distribution agreements with *Rayaldee* Customers, we have entered into arrangements with many healthcare providers and payors that provide for government-mandated and/or privately-negotiated rebates, chargebacks and discounts with respect to the purchase of *Rayaldee.*

We recognize revenue for shipments of *Rayaldee* at the time of delivery to customers after estimating Sales Deductions and product returns as elements of variable consideration utilizing historical information and market research projections. For the three and six months ended June 30, 2020, we recognized $8.6 million and $18.6 million, respectively, in net product revenue from sales of *Rayaldee.* For the three and six months ended June 30, 2019, we recognized $5.7 million and $11.5 million, respectively, in net product revenue from sales of *Rayaldee.*

The following table presents an analysis of product sales allowances and accruals for the three and six months ended June 30, 2020:

(In thousands)	Chargebacks, discounts, rebates and fees	Governmental	Returns	Total
Balance at March 31, 2020	$ 2,863	$ 6,199	$ 3,332	$ 12,394
Provision related to current period sales	4,468	9,073	686	14,227
Credits or payments made	(4,441)	(8,273)	(188)	(12,902)
Balance at June 30, 2020	$ 2,890	$ 6,999	$ 3,830	$ 13,719
Total gross *Rayaldee* sales				$ 22,876
Provision for *Rayaldee* sales allowances and accruals as a percentage of gross *Rayaldee* sales				62 %

(In thousands)	Chargebacks, discounts, rebates and fees	Governmental	Returns	Total
Balance at December 31, 2019	$ 3,194	$ 5,841	$ 2,751	$ 11,786
Provision related to current period sales	9,293	16,281	1,389	26,963
Credits or payments made	(9,597)	(15,123)	(310)	(25,030)
Balance at June 30, 2020	$ 2,890	$ 6,999	$ 3,830	$ 13,719
Total gross *Rayaldee* sales				$ 45,559
Provision for *Rayaldee* sales allowances and accruals as a percentage of gross *Rayaldee* sales				59 %

Taxes collected from customers related to revenues from services and revenues from products are excluded from revenues.

Revenue from intellectual property

We recognize revenues from the transfer of intellectual property generated through license, development, collaboration and/or commercialization agreements. The terms of these agreements typically include payment to us for one or more of the following: non-refundable, up-front license fees; development and commercialization milestone payments; funding of research and/or development activities; and royalties on sales of licensed products. Revenue is recognized upon satisfaction of a performance obligation by transferring control of a good or service to the customer.

For research, development and/or commercialization agreements that result in revenues, we identify all material performance obligations, which may include a license to intellectual property and know-how, and research and development activities. In order to determine the transaction price, in addition to any upfront payment, we estimate the amount of variable consideration at the outset of the contract either utilizing the expected value or most likely amount method, depending on the facts and circumstances relative to the contract. We constrain (reduce) our estimates of variable consideration such that it is probable that a significant reversal of previously recognized revenue will not occur throughout the life of the contract. When determining if variable consideration should be constrained, we consider whether there are factors outside of our control that could result in a significant reversal of revenue. In making these assessments, we consider the likelihood and magnitude of a potential reversal of revenue. These estimates are re-assessed each reporting period as required.

Upfront License Fees: If a license to our intellectual property is determined to be functional intellectual property distinct from the other performance obligations identified in the arrangement, we recognize revenue from nonrefundable, upfront license fees based on the relative value prescribed to the license compared to the total value of the arrangement. The revenue is recognized when the license is transferred to the customer and the customer is able to use and benefit from the license. For licenses that are not distinct from other obligations identified in the arrangement, we utilize judgment to assess the nature of the combined performance obligation to determine whether the combined performance obligation is satisfied over time or at a point in time. If the combined performance obligation is satisfied over time, we apply an appropriate method of measuring progress for purposes of recognizing revenue from nonrefundable, upfront license fees. We evaluate the measure of progress each reporting period and, if necessary, adjust the measure of performance and related revenue recognition.

Development and Regulatory Milestone Payments: Depending on facts and circumstances, we may conclude that it is appropriate to include the milestone in the estimated transaction price or that it is appropriate to fully constrain the milestone. A milestone payment is included in the transaction price in the reporting period that we conclude that it is probable that recording revenue in the period will not result in a significant reversal in amounts recognized in future periods. We may record revenues from certain milestones in a reporting period before the milestone is achieved if we conclude that achievement of the milestone is probable and that recognition of revenue related to the milestone will not result in a significant reversal in amounts recognized in future periods. We record a corresponding contract asset when this conclusion is reached. Milestone payments that have been fully constrained are not included in the transaction price to date. These milestones remain fully constrained until we conclude that achievement of the milestone is probable and that recognition of revenue related to the milestone will not result in a significant reversal in amounts recognized in future periods. We re-evaluate the probability of achievement of such development milestones and any related constraint each reporting period. We adjust our estimate of the overall transaction price, including the amount of revenue recorded, if necessary.

Research and Development Activities: If we are entitled to reimbursement from our customers for specified research and development expenses, we account for them as separate performance obligations if distinct. We also determine whether the research and development funding would result in revenues or an offset to research and development expenses in accordance

with provisions of gross or net revenue presentation. The corresponding revenues or offset to research and development expenses are recognized as the related performance obligations are satisfied.

Sales-based Milestone and Royalty Payments: Our customers may be required to pay us sales-based milestone payments or royalties on future sales of commercial products. We recognize revenues related to sales-based milestone and royalty payments upon the later to occur of (i) achievement of the customer's underlying sales or (ii) satisfaction of any performance obligation(s) related to these sales, in each case assuming the license to our intellectual property is deemed to be the predominant item to which the sales-based milestones and/or royalties relate.

Other Potential Products and Services: Arrangements may include an option for license rights, future supply of drug substance or drug product for either clinical development or commercial supply at the licensee's election. We assess if these options provide a material right to the licensee and if so, they are accounted for as separate performance obligations at the inception of the contract and revenue is recognized only if the option is exercised and products or services are subsequently delivered or when the rights expire. If the promise is based on market terms and not considered a material right, the option is accounted for if and when exercised. If we are entitled to additional payments when the licensee exercises these options, any additional payments are generally recorded in license or other revenues when the licensee obtains control of the goods, which is upon delivery.

For the three and six months ended June 30, 2020, revenue from transfer of intellectual property principally reflects $13.9 million and $22.7 million of revenue, respectively, related to the Pfizer Transaction (as defined below). In addition, revenue from the transfer of intellectual property and other for the three and six months ended June 30, 2020 includes a $6.2 million grant received by BioReference from the CARES Act. For the three and six months ended June 30, 2019, revenue from the transfer of intellectual property principally reflects $18.2 million and $35.6 million of revenue, respectively, related to the Pfizer Transaction. Refer to Note 13 for discussion of the Pfizer Transaction. Total contract liabilities included in Accrued expenses and Other long-term liabilities was $17.7 million and $21.8 million at June 30, 2020 and December 31, 2019, respectively. The contract liability balance at June 30, 2020 related primarily to accelerated payments received as part of the COVID-19 Aid, Relief, and Economic Security (CARES) Act. Refer to Note 2.

NOTE 13 STRATEGIC ALLIANCES

Japan Tobacco Inc.

On October 12, 2017, EirGen, our wholly owned subsidiary, and Japan Tobacco Inc. ("JT") entered into a Development and License Agreement (the "JT Agreement") granting JT the exclusive rights for the development and commercialization of *Rayaldee* in Japan (the "JT Territory"). The license grant to JT covers the therapeutic and preventative use of the product for (i) SHPT in non-dialysis and dialysis patients with CKD, (ii) rickets, and (iii) osteomalacia (the "JT Initial Indications"), as well as such additional indications as may be added to the scope of the license subject to the terms of the JT Agreement (the JT Additional Indications" and together with the JT Initial Indications, the "JT Field").

In connection with the license, OPKO received an initial upfront payment of $6 million and received another $6 million upon the initiation of OPKO's phase 2 study for *Rayaldee* in dialysis patients in the U.S. in September 2018 (the "Initial Consideration"). OPKO is also eligible to receive up to an additional aggregate amount of $81 million upon the achievement of certain regulatory and development milestones by JT for *Rayaldee* in the JT Territory, and $75 million upon the achievement of certain sales based milestones by JT in the JT Territory. OPKO is also entitled to receive tiered, double digit royalty payments at percentages ranging from low double digits to mid-teens on net sales of *Rayaldee* within the JT Territory. JT will, at its sole cost and expense, be responsible for performing all development activities necessary to obtain all regulatory approvals for *Rayaldee* in Japan and for all commercial activities pertaining to *Rayaldee* in Japan.

The JT Agreement provides for the following: (1) an exclusive license in the JT Territory in the JT Field for the development and commercialization of *Rayaldee*; and (2) at JT's option, EirGen will supply products to support the development, sale and commercialization of the products to JT in the JT Territory.

The Initial Consideration will be recognized over the performance period through 2021, when we anticipate completing the transfer of license materials specified in the JT Agreement and our performance obligation is complete. Payments received for regulatory, development and sales milestones are non-refundable. The milestones are payable if and when the associated milestone is achieved and will be recognized as revenue in the period in which the associated milestone is achieved, assuming all other revenue recognition criteria are met. To date, no revenue has been recognized related to these milestones.

Vifor Fresenius Medical Care Renal Pharma Ltd

In May 2016, EirGen and Vifor Fresenius Medical Care Renal Pharma Ltd ("VFMCRP"), entered into a Development and License Agreement (the "VFMCRP Agreement") for the development and commercialization of *Rayaldee* (the "Product") worldwide, except for (i) the U.S., (ii) any country in Central America or South America (excluding Mexico), (iii) Russia, (iv) China, (v) Japan, (vi) Ukraine, (vii) Belorussia, (viii) Azerbaijan, (ix) Kazakhstan, and (x) Taiwan (the "VFMCRP Territory"). The license to VFMCRP potentially covers all therapeutic and prophylactic uses of the Product in human patients (the "VFMCRP Field"), provided that initially the license is for the use of the Product for the treatment or prevention of SHPT related to patients with CKD and vitamin D insufficiency/deficiency (the "VFMCRP Initial Indication").

Effective May 5, 2020, we entered into an amendment to the VFMCRP Agreement (the "VFMCRP Amendment"), pursuant to which the parties agreed to exclude Mexico, South Korea, the Middle East and all of the countries of Africa from the VFMCRP Territory. In addition, the parties agreed to certain amendments to the milestone structure and to reduce minimum royalties payable. As revised, EirGen is eligible to receive up to $20 million in Regulatory Milestones and $210 million in Sales Milestones tied to launch, pricing and sales of *Rayaldee.*

Under the terms of the VFMCRP Agreement, as amended, EirGen granted to VFMCRP an exclusive license in the VFMCRP Territory in the VFMCRP Field to use certain EirGen patents and technology to make, have made, use, sell, offer for sale, and import Products and to develop, commercialize, have commercialized, and otherwise exploit the Product. EirGen received a non-refundable and non-creditable initial payment of $50 million, which was recognized in Revenue from the transfer of intellectual property and other in our Consolidated Statement of Operations in 2016. EirGen also received a $2.0 million payment triggered by the approval of *Rayaldee* in Canada for the treatment of SHPT in adults with stage 3 or 4 CKD and vitamin D insufficiency in July 2018. EirGen is also eligible to receive up to an additional $20 million in regulatory milestones ("Regulatory Milestones") and $210 million in Sales Milestones tied to launch, pricing and sales of*Rayaldee* ("Sales Milestones"), and will receive tiered royalties on sales of the product at percentage rates that range from the mid-teens to the mid-twenties or a minimum royalty, whichever is greater, upon the commencement of sales of the Product within the VFMCRP Territory and in the VFMCRP Field.

We plan to share responsibility with VFMCRP for the conduct of trials specified within an agreed-upon development plan, with each company leading certain activities within the plan. EirGen will lead the manufacturing activities within and outside the VFMCRP Territory and the commercialization activities outside the VFMCRP Territory and outside the VFMCRP Field in the VFMCRP Territory and VFMCRP will lead the commercialization activities in the VFMCRP Territory and the VFMCRP Field. For the initial development plan, the companies have agreed to certain cost sharing arrangements. VFMCRP will be responsible for all other development costs that VFMCRP considers necessary to develop the Product for the use of the Product for the VFMCRP Initial Indication in the VFMCRP Territory in the VFMCRP Field except as otherwise provided in the VFMCRP Agreement. The first of the clinical studies provided for in the development activities commenced in September 2018.

In connection with the VFMCRP Agreement, the parties entered into a letter agreement pursuant to which EirGen granted to VFMCRP an exclusive option (the "Option") to acquire an exclusive license under certain EirGen patents and technology to use, import, offer for sale, sell, distribute and commercialize the Product in the U.S. solely for the treatment of SHPT in dialysis patients with CKD and vitamin D insufficiency (the "Dialysis Indication"). Upon exercise of the Option, VFMCRP will reimburse EirGen for all of the development costs incurred by EirGen with respect to the Product for the Dialysis Indication in the U.S. VFMCRP would also pay EirGen up to an additional aggregate amount of $555 million of sales-based milestones upon the achievement of certain milestones and would be obligated to pay royalties at percentage rates that range from the mid-teens to the mid-twenties on sales of the Product in the U.S. for the Dialysis Indication. To date, VFMCRP has not exercised its option.

Payments received for Regulatory Milestones and Sales Milestones are non-refundable. The Regulatory Milestones are payable if and when VFMCRP obtains approval from certain regulatory authorities and will be recognized as revenue in the period in which the associated milestone is achieved, assuming all other revenue recognition criteria are met. We account for the Sales Milestones as royalties and Sales Milestones payments will be recognized as revenue in the period in which the associated milestone is achieved or sales occur, assuming all other revenue recognition criteria are met.

Pfizer Inc.

In December 2014, we entered into an exclusive worldwide agreement (the "Pfizer Agreement") with Pfizer for the development and commercialization of our long-acting hGH-CTP (Somatrogon) for the treatment of growth hormone deficiency ("GHD") in adults and children, as well as for the treatment of growth failure in children born small for gestational age (the "Pfizer Transaction").

In May 2020, we entered into an Amended and Restated Development and Commercialization License Agreement (the "Restated Agreement") with Pfizer, effective January 1, 2020, pursuant to which the parties agreed, among other things, to share all costs for Manufacturing Activities, as defined in the Restated Agreement, for developing a licensed product for the three indications included in the Agreement.

On October 21, 2019, we and Pfizer announced that the global phase 3 trial evaluating Somatrogon (hGH-CTP) dosed once-weekly in prepubertal children with GHD met its primary endpoint of non-inferiority to daily Genotropin® (somatropin) for injection, as measured by annual height velocity at 12 months.

Under the terms of the Pfizer Transaction, as restated, we received non-refundable and non-creditable upfront payments of $295.0 million and are eligible to receive up to an additional $275.0 million upon the achievement of certain regulatory milestones. Pfizer received the exclusive license to commercialize hGH-CTP worldwide. In addition, we are eligible to receive initial tiered royalty payments associated with the commercialization of hGH-CTP for adult GHD with percentage rates ranging from the high teens to mid-twenties. Upon the launch of hGH-CTP for pediatric GHD in certain major markets, the royalties will transition to regional, tiered gross profit sharing for both hGH-CTP and Pfizer's Genotropin®.

The agreement with Pfizer will remain in effect until the last sale of the licensed product, unless earlier terminated as permitted under the Pfizer Agreement. In addition to termination rights for material breach and bankruptcy, Pfizer is permitted to terminate the Pfizer Agreement in its entirety, or with respect to one or more world regions, without cause after a specified notice period. If the Pfizer Agreement is terminated by us for Pfizer's uncured material breach, or by Pfizer without cause, provision has been made for transition of product and product responsibilities to us for the terminated regions, as well as continued supply of product by Pfizer or transfer of supply to us in order to support the terminated regions.

We recognized the non-refundable $295.0 million upfront payments as revenue as the research and development services were completed and as of June 30, 2020, we had no contract liabilities related to the Pfizer Transaction.

The Pfizer Transaction includes milestone payments of $275.0 million upon the achievement of certain milestones. The milestones range from $20.0 million to $90.0 million each and are based on achievement of regulatory approval in the U.S. and regulatory approval and price approval in other major markets. The milestone payments will be recognized as revenue in the period in which the associated milestone is achieved, assuming all other revenue recognition criteria are met. To date, no revenue has been recognized related to the achievement of the milestones.

TESARO

In November 2009, we entered into an asset purchase agreement (the "NK-1 Agreement") under which we acquired VARUBI™ (rolapitant) and other neurokinin-1 ("NK-1") assets from Merck. In December 2010, we entered into an exclusive license agreement with TESARO, Inc. ("TESARO"), in which we out-licensed the development, manufacture, commercialization and distribution of our lead NK-1 candidate, VARUBI™ (the "TESARO License"). Under the terms of the license, we received a $6.0 million upfront payment from TESARO and we received $30 million of milestone payments from TESARO upon achievement of certain regulatory and commercial sale milestones and we are eligible to receive additional commercial milestone payments of up to $85 million if specified levels of annual net sales are achieved. The sales based milestone payments will be recognized as revenue in full in the period in which the associated sales occur. For the six months ended June 30, 2020 and 2019, no revenue was recognized related to the achievement of the milestones under the TESARO License.

Under the TESARO License, TESARO was also obligated to pay us tiered royalties on annual net sales achieved in the U.S. and Europe at percentage rates that range from the low double digits to the low twenties, and outside of the U.S. and Europe at low double-digit percentage rates until the later of the date that all of the patent rights licensed from us and covering VARUBI™ expire, are invalidated or are not enforceable and 12 years from the first commercial sale of the product. TESARO announced in 2018 that it had elected to suspend further distribution of Varubi IV. In June 2018, TESARO assigned its rights and obligations under the agreement to TerSera Therapeutics LLC ("TerSera") pursuant to an asset purchase agreement. Under the asset purchase agreement, TerSera is responsible for VARUBI in the U.S. and Canada and TESARO was permitted to continue to commercialize VARUBY® in Europe and the rest of the world though a sublicense with TerSera. In September 2019, TESARO informed us and TerSera that it intends to stop selling VARUBY® in the TESARO Territory and that it intends to withdraw its marketing authorization for VARUBY® in Europe.

The term of the license with TerSera will remain in force until the expiration of the royalty term in each country, unless we terminate the license earlier for material breach of the license or bankruptcy. TerSera has a right to terminate the license at any time during the term for any reason on three months' written notice.

Pharmsynthez

In April 2013, we entered into a series of concurrent transactions with Pharmsynthez, a Russian pharmaceutical company traded on the Moscow Stock Exchange, pursuant to which we acquired an equity method investment in Pharmsynthez (ownership 9%). We also granted rights to certain technologies in the Russian Federation, Ukraine, Belarus, Azerbaijan and Kazakhstan (the "Pharmsynthez Territories") to Pharmsynthez and agreed to perform certain development activities. We will receive from Pharmsynthez royalties on net sales of products incorporating the technologies in the Pharmsynthez Territories, as well as a percentage of any sublicense income from third parties for the technologies in the Pharmsynthez Territories.

Phio Pharmaceuticals Corp.

In March 2013, we completed the sale to RXi Pharmaceuticals Corporation (now known as Phio Pharmaceuticals Corp.) of substantially all of our assets in the field of RNA interference (the "RNAi Assets") (collectively, the "Asset Purchase Agreement"). Pursuant to the Asset Purchase Agreement, Phio will be required to pay us up to $50.0 million in milestone payments upon the successful development and commercialization of each drug developed by Phio, certain of its affiliates or any of its or their licensees or sublicensees utilizing patents included within the RNAi Assets (each, a "Qualified Drug"). In addition, Phio will also be required to pay us royalties equal to: (a) a mid single-digit percentage of "Net Sales" (as defined in the Asset Purchase Agreement) with respect to each Qualified Drug sold for an ophthalmologic use during the applicable "Royalty Period" (as defined in the Asset Purchase Agreement); and (b) a low single-digit percentage of net sales with respect to each Qualified Drug sold for a non-ophthalmologic use during the applicable Royalty Period.

Other

We have completed strategic deals with numerous institutions and commercial partners. In connection with these agreements, upon the achievement of certain milestones we are obligated to make certain payments and have royalty obligations upon sales of products developed under the license agreements. At this time, we are unable to estimate the timing and amounts of payments as the obligations are based on future development of the licensed products.

NOTE 14 SEGMENTS

We manage our operations in two reportable segments, pharmaceutical and diagnostics. The pharmaceutical segment consists of our pharmaceutical operations in Chile, Mexico, Ireland, Israel and Spain, *Rayaldee* product sales and our pharmaceutical research and development. The diagnostics segment primarily consists of our clinical laboratory operations through BioReference and our point-of-care operations. There are no significant inter-segment sales. We evaluate the performance of each segment based on operating profit or loss. There is no inter-segment allocation of interest expense and income taxes.

Information regarding our operations and assets for our operating segments and the unallocated corporate operations as well as geographic information are as follows:

(In thousands)	For the three months ended June 30, 2020	For the three months ended June 30, 2019	For the six months ended June 30, 2020	For the six months ended June 30, 2019
Revenue from services:				
Pharmaceutical	$ —	$ —	$ —	$ —
Diagnostics	250,971	178,458	421,811	357,349
Corporate	—	—	—	—
	$ 250,971	$ 178,458	$ 421,811	$ 357,349
Revenue from products:				
Pharmaceutical	$ 29,356	$ 28,680	$ 60,430	$ 53,981
Diagnostics	—	—	—	—
Corporate	—	—	—	—
	$ 29,356	$ 28,680	$ 60,430	$ 53,981
Revenue from transfer of intellectual property and other:				
Pharmaceutical	$ 14,686	$ 19,230	$ 24,239	$ 37,490
Diagnostics	6,194	—	6,194	—
Corporate	—	—	—	—
	$ 20,880	$ 19,230	$ 30,433	$ 37,490
Operating loss:				
Pharmaceutical	$ (5,996)	$ (8,556)	$ (20,121)	$ (38,033)
Diagnostics	40,935	(28,013)	22,803	(61,582)
Corporate	(7,760)	(10,691)	(16,263)	(22,962)
	$ 27,179	$ (47,260)	$ (13,581)	$ (122,577)
Depreciation and amortization:				
Pharmaceutical	$ 7,119	$ 7,382	$ 14,240	$ 14,908
Diagnostics	15,147	16,260	30,019	32,530
Corporate	—	19	59	39
	$ 22,266	$ 23,661	$ 44,318	$ 47,477
Loss from investment in investees:				
Pharmaceutical	$ (189)	$ (271)	$ (323)	$ (2,125)
Diagnostics	—	—	—	—
Corporate	—	—	—	—
	$ (189)	$ (271)	$ (323)	$ (2,125)
Revenues:				
United States	$ 265,890	$ 184,310	$ 446,761	$ 369,203
Ireland	16,847	22,174	28,749	42,707
Chile	11,152	9,051	22,002	16,915
Spain	4,136	4,876	8,292	9,294
Israel	1,183	3,768	2,890	6,884
Mexico	1,866	2,058	3,708	3,589
Other	133	131	272	228
	$ 301,207	$ 226,368	$ 512,674	$ 448,820

(In thousands)	June 30, 2020	December 31, 2019
Assets:		
Pharmaceutical	$ 1,148,151	$ 1,174,639
Diagnostics	1,121,202	1,035,112
Corporate	54,381	99,521
	$ 2,323,734	$ 2,309,272
Goodwill:		
Pharmaceutical	$ 236,790	$ 237,131
Diagnostics	434,809	434,809
Corporate	—	—
	$ 671,599	$ 671,940

No customer represented more than 10% of our total consolidated revenue during the six months ended June 30, 2020 and 2019. As of June 30, 2020 and December 31, 2019, no customer represented more than 10% of our accounts receivable balance.

NOTE 15 LEASES

We have operating leases for office space, laboratory operations, research and development facilities, manufacturing locations, warehouses and certain equipment. We determine if a contract contains a lease at inception or modification of a contract. Our leases generally do not provide an implicit interest rate, and we therefore use our incremental borrowing rate as the discount rate when measuring operating lease liabilities. The incremental borrowing rate represents an estimate of the interest rate we would incur at lease commencement to borrow an amount equal to the lease payments on a collateralized basis over the term of the lease within a particular currency environment. We used the incremental borrowing rates as of January 1, 2019 for operating leases that commenced prior to that date. Many of our leases contain rental escalation, renewal options and/or termination options that are factored into our determination of lease payments as appropriate. Variable lease payment amounts that cannot be determined at the commencement of the lease are not included in the right-to-use assets or liabilities.

The following table presents the lease balances within the Condensed Consolidated Balance Sheet as of June 30, 2020:

(in thousands)	**Classification on the Balance Sheet**	**June 30, 2020**	**December 31, 2019**
Assets			
Operating lease assets	Operating lease right-of-use assets	$ 38,469	$ 39,380
Finance lease assets	Property, plant and equipment, net	5,395	6,789
Liabilities			
Current			
Operating lease liabilities	Current maturities of operating leases	10,298	12,038
Accrued expenses	Current maturities of finance leases	2,435	2,743
Long-term			
Operating lease liabilities	Operating lease liabilities	28,759	27,665
Other long-term liabilities	Finance lease liabilities	$ 2,960	$ 4,046
Weighted average remaining lease term			
Operating leases		5.7 years	5.6 years
Finance leases		2.5 years	2.6 years
Weighted average discount rate			
Operating leases		6.4 %	6.3 %
Finance leases		3.9 %	3.0 %

The following table reconciles the undiscounted future minimum lease payments (displayed by year and in the aggregate) under noncancelable operating leases with terms of more than one year to the total operating lease liabilities recognized on our Condensed Consolidated Balance Sheet as of June 30, 2020:

(in thousands)	Operating	Finance
July 1, 2020 through December 31, 2020	$ 6,604	$ 1,404
2021	7,479	2,186
2022	6,506	1,175
2023	5,845	590
2024	4,671	249
Thereafter	17,374	—
Total undiscounted future minimum lease payments	48,479	5,604
Less: Difference between lease payments and discounted lease liabilities	9,422	209
Total lease liabilities	$ 39,057	$ 5,395

Expense under operating leases and finance leases was $9.7 million and $1.2 million, respectively, for the six months ended June 30, 2020, which includes $1.6 million of variable lease costs. Expense under operating leases and finance leases was $9.8 million and $2.0 million, respectively, for the six months ended June 30, 2019, which includes $1.7 million of variable lease costs. Operating lease costs and finance lease costs are included within Operating loss in the Condensed Consolidated Statement of Operations. Short-term lease costs were not material.

Supplemental cash flow information is as follows:

(in thousands)	For the six months ended June 30,	
	2020	2019
Operating cash out flows from operating leases	$ 9,804	$ 10,804
Operating cash out flows from finance leases	86	234
Financing cash out flows from finance leases	1,026	1,590
Total	$ 10,916	$ 12,628

NOTE 16 SUBSEQUENT EVENTS

The complexities and ambiguities of billing, reimbursement regulations and claims processing, as well as considerations unique to Medicare and Medicaid programs, require us to estimate the potential for retroactive adjustments as an element of variable consideration in the recognition of revenue in the period the related services are rendered. In July 2020, we received a favorable Medicare appeal decision from Novitas Solutions Inc. (“Novitas”) for previously denied Medicare claims for *4Kscore* tests we performed during 2019. As a result of the favorable appeal, Medicare will reimburse us for such *4Kscore* tests for patients who meet defined criteria. Due to a prior non-coverage determination by Novitas, no revenue was previously recognized for these *4Kscore* tests and therefore we recognized $10.9 million for the previously denied *4Kscore* tests as a component of Revenue from services for the three and six months ended June 30, 2020.

We have reviewed all subsequent events and transactions that occurred after the date of our June 30, 2020 Condensed Consolidated Balance Sheet, through the time of filing this Quarterly Report on Form 10-Q.

ITEM 2. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS.

OVERVIEW

You should read this discussion together with the unaudited Condensed Consolidated Financial Statements, related notes, and other financial information included elsewhere in this Quarterly Report on Form 10-Q together with our audited consolidated financial statements, related notes, and other information contained in our Annual Report on Form 10-K for the year ended December 31, 2019 (the "Form 10-K"). The following discussion contains assumptions, estimates and other forward-looking statements that involve a number of risks and uncertainties, including those discussed under "Risk Factors," in Part I, Item 1A of the Form 10-K and in Part II, Item 1A of this Quarterly Report on Form 10-Q and as described from time to time in our other filings with the Securities and Exchange Commission. These risks could cause our actual results to differ materially from those anticipated in these forward-looking statements.

We are a diversified healthcare company that seeks to establish industry-leading positions in large and rapidly growing medical markets. Our diagnostics business includes BioReference Laboratories Inc. ("BioReference"), one of the nation's largest full service laboratories with a core genetic testing business and an almost 300-person sales and marketing team to drive growth and leverage new products, including the *4Kscore* test. Our pharmaceutical business features *Rayaldee*, an FDA-approved treatment for secondary hyperparathyroidism ("SHPT") in adults with stage 3 or 4 chronic kidney disease ("CKD") and vitamin D insufficiency (launched in November 2016), OPK88004, a selective androgen receptor modulator which we are exploring for various potential indications, and OPK88003, a once or twice weekly oxyntomodulin for type 2 diabetes and obesity which is a clinically advanced drug candidate among the new class of GLP-1 glucagon receptor dual agonists (phase 2b). Our pharmaceutical business also features hGH-CTP, a once-weekly human growth hormone injection for which we have partnered with Pfizer and successfully completed a phase 3 study in August 2019.

We operate established pharmaceutical platforms in Spain, Ireland, Chile and Mexico, which are generating revenue and from which we expect to generate positive cash flow and facilitate future market entry for our products currently in development. We have a development and commercial supply pharmaceutical company, as well as a global supply chain operation and holding company in Ireland, which we expect will play an important role in the development, manufacturing, distribution and approval of a wide variety of drugs with an emphasis on high potency products. We also own a specialty active pharmaceutical ingredients ("APIs") manufacturer in Israel, which we expect will facilitate the development of our pipeline of molecules and compounds for our proprietary molecular diagnostic and therapeutic products.

RECENT DEVELOPMENTS

In June 2020, we announced that the Japan Phase 3 clinical trial met its primary and secondary objectives, and demonstrated that the efficacy and safety of Somatrogon administered weekly was comparable to GENOTROPIN® for injection administered once-daily as measured by annual height velocity after 12 months of treatment in treatment-naïve Japanese pre-pubertal children with GHD. The findings were consistent with the results previously reported in the Phase 3 global study.

RESULTS OF OPERATIONS

Impact of COVID-19

As the disease caused by SARS-CoV-2, a novel strain of coronavirus, COVID-19 continues to spread and severely impact the economy of the U.S. and other countries around the world, we are committed to being a part of the coordinated public and private sector response to this unprecedented challenge. In response to the COVID-19 pandemic, BioReference is accepting specimens for two types of COVID-19 testing, diagnostic molecular testing and serology antibody testing, from healthcare providers, clinics and health and hospital systems throughout the U.S., to promote earlier diagnosis of the coronavirus, assess a patient's immune response to the virus and aid in limiting spread of infection. In addition to its robust nationwide COVID-19 testing offering, BioReference has partnerships with the New York State Department of Health, the New York City Health and Hospital Corporation (NYC Health + Hospitals), the State of New Jersey, the State of Florida and the cities of Detroit and Miami, among others, to provide COVID-19 testing. BioReference performed approximately 331.6 thousand serology antibody tests and 2.2 million diagnostic molecular tests for COVID-19 during the three months ended June 30, 2020, which represented 28.1% of BioReference's total test volume during the second quarter of 2020. For serologic antibody testing, BioReference has partnered with the State of New York, New York City and a number of employers and government agencies, with the capacity to perform up to 400,000 tests per day and for diagnostic molecular tests, BioReference has the capacity to perform more than 50,000 tests per day.

We have put preparedness plans in place at our facilities to maintain continuity of operations, while also taking steps to keep colleagues and customers healthy and safe. In line with recommendations to reduce large gatherings and increase social distancing, we have, where practical, transitioned many office-based colleagues to a remote work environment.

Beginning in March 2020, BioReference experienced, and continues to experience, a decline in routine clinical and genomics testing volumes due to the COVID-19 pandemic. Excluding COVID-19 test volumes, for the three months ended June 30, 2020, volumes in our diagnostics segment were down 46.5% as compared to volumes in the second quarter of 2019. Additionally, sales of *Rayaldee* have not increased in accordance with its expected growth trajectory as a result of challenges in onboarding new patients due to the COVID-19 pandemic. Federal, state and local governmental policies and initiatives designed to reduce the transmission of COVID-19 have resulted in, among other things, a significant reduction in physician office visits, the cancellation of elective medical procedures, customers closing or severely curtailing their operations (voluntarily or in response to government orders), and the adoption of work-from-home or shelter-in-place policies, all of which have had, and may continue to have, an adverse impact on our operating results, cash flows and financial condition, including continued declines in testing volumes. It is also possible that we will experience an adverse impact on cash collections as a result of the impact of the COVID-19 pandemic. As stay at home orders and other restrictions have been lifted, we have seen our routine clinical and genomic testing volumes trending towards normalization with prior periods, however should stay at home orders or other restrictions be reenacted, we could see our routine testing levels decline. We also continue to see a substantial need for COVID-19 testing by our existing clients and expect new clients as infection rates for the virus continue to increase across the country.

In March 2020, in response to the COVID-19 pandemic, the CARES Act was signed into law. The CARES Act provides numerous tax provisions and other stimulus measures, including temporary changes regarding the prior and future utilization of net operating losses, temporary changes to the prior and future limitations on interest deductions, temporary suspension of certain payment requirements for the employer portion of Social Security taxes, technical corrections from prior tax legislation for tax depreciation of certain qualified improvement property, and the creation of certain payroll tax credits associated with the retention of employees.

We have received, or expect to receive a number of benefits under The CARES Act including, but not limited to:

- We received approximately $14 million under The Centers for Medicare & Medicaid Services (CMS) Accelerated and Advance Payment Program, which provides accelerated payments to Medicare providers/suppliers working to provide treatment to patients and combat the COVID-19 pandemic, and the amounts advanced are loans which will be offset against future claims and must be repaid;
- We are eligible to defer depositing the employer's share of Social Security taxes for payments due from March 27, 2020 through December 31, 2020, interest-free and penalty-free;
- We received approximately $6.2 million during the three months ended June 30, 2020 from the initial tranche of funds that was distributed to healthcare providers for related expenses or lost revenues that are attributable to the COVID-19 pandemic;
- U.S. Department of Health and Human Services (HHS), will provide claims reimbursement to healthcare providers generally at Medicare rates for testing uninsured patients; and

- Clinical laboratories are provided a one-year reprieve from the reporting requirements under the Protecting Access to Medicare Act ("PAMA") as well as a one-year delay of reimbursement rate reductions for clinical laboratory services provided under Medicare that were scheduled to take place in 2021.

In April 2020, we took certain temporary actions to manage our workforce costs including reduced hours for employees whose work was significantly impacted and temporary furloughs for non-essential employees with diminished work requirements. Substantially all of our furloughed employees have returned, and in the second quarter of 2020 we hired approximately 2,000 additional employees to support COVID-19 testing and the continued increase to normalized levels of routine clinical and genomic testing.

Since the pandemic began in the U.S., we have invested, and expect to continue to invest, in testing capabilities and infrastructure to meet demand for our molecular and antibody testing for COVID-19.

FOR THE THREE MONTHS ENDED JUNE 30, 2020 AND 2019

Our consolidated income (loss) from operations for the three months ended June 30, 2020 and 2019 is as follows:

	For the three months ended June 30,		
(In thousands)	2020	2019	Change
Revenues:			
Revenue from services	$ 250,971	$ 178,458	$ 72,513
Revenue from products	29,356	28,680	676
Revenue from transfer of intellectual property and other	20,880	19,230	1,650
Total revenues	301,207	226,368	74,839
Costs and expenses:			
Cost of revenue	162,651	144,223	18,428
Selling, general and administrative	77,721	88,475	(10,754)
Research and development	17,608	28,286	(10,678)
Contingent Consideration	1,111	(3,775)	4,886
Amortization of intangible assets	14,937	16,419	(1,482)
Total costs and expenses	274,028	273,628	400
Income (loss) from operations	27,179	(47,260)	74,439

We manage our operations in two reportable segments, pharmaceuticals and diagnostics. The pharmaceuticals segment consists of our pharmaceutical operations in Chile, Mexico, Ireland, Israel and Spain, *Rayaldee* product sales and our pharmaceutical research and development. The diagnostics segment primarily consists of our clinical laboratory operations through BioReference and our point-of-care operations. There are no significant inter-segment sales. We evaluate the performance of each segment based on operating profit or loss. The following presents the financial measures that management considers to be the most significant indicators of the Company's performance.

Diagnostics

(In thousands)	For the three months ended June 30, 2020	2019	Change
Revenues			
Revenue from services	$ 250,971	$ 178,458	$ 72,513
Revenue from transfer of intellectual property and other	6,194	—	6,194
Total revenues	257,165	178,458	78,707
Costs and expenses:			
Cost of revenue	144,783	129,802	14,981
Selling, general and administrative	57,712	62,322	(4,610)
Research and development	3,785	3,458	327
Contingent Consideration	35	91	(56)
Amortization of intangible assets	9,915	10,798	(883)
Total costs and expenses	216,230	206,471	9,759
Income (loss) from operations	40,935	(28,013)	68,948

Revenue. Revenue from services for the three months ended June 30, 2020 increased by approximately $72.5 million compared to the three months ended June 30, 2019, primarily due to the positive impacts of increased COVID-19 testing volumes. Revenue from services further benefited from the successful appeal of previously denied Medicare claims for the *4Kscore* test resulting in approximately $10.9 million of incremental revenue. In addition, Revenue from transfer of intellectual property and other for the three months ended June 30, 2020 included a $6.2 million grant received by BioReference from the CARES Act. BioReference performed approximately 331.6 thousand serology antibody tests and 2.2 million diagnostic molecular tests for COVID-19 during the three months ended June 30, 2020, which represented 28.1% of its total testing volume for the second quarter of 2020. Additionally, BioReference experienced $5.6 million of higher net reimbursement on our genomic testing due to a test mix shift of increased whole exome sequencing. This was partially offset by the negative impacts of:

- Reduced clinical test volumes and genomics test volumes at BioReference of $68.3 million and $13.6 million, respectively, exclusive of COVID-19 test volumes. The decline in volume reflects the negative impacts from the COVID-19 pandemic, principally from referring physician office closures and stay-at-home guidance throughout states in which we predominately operate, and declines in routine clinical and genomics testing, which declined 46.5% versus the Company's normal daily levels.
- $1.0 million from lower net reimbursement on our clinical testing resulting from the latest negative impact of the PAMA price reduction that went into effect January 1, 2020 and were partially offset by improved operational procedures and a flattening of our denial rate.

Estimated collection amounts are subject to the complexities and ambiguities of billing, reimbursement regulations and claims processing, as well as considerations unique to Medicare and Medicaid programs, and require us to consider the potential for retroactive adjustments when estimating variable consideration in the recognition of revenue in the period the related services are rendered. For the three months ended June 30, 2020 and 2019, revenue increases (reductions) due to changes in estimates of implicit price concessions for performance obligations satisfied in prior periods of $9.0 million and $(5.9) million, respectively, were recognized.

The composition of Revenue from services by payor for the three months ended June 30, 2020 and 2019 was as follows:

(In thousands)	Three months ended June 30, 2020	2019
Healthcare insurers	$ 84,082	$ 106,278
Government payers	15,886	28,634
Client payers	141,090	38,101
Patients	9,913	5,445
Total	$ 250,971	$ 178,458

Client payers include cities and states for which BioReference provides COVID-19 testing services.

Cost of revenue. Cost of revenue for the three months ended June 30, 2020 increased $15.0 million compared to the three months ended June 30, 2019. Cost of revenue increased $44.9 million due to labor and material costs to produce COVID-19 testing volumes during the three months ended June 30, 2020, which was partially offset by an overall reduction in other clinical and genomic test volumes, and to cost reduction initiatives, which resulted in per patient encounter efficiency gains at BioReference.

Selling, general and administrative expenses. Selling, general and administrative expenses for the three months ended June 30, 2020 and 2019 were $57.7 million and $62.3 million, respectively. The decrease in selling, general and administrative expenses in our diagnostics segment was primarily due to $2.0 million of expenses incurred in the second quarter of 2019 in connection with certain legal matters, and to decreased expenses at BioReference due to the enactment of cost reduction initiatives.

Research and development expenses. The following table summarizes the components of our research and development expenses:

Research and Development Expenses	For the three months ended June 30,	
	2020	2019
External expenses:		
PMA studies	$ 57	$ 110
Research and development employee-related expenses	2,163	2,098
Other internal research and development expenses	1,565	1,250
Total research and development expenses	$ 3,785	$ 3,458

Research and development for the diagnostic segment relates to the development of testing services for our clinical and genomics testing at BioReference and the development of the Claros Analyzer, a diagnostic instrument system to provide rapid, high performance blood test results in the point-of-care setting. The increase in research and development expenses for the three months ended June 30, 2020 was primarily due to an increase in research and development expenses related to the development of clinical and genomics testing services.

Contingent consideration. Contingent consideration for the three months ended June 30, 2020 and 2019 was $35 thousand and $91 thousand of expense, respectively. Contingent consideration for the three months ended June 30, 2020 and 2019 was attributable to changes in assumptions regarding the timing of achievement of future milestones for OPKO Diagnostics in both periods, and potential amounts payable to former stockholders of OPKO Diagnostics in connection therewith pursuant to our acquisition agreement in October 2011.

Amortization of intangible assets. Amortization of intangible assets was $9.9 million and $10.8 million, respectively, for the three months ended June 30, 2020 and 2019. Amortization expense reflects the amortization of acquired intangible assets with defined useful lives.

We believe that our estimates and assumptions in testing goodwill and other intangible assets are consistent with assumptions that marketplace participants would use in their estimates. However, if actual results are not consistent with our estimates and assumptions, including as a result of the COVID-19 global pandemic, we may be exposed to an impairment charge that could be material.

Pharmaceuticals

(In thousands)	For the three months ended June 30, 2020	2019	Change
Revenues:			
Revenue from products	$ 29,356	$ 28,680	$ 676
Revenue from transfer of intellectual property and other	14,686	19,230	(4,544)
Total revenues	44,042	47,910	(3,868)
Costs and expenses:			
Cost of revenue	17,881	14,475	3,406
Selling, general and administrative	12,008	15,207	(3,199)
Research and development	14,051	25,029	(10,978)
Contingent Consideration	1,076	(3,866)	4,942
Amortization of intangible assets	5,022	5,621	(599)
Total costs and expenses	50,038	56,466	(6,428)
Loss from operations	(5,996)	(8,556)	2,560

Revenue. The increase in revenue from products for the three months ended June 30, 2020 compared to the three months ended June 30, 2019 was primarily attributable to an increase in sales of *Rayaldee*, which were $8.6 million for the three months ended June 30, 2020, compared to $5.7 million for the comparative period in 2019. However, sales of *Rayaldee* have not increased in accordance with its expected growth trajectory as a result of challenges in onboarding new patients due to the COVID-19 pandemic. Revenue from transfer of intellectual property for the three months ended June 30, 2020 and 2019 principally reflected $13.9 million and $18.2 million, respectively, of revenue related to the Pfizer Transaction.

Cost of revenue. Cost of revenue for the three months ended June 30, 2020 increased $3.4 million compared to the three months ended June 30, 2019. Cost of product revenue increased primarily due to an increase in sales of *Rayaldee* in 2020 and changes in product mix during the period.

Selling, general and administrative expenses. Selling, general and administrative expenses for the three months ended June 30, 2020 and 2019 were $12.0 million and $15.2 million, respectively. The decrease in selling, general and administrative expenses was primarily due to decreased expenses at our pharmaceutical subsidiaries and a decrease in equity-based compensation expense.

Research and development expenses. Research and development expenses for the three months ended June 30, 2020 and 2019 were $14.1 million and $25.0 million, respectively. Research and development expenses include external and internal expenses, partially offset by third-party grants and funding arising from collaboration agreements. External expenses include clinical and non-clinical activities performed by contract research organizations, lab services, purchases of drug and diagnostic product materials and manufacturing development costs. We track external research and development expenses by individual program for phase 3 clinical trials for drug approval and premarket approval (“PMA”) for diagnostics tests, if any. Internal expenses include employee-related expenses such as salaries, benefits and equity-based compensation expense. Other internal research and development expenses are incurred to support overall research and development activities and include expenses related to general overhead and facilities.

The following table summarizes the components of our research and development expenses:

Research and Development Expenses	For the three months ended June 30,	
	2020	2019
External expenses:		
Manufacturing expense for biological products	$ (309)	$ 10,426
Phase III studies	2,297	4,155
Post-marketing studies	282	239
Earlier-stage programs	3,964	3,066
Research and development employee-related expenses	4,886	4,753
Other internal research and development expenses	2,931	2,348
Third-party grants and funding from collaboration agreements	—	42
Total research and development expenses	$ 14,051	$ 25,029

The decrease in research and development expenses for the three months ended June 30, 2020 was primarily due to a decrease in research and development expenses related to hGH-CTP, a once-weekly human growth hormone injection for which we have partnered with Pfizer and successfully completed a phase 3 study in August 2019. Ongoing expenses on the hGH-CTP program support Open Label Extension studies that will continue until market launch in most countries, as well as the preparation of applications for marketing approvals. Research and development expenses for the pharmaceutical segment for the three months ended June 30, 2020 and 2019 included equity-based compensation expense of $0.3 million and $0.4 million, respectively. The COVID-19 pandemic has impacted our ongoing and prospective clinical trials. We expect that Research and development expenses will increase in the future if and when these clinical trials commence or resume.

In May 2020, we entered into a Restated Agreement with Pfizer, effective January 1, 2020, pursuant to which the parties agreed to share all costs for Manufacturing Activities, as defined in the Restated Agreement, for developing a licensed product for the three indications included in the agreement. This resulted in a reversal of certain previously accrued costs for manufacturing expenses for biological products in the second quarter of 2020.

Contingent consideration. Contingent consideration for the three months ended June 30, 2020 and 2019 was $1.1 million of expense and $3.9 million reversal of expense, respectively. Contingent consideration for the three months ended June 30, 2020 and 2019 was primarily attributable to changes in assumptions regarding the timing of achievement of future milestones for OPKO Renal, and potential amounts payable to former stockholders of OPKO Renal in connection therewith, pursuant to our acquisition agreement in March 2013.

Amortization of intangible assets. Amortization of intangible assets was $5.0 million and $5.6 million, respectively, for the three months ended June 30, 2020 and 2019. Amortization expense reflects the amortization of acquired intangible assets with defined useful lives. Our indefinite lived IPR&D assets will not be amortized until the underlying development programs are completed. Upon obtaining regulatory approval by the U.S. FDA, the IPR&D assets will be accounted for as a finite-lived intangible asset and amortized on a straight-line basis over its estimated useful life.

We believe that our estimates and assumptions in testing goodwill and other intangible assets, including IPR&D, for impairment are consistent with assumptions that marketplace participants would use in their estimates. However, if actual results are not consistent with our estimates and assumptions, including as a result of the COVID-19 global pandemic, we may be exposed to an impairment charge that could be material. If we are unable to successfully develop hGH-CTP, or changes in projections and assumptions negatively impact our forecast of net cash flows, we may be exposed to a material impairment charge related to the IPR&D for hGH-CTP.

Corporate

(In thousands)	For the three months ended June 30, 2020	2019	Change
Cost of revenue	$ (14)	$ (56)	42
Selling, general and administrative	8,002	10,947	(2,945)
Research and development	(228)	(200)	(28)
Total costs and expenses	7,760	10,691	(2,931)
Loss from operations	(7,760)	(10,691)	2,931

Operating loss for our unallocated corporate operations for the three months ended June 30, 2020 and 2019 was $7.8 million and $10.7 million, respectively, and principally reflects general and administrative expenses incurred in connection with our corporate operations. The decrease in operating loss for the three months ended June 30, 2020 was primarily attributable to a decrease in legal fees incurred during that period compared to the three months ended June 30, 2019.

Other

Interest income. Interest income for the three months ended June 30, 2020 and 2019 was not significant as our cash investment strategy emphasizes the security of the principal invested and fulfillment of liquidity needs.

Interest expense. Interest expense for the three months ended June 30, 2020 and 2019 was $5.5 million and $5.5 million, respectively. Interest expense was principally related to interest incurred on the 2025 Notes, the 2023 Convertible Notes, the 2033 Senior Notes, and BioReference's outstanding debt under its credit facility.

Fair value changes of derivative instruments, net. Fair value changes of derivative instruments, net for the three months ended June 30, 2020 and 2019, was $13.3 thousand and $0.4 million of expense, respectively. Derivative income for the three months ended June 30, 2019, principally related to the change in fair value of warrants to purchase additional shares of Xenetic.

Other income (expense), net. Other income (expense), net for the three months ended June 30, 2020 and 2019, was $18.2 million of income and $(5.9) million of expense, respectively. Other income for the three months ended June 30, 2020 primarily consisted of net unrealized gains recognized during the period on our investment in VBI. Other expense for the three months ended June 30, 2019 primarily consisted of net unrealized losses recognized during the period on our equity securities.

Income tax provision. Our income tax provision for the three months ended June 30, 2020 and 2019 was $6.0 million and $1.1 million, respectively, and reflects quarterly results using our expected effective tax rate. For the three months ended June 30, 2020, the tax rate differed from the U.S. federal statutory rate of 21% primarily due to the relative mix in earnings and losses in the U.S. versus foreign tax jurisdictions, the impact of certain discrete tax events and operating results in tax jurisdictions which do not result in a tax benefit.

Loss from investments in investees. We have made investments in certain early stage companies that we perceive to have valuable proprietary technology and significant potential to create value for us as a shareholder or member. We account for these investments under the equity method of accounting, resulting in the recording of our proportionate share of their losses until our share of their loss exceeds our investment. Until the investees' technologies are commercialized, if ever, we anticipate they will report net losses. Loss from investments in investees was $0.2 million and $0.3 million for the three months ended June 30, 2020 and 2019, respectively.

FOR THE SIX MONTHS ENDED JUNE 30, 2020 AND 2019

Our consolidated income (loss) from operations for the six months ended June 30, 2020 and 2019 is as follows:

(In thousands)	For the six months ended June 30, 2020	2019	Change
Revenues:			
Revenue from services	$ 421,811	$ 357,349	$ 64,462
Revenue from products	60,430	53,981	6,449
Revenue from transfer of intellectual property and other	30,433	37,490	(7,057)
Total revenues	512,674	448,820	63,854
Costs and expenses:			
Cost of revenue	302,909	288,281	14,628
Selling, general and administrative	153,852	183,633	(29,781)
Research and development	39,369	64,816	(25,447)
Contingent Consideration	251	1,031	(780)
Amortization of intangible assets	29,874	32,981	(3,107)
Asset impairment charges	—	655	(655)
Total costs and expenses	526,255	571,397	(45,142)
Income (loss) from operations	(13,581)	(122,577)	108,996

Diagnostics

(In thousands)	For the six months ended June 30, 2020	2019	Change
Revenues			
Revenue from services	$ 421,811	$ 357,349	$ 64,462
Revenue from transfer of intellectual property and other	6,194	—	6,194
Total revenues	428,005	357,349	70,656
Costs and expenses:			
Cost of revenue	267,689	259,715	7,974
Selling, general and administrative	110,436	129,787	(19,351)
Research and development	7,178	7,251	(73)
Contingent Consideration	68	583	(515)
Amortization of intangible assets	19,831	21,595	(1,764)
Total costs and expenses	405,202	418,931	(13,729)
Income (loss) from operations	22,803	(61,582)	84,385

Revenue. Revenue from services for the six months ended June 30, 2020 increased by approximately $64.5 million compared to the six months ended June 30, 2019, primarily due to the positive impacts of increased COVID-19 testing volumes. Revenue from services further benefited from the successful appeal of previously denied Medicare claims for the *4Kscore* test resulting in approximately $10.9 million of incremental revenue. In addition, revenue from the transfer of intellectual property and other for the three months ended June 30, 2020 included a $6.2 million grant received by BioReference from the CARES Act. BioReference performed 331.6 thousand serology antibody tests and 2.3 million diagnostic molecular tests for COVID-19 during the six months ended June 30, 2020, which represented 13.6% of its total volume for that period. Additionally, BioReference experienced $3.4 million of higher net reimbursement on our genomic testing due to a test mix shift of increased whole exome sequencing. This was partially offset by the negative impacts of:

- Reduced clinical test volumes and genomics test volumes at BioReference of $78.3 million and $14.8 million from reduced clinical test volumes and genomics test volumes, respectively, exclusive of COVID-19 test volumes. The decline in volume reflects the negative impacts from the COVID-19 pandemic, principally from referring physician office closures and stay-at-home guidance throughout states in which we predominately operate, and declines in routine clinical and genomics testing, which declined 28.8% versus the Company's normal daily levels.

- $0.5 million from lower net reimbursement on our clinical testing resulting from the latest negative impact of the PAMA price reduction that went into effective January 1, 2020 and were partially offset by improved operational procedures and a flattening of our denial rate

Estimated collection amounts are subject to the complexities and ambiguities of billing, reimbursement regulations and claims processing, as well as considerations unique to Medicare and Medicaid programs, and require us to consider the potential for retroactive adjustments when estimating variable consideration in the recognition of revenue in the period the related services are rendered. For the six months ended June 30, 2020 and 2019, revenue increases (reductions) due to changes in estimates of implicit price concessions for performance obligations satisfied in prior periods of $0.2 million and $(14.3) million, respectively, were recognized.

The composition of Revenue from services by payor for the six months ended June 30, 2020 and 2019 was as follows:

	Six months ended June 30,	
(In thousands)	2020	2019
Healthcare insurers	$ 183,232	$ 211,207
Government payers	42,784	59,037
Client payers	180,191	76,559
Patients	15,604	10,546
Total	$ 421,811	$ 357,349

Client payers include cities and states for which BioReference provides COVID-19 testing services.

Cost of revenue. Cost of revenue for the six months ended June 30, 2020 increased $8.0 million compared to the six months ended June 30, 2019. Cost of revenue increased $47.2 million due to labor and material costs to produce COVID-19 testing volumes during the six months ended June 30, 2020, which was partially offset by an overall reduction in other clinical and genomic test volumes, and to cost reduction initiatives, which resulted in per patient encounter efficiency gains at BioReference.

Selling, general and administrative expenses. Selling, general and administrative expenses for the six months ended June 30, 2020 and 2019 were $110.4 million and $129.8 million, respectively. The decrease in selling, general and administrative expenses in our diagnostics segment was primarily due to expenses of $12.6 million incurred during the six months ended June 30, 2019 in connection with certain legal matters, and to decreased expenses at BioReference due to the enactment of cost reduction initiatives.

Research and development expenses. The following table summarizes the components of our research and development expenses:

Research and Development Expenses	Six months ended June 30,	
	2020	2019
External expenses:		
PMA studies	$ 111	$ 171
Research and development employee-related expenses	4,373	3,533
Other internal research and development expenses	2,694	3,547
Total research and development expenses	$ 7,178	$ 7,251

Research and development for the diagnostic segment relates to the development of testing services for our clinical and genomics testing at BioReference and the development of the Claros Analyzer, a diagnostic instrument system to provide rapid, high performance blood test results in the point-of-care setting.Research and development expenses for the six months ended June 30, 2020 was consistent with the comparative period in 2019.

Contingent consideration. Contingent consideration for the six months ended June 30, 2020 and 2019 was $68 thousand and $583 thousand of expense, respectively. Contingent consideration for the six months ended June 30, 2020 and 2019 was attributable to changes in assumptions regarding the timing of achievement of future milestones for OPKO Diagnostics in both

periods, and potential amounts payable to former stockholders of OPKO Diagnostics in connection therewith pursuant to our acquisition agreement in October 2011.

Amortization of intangible assets. Amortization of intangible assets was $19.8 million and $21.6 million, respectively, for the six months ended June 30, 2020 and 2019. Amortization expense reflects the amortization of acquired intangible assets with defined useful lives.

Pharmaceuticals

(In thousands)	For the six months ended June 30, 2020	2019	Change
Revenues:			
Revenue from products	$ 60,430	$ 53,981	$ 6,449
Revenue from transfer of intellectual property and other	24,239	37,490	(13,251)
Total revenues	84,669	91,471	(6,802)
Costs and expenses:			
Cost of revenue	35,292	28,713	6,579
Selling, general and administrative	26,670	30,233	(3,563)
Research and development	32,602	58,069	(25,467)
Contingent Consideration	183	448	(265)
Amortization of intangible assets	10,043	11,386	(1,343)
Asset impairment charges	—	655	(655)
Total costs and expenses	104,790	129,504	(24,714)
Loss from operations	(20,121)	(38,033)	17,912

Revenue. The increase in revenue from products for the six months ended June 30, 2020 compared to the six months ended June 30, 2019 was primarily attributable to an increase in sales of *Rayaldee*, which were $18.6 million for the six months ended June 30, 2020, compared to $11.5 million for the comparative period in 2019. Revenue from transfer of intellectual property for the six months ended June 30, 2020 and 2019 principally reflected $22.7 million and $35.6 million, respectively, of revenue related to the Pfizer Transaction.

Cost of revenue. Cost of revenue for the three months ended June 30, 2020 increased $6.6 million compared to the six months ended June 30, 2019. Cost of product revenue increased primarily due to an increase in sales of *Rayaldee* in 2020 and changes in product mix during the period.

Selling, general and administrative expenses. Selling, general and administrative expenses for the six months ended June 30, 2020 and 2019 were $26.7 million and $30.2 million, respectively. The decrease in selling, general and administrative expenses was primarily due to decreased expenses at our pharmaceutical subsidiaries and a decrease in equity-based compensation expense.

Research and development expenses. Research and development expenses for the six months ended June 30, 2020 and 2019 were $32.6 million and $58.1 million, respectively. Research and development expenses include external and internal expenses, partially offset by third-party grants and funding arising from collaboration agreements. External expenses include clinical and non-clinical activities performed by contract research organizations, lab services, purchases of drug and diagnostic product materials and manufacturing development costs. We track external research and development expenses by individual program for phase 3 clinical trials for drug approval and premarket approval (“PMA”) for diagnostics tests, if any. Internal expenses include employee-related expenses such as salaries, benefits and equity-based compensation expense. Other internal research and development expenses are incurred to support overall research and development activities and include expenses related to general overhead and facilities.

The following table summarizes the components of our research and development expenses:

Research and Development Expenses	For the six months ended June 30,	
	2020	2019
External expenses:		
Manufacturing expense for biological products	$ 2,728	$ 20,111
Phase III studies	5,339	9,580
Post-marketing studies	1,122	603
Earlier-stage programs	7,568	13,159
Research and development employee-related expenses	11,268	11,021
Other internal research and development expenses	4,577	3,972
Third-party grants and funding from collaboration agreements	—	(377)
Total research and development expenses	$ 32,602	$ 58,069

The decrease in research and development expenses for the six months ended June 30, 2020 was primarily due to a decrease in research and development expenses related to hGH-CTP, a once-weekly human growth hormone injection for which we have partnered with Pfizer and successfully completed a phase 3 study in August 2019. Ongoing expenses on the hGH-CTP program support Open Label Extension studies that will continue until market launch in most countries, as well as the preparation of applications for marketing approvals. Research and development expenses for the pharmaceutical segment for the six months ended June 30, 2020 and 2019 included equity-based compensation expense of $0.9 million and $1.1 million, respectively.

Contingent consideration. Contingent consideration for the six months ended June 30, 2020 and 2019 was $0.2 million and $0.4 million of expense, respectively. Contingent consideration for the six months ended June 30, 2020 and 2019 was primarily attributable to changes in assumptions regarding the timing of achievement of future milestones for OPKO Renal, and potential amounts payable to former stockholders of OPKO Renal in connection therewith, pursuant to our acquisition agreement in March 2013.

Amortization of intangible assets. Amortization of intangible assets was $10.0 million and $11.4 million, respectively, for the six months ended June 30, 2020 and 2019. Amortization expense reflects the amortization of acquired intangible assets with defined useful lives. Our indefinite lived IPR&D assets will not be amortized until the underlying development programs are completed. Upon obtaining regulatory approval by the U.S. FDA, the IPR&D assets will be accounted for as a finite-lived intangible asset and amortized on a straight-line basis over its estimated useful life.

Asset impairment charges. Asset impairment charges were $0.7 million for the six months ended June 30, 2019 and is related to an impairment charge to write down our intangible assets at FineTech down to their estimated fair value.

Corporate

(In thousands)	For the six months ended June 30, 2020	2019	Change
Cost of revenue	$ (72)	$ (148)	76
Selling, general and administrative	16,746	23,614	(6,868)
Research and development	(411)	(504)	93
Total costs and expenses	16,263	22,962	(6,699)
Loss from operations	(16,263)	(22,962)	6,699

Operating loss for our unallocated corporate operations for the six months ended June 30, 2020 and 2019 was $16.3 million and $23.0 million, respectively, and principally reflects general and administrative expenses incurred in connection with our corporate operations. The decrease in operating loss for the six months ended June 30, 2020 was primarily attributable to a decrease in legal fees incurred for the six months ended June 30, 2020, compared to the six months ended June 30, 2019.

Other

Interest income. Interest income for the six months ended June 30, 2020 and 2019 was not significant as our cash investment strategy emphasizes the security of the principal invested and fulfillment of liquidity needs.

Interest expense. Interest expense for the six months ended June 30, 2020 and 2019 was $11.0 million and $10.3 million, respectively. Interest expense was principally related to interest incurred on the 2025 Notes, the 2023 Convertible Notes, the 2033 Senior Notes, and BioReference's outstanding debt under its credit facility.

Fair value changes of derivative instruments, net. Fair value changes of derivative instruments, net for the six months ended June 30, 2020 and 2019, was $0.6 million and $27 thousand of income, respectively. Derivative income for the six months ended June 30, 2020, principally related to the change in fair value on foreign currency forward exchange contracts at OPKO Chile.

Other income (expense), net. Other income (expense), net for the six months ended June 30, 2020 and 2019, was $5.9 million of income and $(4.9) million of expense, respectively. Other income for the six months ended June 30, 2020 primarily consisted of net unrealized gain recognized during the period on our investment in VBI, offset by net unrealized loss recognized during the period on our investment in Eloxx. Other expense for the six months ended June 30, 2019 primarily consisted of net unrealized losses recognized during the period on our equity securities.

Income tax provision. Our income tax provision for the six months ended June 30, 2020 and 2019 was $7.2 million and $1.9 million, respectively, and reflects quarterly results using our expected effective tax rate. For the six months ended June 30, 2020, the tax rate differed from the U.S. federal statutory rate of 21% primarily due to the relative mix in earnings and losses in the U.S. versus foreign tax jurisdictions, the impact of certain discrete tax events and operating results in tax jurisdictions which do not result in a tax benefit.

Loss from investments in investees. We have made investments in certain early stage companies that we perceive to have valuable proprietary technology and significant potential to create value for us as a shareholder or member. We account for these investments under the equity method of accounting, resulting in the recording of our proportionate share of their losses until our share of their loss exceeds our investment. Until the investees' technologies are commercialized, if ever, we anticipate they will report net losses. Loss from investments in investees was $0.3 million and $2.1 million for the six months ended June 30, 2020 and 2019, respectively.

LIQUIDITY AND CAPITAL RESOURCES

At June 30, 2020, we had cash and cash equivalents of approximately $21.6 million. Cash used in operations of $57.8 million for the six months ended June 30, 2020 principally reflects general and administrative expenses in connection with our corporate operations and research and development activities. Cash used in investing activities for the six months ended June 30, 2020 primarily reflects capital expenditures of $17.1 million. Cash provided by financing activities primarily reflects net borrowings on our lines of credit. We have not generated sustained positive cash flow sufficient to offset our operating and other expenses, and our primary sources of cash have been from the public and private placement of equity, the issuance of the 2033 Senior Notes, 2023 Convertible Notes and 2025 Notes and credit facilities available to us. However, as a result of the significant increase in testing volumes resulting from the COVID-19 pandemic, and if our routine clinical and genomic testing volumes continue to trend towards normalization with prior periods, we anticipate generating cash from operations. We are unable to predict how long the demand will continue for COVID-19 related testing or or whether further restrictions will be placed on elective procedures or stay at home orders will be reinstated and accordingly, the sustainability of the cash flow is uncertain.

On February 25, 2020, we entered into a credit agreement with an affiliate of Dr. Frost, pursuant to which the lender committed to provide us with an unsecured line of credit in the amount of $100 million. Borrowings under this line of credit will bear interest at a rate of 11% per annum and may be repaid and reborrowed at any time. The credit agreement includes various customary remedies for the lender following an event of default, including the acceleration of repayment of outstanding amounts under line of credit. The line of credit matures on February 25, 2025. As of June 30, 2020, no funds were borrowed under this line of credit.

On October 29, 2019, we issued 50 million shares of our Common Stock at a price of $1.50 per share in an underwritten public offering, resulting in net proceeds to the Company of approximately $70 million, after deducting underwriting commissions and offering expenses. In November 2019, pursuant to an option the Company granted the underwriters, we issued an additional 4,227,749 shares of Common Stock at $1.50 per share, resulting in proceeds of approximately $6 million after deducting underwriting commissions.

In February 2019, we issued $200.0 million aggregate principal amount of the 2025 Notes in an underwritten public offering. The 2025 Notes bear interest at a rate of 4.50% per year, payable semiannually in arrears on February 15 and August 15 of each year. The notes mature on February 15, 2025, unless earlier repurchased, redeemed or converted.

Holders may convert their 2025 Notes into shares of Common Stock at their option at any time prior to the close of business on the business day immediately preceding November 15, 2024 only under the following circumstances: (1) during any calendar quarter commencing after the calendar quarter ended on March 31, 2019 (and only during such calendar quarter), if the last reported sale price of our Common Stock for at least 20 trading days (whether or not consecutive) during a period of 30 consecutive trading days ending on the last trading day of the immediately preceding calendar quarter is greater than or equal to 130% of the conversion price on each applicable trading day; (2) during the five business day period after any five consecutive trading day period (the “measurement period”) in which the trading price per $1,000 principal amount of 2025 Notes for each trading day of the measurement period was less than 98% of the product of the last reported sale price of our Common Stock and the conversion rate on each such trading day; (3) if we call any or all of the 2025 Notes for redemption, at any time prior to the close of business on the scheduled trading day immediately preceding the redemption date; or (4) upon the occurrence of specified corporate events set forth in the indenture governing the 2025 Notes. On or after November 15, 2024, until the close of business on the business day immediately preceding the maturity date, holders of the 2025 Notes may convert their notes at any time, regardless of the foregoing conditions. Upon conversion, we will pay or deliver, as the case may be, cash, shares of our Common Stock, or a combination of cash and shares of our Common Stock, at our election.

The current conversion rate for the 2025 Notes is 236.7424 shares of Common Stock per $1,000 principal amount of 2025 Notes (equivalent to a conversion price of approximately $4.22 per share of Common Stock). The conversion rate for the 2025 Notes is subject to adjustment in certain events but will not be adjusted for any accrued and unpaid interest.

On November 8, 2018, we entered into a credit agreement with an affiliate of Dr. Frost, pursuant to which the lender committed to provide us with an unsecured line of credit in the aggregate principal amount of $60 million. The credit agreement was terminated on or around February 20, 2019 and we repaid the $28.8 million outstanding from the proceeds of the 2025 Notes offering. Borrowings under the line of credit bore interest at a rate of 10% per annum.

On February 1, 2019, holders tendered to us approximately $28.8 million aggregate principal amount of 2033 Senior Notes pursuant to such holders’ option to require us to repurchase the 2033 Senior Notes as set forth in the indenture, following which repurchase only $3.0 million aggregate principal amount of the 2033 Senior Notes remained outstanding. Holders of the remaining $3.0 million principal amount of the 2033 Senior Notes may require us to repurchase such notes for 100% of their

principal amount, plus accrued and unpaid interest, on February 1, 2023, on February 1, 2028, or following the occurrence of a fundamental change as defined in the indenture governing the 2033 Senior Notes.

As of June 30, 2020, the total commitments under our Credit Agreement (as defined below) with CB and our lines of credit with financial institutions in Chile and Spain were $93.1 million, of which $63.5 million was drawn as of June 30, 2020. At June 30, 2020, the weighted average interest rate on these lines of credit was approximately 4.2%. These lines of credit are short-term and are used primarily as a source of working capital. The highest aggregate principal balance at any time outstanding during the six months ended June 30, 2020 was $63.5 million. We intend to continue to draw under these lines of credit as needed. There is no assurance that these lines of credit or other funding sources will be available to us on acceptable terms, or at all, in the future.

On November 5, 2015, BioReference and certain of its subsidiaries entered into a credit agreement with JPMorgan Chase Bank, N.A. ("CB"), as lender and administrative agent, as amended (the "Credit Agreement"). The Credit Agreement provides for a $75.0 million secured revolving credit facility and includes a $20.0 million sub-facility for swingline loans and a $20.0 million sub-facility for the issuance of letters of credit. The Credit Agreement matures on November 5, 2021 and is guaranteed by all of BioReference's domestic subsidiaries. The Credit Agreement is also secured by substantially all assets of BioReference and its domestic subsidiaries, as well as a non-recourse pledge by us of our equity interest in BioReference. Availability under the Credit Agreement is based on a borrowing base comprised of eligible accounts receivables of BioReference and certain of its subsidiaries, as specified therein. As of June 30, 2020, $15.3 million remained available for borrowing under the Credit Agreement.

In February 2018, in a transaction exempt from registration under the Securities Act, we issued the 2023 Convertible Notes in the aggregate principal amount of $55.0 million. The 2023 Convertible Notes mature five years from the date of issuance. Each holder of a 2023 Convertible Note has the option, from time to time, to convert all or any portion of the outstanding principal balance of such 2023 Convertible Note, together with accrued and unpaid interest thereon, into shares of our Common Stock, par value $0.01 per share, at a conversion price of $5.00 per share of Common Stock. We may redeem all or any part of the then issued and outstanding 2023 Convertible Notes, together with accrued and unpaid interest thereon, pro ratably among the holders, upon no fewer than 30 days, and no more than 60 days, notice to the holders. The 2023 Convertible Notes contain customary events of default and representations and warranties of OPKO.

On October 12, 2017, EirGen, our wholly-owned subsidiary, and JT entered into the JT Agreement granting JT the exclusive rights for the development and commercialization of *Rayaldee* in Japan. The license grant to JT covers the therapeutic and preventative use of *Rayaldee* for (i) SHPT in non-dialysis and dialysis patients with CKD, (ii) rickets, and (iii) osteomalacia, as well as such additional indications as may be added to the scope of the license subject to the terms of the JT Agreement. In connection with the transaction, OPKO received an initial upfront payment of $6 million, and OPKO received another $6 million upon the initiation of OPKO's phase 2 study for *Rayaldee* in dialysis patients in the U.S. in September 2018. OPKO is also eligible to receive up to an additional aggregate amount of $31 million upon the achievement of certain regulatory and development milestones by JT for *Rayaldee* in the JT Territory, and $75 million upon the achievement of certain sales based milestones by JT in the JT Territory. OPKO will also receive tiered, double digit royalty payments at rates ranging from low double digits to mid-teens on sales of *Rayaldee* within the JT Territory. JT will, at its sole cost and expense, be responsible for performing all development activities necessary to obtain all regulatory approvals for *Rayaldee* in Japan and for all commercial activities pertaining to *Rayaldee* in Japan.

In May 2016, EirGen, our wholly-owned subsidiary, partnered with VFMCRP through a Development and License Agreement (the "VFMCRP Agreement") for the development and commercialization of *Rayaldee* in Europe, Canada, Mexico, Australia, South Korea and certain other international markets (the "VFMCRP Territory"). The license to VFMCRP potentially covers all therapeutic and prophylactic uses of the product in human patients, provided that initially the license is for the use of the product for the treatment or prevention of SHPT related to patients with CKD and vitamin D insufficiency/deficiency ("VFMCRP Initial Indication"). Effective May 5, 2020, we entered into an amendment to the VFMCRP Agreement (the "VFMCRP Amendment"), pursuant to which the parties agreed to exclude Mexico, South Korea, the Middle East and all of the countries of Africa from the VFMCRP Territory. In addition, the parties agreed to certain amendments to the milestone structure and to reduce minimum royalties payable.

We have received non-refundable and non-creditable payments of $52 million to date and are eligible to receive up to an additional $230 million pursuant to the terms of the VFMCRP Amendment upon the achievement of certain regulatory and sales-based milestones tied to sales and reimbursement levels. In addition, we are eligible to receive tiered royalties on sales of the product at percentage rates that range from the mid-teens to the mid-twenties or a minimum royalty, whichever is greater, upon commencement of sales of the product.

As part of the arrangement, the companies will share responsibility for the conduct of trials specified within an agreed-upon development plan, with each company leading certain activities within the plan. For the initial development plan, the companies have agreed to certain cost sharing arrangements. VFMCRP will be responsible for all other development costs that VFMCRP considers necessary to develop the product for the VFMCRP Initial Indication in the VFMCRP Territory except as otherwise provided in the VFMCRP Agreement. EirGen also granted to VFMCRP an option to acquire an exclusive license to use, import, offer for sale, sell, distribute and commercialize the product in the U.S. for treatment of SHPT in dialysis patients with stage 5 CKD and vitamin D insufficiency (the "Dialysis Indication"). Upon exercise of the Option, VFMCRP will reimburse EirGen for all of the development costs incurred by EirGen with respect to the product for the Dialysis Indication in the U.S. VFMCRP would also pay EirGen up to an additional aggregate amount of $555 million upon the achievement of certain milestones and would be obligated to pay royalties on sales of the product at percentage rates that range from the mid-teens to the mid-twenties or a minimum royalty, whichever is greater, upon commencement of sales of the product.

In June 2020, we announced that the Japan phase 3 clinical trial met its primary and secondary objectives, and demonstrated that the efficacy and safety of Somatrogon administered weekly was comparable to GENOTROPIN® for injection administered once-daily as measured by annual height velocity after 12 months of treatment in treatment-naïve Japanese pre-pubertal children with GHD. In October 2019, we and Pfizer announced that the global phase 3 trial evaluating Somatrogon (hGH-CTP) dosed once-weekly in prepubertal children with GHD met its primary endpoint of non-inferiority to daily Genotropin® (somatropin) for injection, as measured by annual height velocity at 12 months.

In 2014, Pfizer and OPKO entered into a worldwide agreement for the development and commercialization of our long-acting hGH-CTP for the treatment of GHD in adults and children, as well as for the treatment of growth failure in children born small for gestational age. Under the terms of the agreements with Pfizer, we received non-refundable and non-creditable upfront payments of $295 million in 2015 and are eligible to receive up to an additional $275 million upon the achievement of certain regulatory milestones. Pfizer received the exclusive license to commercialize hGH-CTP worldwide. In addition, we are eligible to receive initial tiered royalty payments associated with the commercialization of hGH-CTP for Adult GHD with percentage rates ranging from the high teens to mid-twenties. Upon the launch of hGH-CTP for Pediatric GHD in certain major markets, the royalties will transition to regional, tiered gross profit sharing for both hGH-CTP and Pfizer's Genotropin®.

In May 2020, we entered into Amended and Restated Development and Commercialization License Agreement (the "Restated Agreement") with Pfizer, effective January 1, 2020, pursuant to which the parties agreed to share all costs for Manufacturing Activities, as defined in the Restated Agreement, for developing a licensed product for the three indications included in the Agreement.

In connection with our acquisitions of CURNA, OPKO Diagnostics and OPKO Renal, we agreed to pay future consideration to the sellers upon the achievement of certain events, including up to an additional $19.1 million in shares of our Common Stock to the former stockholders of OPKO Diagnostics upon and subject to the achievement of certain milestones; and up to an additional $125.0 million in either shares of our Common Stock or cash, at our option subject to the achievement of certain milestones, to the former shareholders of OPKO Renal.

We believe that the cash and cash equivalents on hand at June 30, 2020, cash from operations and the amounts available to be borrowed under our lines of credit are sufficient to meet our anticipated cash requirements for operations and debt service beyond the next 12 months. We based this estimate on assumptions that may prove to be wrong or are subject to change, and we may be required to use our available cash resources sooner than we currently expect. If we acquire additional assets or companies, accelerate our product development programs or initiate additional clinical trials, we will need additional funds. Our future cash requirements, and the timing of those requirements, will depend on a number of factors, including the impact of the COVID-19 pandemic on our business, the approval and success of our products in development, particularly our long acting hGH-CTP for which we expect to submit for approval in the U.S. this year and in Europe and Japan thereafter, the commercial success of *Rayaldee*, including the launch of *Rayaldee* by Vifor expected later this year, BioReference's financial performance, possible acquisitions, the continued progress of research and development of our product candidates, the timing and outcome of clinical trials and regulatory approvals, the costs involved in preparing, filing, prosecuting, maintaining, defending, and enforcing patent claims and other intellectual property rights, the status of competitive products, the availability of financing, our success in developing markets for our product candidates and results of government investigations, payor claims, and legal proceedings that may arise, including, without limitation class action and derivative litigation to which we are subject, and our ability to obtain insurance coverage for such claims. We have not generated sustained positive cash flow and if we are not able to secure additional funding when needed, we may have to delay, reduce the scope of, or eliminate one or more of our clinical trials or research and development programs or possible acquisitions or reduce our marketing or sales efforts or cease operations.

Additionally, the rapid development and fluidity of the COVID-19 pandemic makes it very difficult to predict its ultimate impact on our business, results of operations and liquidity. The pandemic presents a significant uncertainty that could

materially and adversely affect our results of operations, financial condition and cash flows, including due to a continued negative impact on non-COVID-related diagnostics testing services provided by BioReference in our diagnostics segment. Further, deteriorating economic conditions globally have resulted in a challenging capital raising environment, which could materially limit our access to capital, whether through the issuance and sale of our common stock, debt securities or otherwise, as well as through bank facilities and lines of credit. Events resulting from the effects of COVID-19 could negatively impact our ability to comply with certain covenants in the Credit Agreement or require that we pursue alternative financing. We can provide no assurance that any such alternative financing, if required, could be obtained on acceptable terms or at all. The combination of potential disruptions to our business resulting from COVID-19 together with and volatile credit and capital markets could adversely impact our future liquidity, which could have an adverse effect on our business and results of operations. We will continue to monitor and assess the impact COVID-19 may have on our business and financial results.

The following table provides information as of June 30, 2020, with respect to the amounts and timing of our known contractual obligation payments due by period.

Contractual obligations (In thousands)	Remaining six months ending December 31, 2020	2021	2022	2023	2024	Thereafter	Total
Open purchase orders	$ 153,623	$ 506	$ 35	$ —	$ —	$ —	$ 154,164
Operating leases	6,392	7,137	5,938	5,001	3,735	10,856	39,059
Finance leases	1,298	2,121	1,147	581	247	—	5,394
2033 Senior Notes, 2025 and 2023 Convertible Notes	—	—	—	—	3,050	207,017	210,067
Deferred payments	5,625	7,500	2,994	—	—	—	16,119
Mortgages and other debts payable	1,209	944	739	547	458	86	3,983
Lines of credit	12,048	51,489	—	—	—	—	63,537
Interest commitments	340	300	283	14,016	259	41,389	56,587
Total	$ 180,535	$ 69,997	$ 11,136	$ 20,145	$ 7,749	$ 259,348	$ 548,910

The preceding table does not include information where the amounts of the obligations are not currently determinable, including the following:

- Contractual obligations in connection with clinical trials, which span over two years, and that depend on patient enrollment. The total amount of expenditures is dependent on the actual number of patients enrolled and as such, the contracts do not specify the maximum amount we may owe.

- Product license agreements effective during the lesser of 15 years or patent expiration whereby payments and amounts are determined by applying a royalty rate on uncapped future sales.

- Contingent consideration that includes payments upon achievement of certain milestones including meeting development milestones such as the completion of successful clinical trials, NDA approvals by the FDA and revenue milestones upon the achievement of certain revenue targets all of which are anticipated to be paid within the next seven years and are payable in either shares of our Common Stock or cash, at our option, and that may aggregate up to $149.1 million.

CRITICAL ACCOUNTING POLICIES AND ESTIMATES

There were no material changes to our critical accounting policies and estimates described in our Annual Report on Form 10-K for the fiscal year ended December 31, 2019, that have a material impact to our Condensed Consolidated Financial Statements and related notes.

RECENT ACCOUNTING PRONOUNCEMENTS

Recently adopted accounting pronouncements.

In June 2016, the FASB issued ASU No. 2016-13, "Financial Instruments - Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments," which amends the impairment model by requiring entities to use a forward-looking approach based on expected losses rather than incurred losses to estimate credit losses on certain types of financial instruments, including trade receivables. This may result in the earlier recognition of allowances for losses. The ASU is effective for public entities for fiscal years beginning after December 15, 2019, with early adoption permitted. The adoption of ASU 2016-13 on January 1, 2020, did not have a significant impact on our Condensed Consolidated Financial Statements.

Item 3. Quantitative and Qualitative Disclosures About Market Risk

In the normal course of doing business, we are exposed to the risks associated with foreign currency exchange rates and changes in interest rates.

Foreign Currency Exchange Rate Risk – We operate globally and, as such, we are subject to foreign exchange risk in our commercial operations as portions of our revenues are exposed to changes in foreign currency exchange rates, primarily the Chilean Peso, the Mexican Peso, the Euro and the New Israeli Shekel.

Although we do not speculate in the foreign exchange market, we may from time to time manage exposures that arise in the normal course of business related to fluctuations in foreign currency exchange rates by entering into offsetting positions through the use of foreign exchange forward contracts. Certain firmly committed transactions may be hedged with foreign exchange forward contracts. As exchange rates change, gains and losses on the exposed transactions are partially offset by gains and losses related to the hedging contracts. Both the exposed transactions and the hedging contracts are translated and fair valued, respectively, at current spot rates, with gains and losses included in earnings.

Our derivative activities, which consist of foreign exchange forward contracts, are initiated to economically hedge forecasted cash flows that are exposed to foreign currency risk. The foreign exchange forward contracts generally require us to exchange local currencies for foreign currencies based on pre-established exchange rates at the contracts' maturity dates. As exchange rates change, gains and losses on these contracts are generated based on the change in the exchange rates that are recognized in the Condensed Consolidated Statements of Operations and offset the impact of the change in exchange rates on the foreign currency cash flows that are hedged. If the counterparties to the exchange contracts do not fulfill their obligations to deliver the contracted currencies, we could be at risk for currency related fluctuations. Our foreign exchange forward contracts primarily hedge exchange rates on the Chilean Peso to the U.S. dollar. If Chilean Pesos were to strengthen or weaken in relation to the U.S. dollar, our loss or gain on hedged foreign currency cash-flows would be offset by the derivative contracts, with a net effect of zero.

We do not engage in trading market risk sensitive instruments or purchasing hedging instruments or "other than trading" instruments that are likely to expose us to significant market risk, whether interest rate, foreign currency exchange, commodity price, or equity price risk.

Interest Rate Risk – Our exposure to interest rate risk relates to our cash and investments and to our borrowings. We generally maintain an investment portfolio of money market funds and marketable securities. The securities in our investment portfolio are not leveraged, and are, due to their very short-term nature, subject to minimal interest rate risk. We currently do not hedge interest rate exposure. Because of the short-term maturities of our investments, we do not believe that a change in market interest rates would have a significant negative impact on the value of our investment portfolio except for reduced income in a low interest rate environment.

At June 30, 2020, we had cash and cash equivalents of $21.6 million. The weighted average interest rate related to our cash and cash equivalents for the six months ended June 30, 2020 was less than 1%. As of June 30, 2020, the principal outstanding balances under BioReference's Credit Agreement with CB and our Chilean and Spanish lines of credit was $63.5 million in the aggregate at a weighted average interest rate of approximately 4.2%.

Our $3.0 million aggregate principal amount of our 2033 Senior Notes has a fixed interest rate of 3%, our $55.0 million aggregate principal amount of our 2023 Convertible Notes has a fixed interest rate of 5%, and our $200.0 million aggregate principal amount of the 2025 Notes has a fixed interest rate of 4.50%, and therefore are not subject to fluctuations in market interest rates.

The primary objective of our investment activities is to preserve principal while at the same time maximizing yields without significantly increasing risk. To achieve this objective, we may invest our excess cash in debt instruments of the U.S. Government and its agencies, bank obligations, repurchase agreements and high-quality corporate issuers, and money market funds that invest in such debt instruments, and, by policy, restrict our exposure to any single corporate issuer by imposing concentration limits. To minimize the exposure due to adverse shifts in interest rates, we maintain investments at an average maturity of generally less than three months.

Item 4. Controls and Procedures

Disclosure Controls and Procedures

Our management, with the participation of our Chief Executive Officer and our Chief Financial Officer, have evaluated the effectiveness of the Company's disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934, as amended (the "Exchange Act")) as of the end of the period covered by this Quarterly Report on Form 10-Q. Our disclosure controls and procedures are designed to provide reasonable assurance that information required to be disclosed by us in the reports that we file or submit under the Exchange Act is recorded, processed, summarized and reported, within the time periods specified in the rules and forms of the Securities and Exchange Commission. Disclosure controls and procedures include, without limitation, controls and procedures designed to ensure that information required to be disclosed by a company in the reports that it files or submits under the Exchange Act is accumulated and communicated to the company's management, including its principal executive and principal financial officers, as appropriate to allow timely decisions regarding required disclosure. Based on this evaluation, management concluded that our disclosure controls and procedures were effective as of June 30, 2020.

Changes to the Company's Internal Control Over Financial Reporting

There have been no changes to the Company's internal control over financial reporting that occurred during the calendar quarter covered by this Quarterly Report on Form 10-Q that have materially affected, or are reasonably likely to materially affect, the Company's internal control over financial reporting.

PART II. OTHER INFORMATION

Item 1. Legal Proceedings

We are, from time to time, party to various legal proceedings arising out of our business. During the reporting period, covered by this Quarterly Report on Form 10-Q, except as set forth below, there have been no material changes to the description of legal proceedings set forth in our Annual Report on Form 10-K for the year ended December 31, 2019. The following should be read in conjunction with the information provided in Part I, Item 3 of such Annual Report.

On June 26, 2020, The Amitim Funds, the lead plaintiff in the class action lawsuit against the Company and Dr. Frost, filed a Stipulation of Settlement (the "Stipulation") in the Southern District of Florida of behalf of itself and the remainder of the class, which, if approved, will provide for the settlement of and release of the class action claims against the Company and Dr. Frost that were previously disclosed in the Annual Report for $16.5 million. We reached agreement with our insurance carriers with respect to claims made in the class action and derivative lawsuits and we expect insurance coverage for a significant portion of the settlement amounts. The lead plaintiff also filed a Motion for Preliminary Approval of Settlement and a Notice of Dismissal on June 29, 2020. The settlement remains subject to court approval.

See Note 11 to the interim unaudited condensed consolidated financial statements contained in this Quarterly Report on Form 10-Q for information regarding the status of other legal proceedings involving the Company.

Item 1A. Risk Factors

Except as set forth in this Item 1A, there have been no material changes to our risk factors as previously disclosed in our Annual Report on Form 10-K for the year ended December 31, 2019.

Our business has been, and may continue to be, materially adversely affected by the recent coronavirus disease 2019(COVID-19) outbreak.

The outbreak of the coronavirus disease 2019 (COVID-19) has evolved into a global pandemic. The novel coronavirus originating in Wuhan, China has spread to many regions of the world, including the U.S. and Europe. The extent to which this coronavirus impacts our business and operating results will depend on future developments that are highly uncertain and cannot be accurately predicted, including new information that may emerge concerning the virus and the actions to contain the spread of or to detect, prevent, or treat COVID-19, among others.

Severe respiratory symptoms, infections, deaths, and widespread quarantine measures related to the pandemic have disrupted healthcare delivery in key markets in which our laboratory business currently operates, including New York, New Jersey, Texas, Florida, and California. Since late March 2020, the Company experienced, and may continue to experience, a material decline in testing volumes due to the COVID-19 pandemic. In addition to declining volumes, it is possible that, as a result of the COVID-19 pandemic, we may experience supply chain disruptions, including shortages, delays and price increases in testing equipment and supplies, which could materially adversely impact our business. It is also possible that the Company will experience an adverse impact on cash collections as a result of the impact of the COVID-19 pandemic.

The spread of COVID-19, which has caused a broad impact globally, including restrictions on travel and quarantine policies put into place by businesses and governments, may have a material economic effect on our business. Such restrictions may present challenges in connection with our laboratory business, our ability to successfully commercialize *Rayaldee*, our ability to manufacture pharmaceutical products inIreland, Mexico, Spain, Chile and Israel, and our ability to continue clinical development of our product candidates. Further, if the spread of the coronavirus pandemic continues and our operations are adversely impacted, our ability to meet performance obligations under contracts may be impacted.

COVID-19 could disrupt our operations due to absenteeism by infected or ill members of management or other employees, or absenteeism by members of management and other employees who elect not to come to work due to the illness affecting others in our office or laboratory facilities, or due to quarantines. Supplies used in our diagnostic testing and research laboratories could be disrupted or we could see prices increase if the manufacturers or suppliers of such items experience absenteeism due to illness of their employees or due to local quarantines, limiting our ability to provide diagnostic testing services, supply sufficient product for our clinical or commercial plans or satisfy our contractual obligations.

The regulatory framework governing laboratories, diagnostic and pharmaceutical companies may be affected as governmental authorities divert resources to respond to the COVID-19 outbreak, which may have an unanticipated and unforeseen impact on our operations. It is possible that the timing of regulatory submissions and approvals for our products, including hGH-CTP, will be adversely impacted or delayed. With respect to our ongoing and planned clinical trials, restrictions and efforts to avoid further spread of COVID-19 may present challenges to the conduct of these trials consistent with normally applicable approaches and good clinical practice standards, and although regulators including the FDA have offered guidance applicable during the COVID-19 pandemic allowing for flexibility of standards in certain areas and alternate methods of meeting trial oversight obligations (for example, via remote monitoring), the potential impact of these challenges cannot be fully predicted at this time.

The anticipated economic consequences of the COVID-19 pandemic have adversely impacted financial markets and the deteriorating economic conditions globally have resulted in a challenging capital raising environment, which could materially limit our access to capital, whether through bank facilities and lines of credit, the issuance and sale of our common stock, debt securities or otherwise. Our inability to obtain capital when and if needed, could have a material adverse impact on our operations.

Item 2. Unregistered Sales of Equity Securities and Use of Proceeds

None.

Item 3. Defaults Upon Senior Securities

None.

Item 4. Mine Safety Disclosures

Not Applicable.

Item 5. Other Information

None.

Item 6. Exhibits

Exhibit 10.1*	Amendment to Development and License Agreement between EirGen Pharma Ltd. and Vifor Fresenius Medical Care Renal Pharma Ltd., dated May 5, 2020.
Exhibit 10.2*	Amended and Restated Development and Commercialization License Agreement by and between Pfizer Inc. and OPKO Ireland Ltd., dated May 12, 2020.
Exhibit 31.1	Certification by Phillip Frost, Chief Executive Officer, pursuant to Rule 13a-14(a) and 15d-14(a) of the Securities and Exchange Act of 1934 as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002 for the quarterly period ended June 30, 2020.
Exhibit 31.2	Certification by Adam Logal, Chief Financial Officer, pursuant to Rule 13a-14(a) and 15d-14(a) of the Securities and Exchange Act of 1934 as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002 for the quarterly period ended June 30, 2020.
Exhibit 32.1**	Certification by Phillip Frost, Chief Executive Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 for the quarterly period ended June 30, 2020.
Exhibit 32.2**	Certification by Adam Logal, Chief Financial Officer, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 for the quarterly period ended June 30, 2020.
Exhibit 101.INS	Inline XBRL Instance Document
Exhibit 101.SCH	Inline XBRL Taxonomy Extension Schema Document
Exhibit 101.CAL	Inline XBRL Taxonomy Extension Calculation Linkbase Document
Exhibit 101.DEF	Inline XBRL Taxonomy Extension Definition Linkbase Document
Exhibit 101.LAB	inline XBRL Taxonomy Extension Label Linkbase Document
Exhibit 101.PRE	Inline XBRL Taxonomy Extension Presentation Linkbase Document
Exhibit 104	Cover Page Interactive Data File (formatted as Inline XBRL and contained in Exhibit 101)

* Pursuant to Item 601(b)(10)(iv) of Regulation S-K, portions of this exhibit have been omitted because such portions are both not material and would likely cause competitive harm to the Company if publicly disclosed. The Company will supplementally provide a copy of an unredacted copy of this exhibit to the U.S. Securities and Exchange Commission or its staff upon request.

** Furnished herewith.

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized.

Date: July 31, 2020

OPKO Health, Inc.

/s/ Adam Logal

Adam Logal
Senior Vice President and Chief Financial Officer

CERTAIN IDENTIFIED INFORMATION HAS BEEN OMITTED FROM THIS EXHIBIT BECAUSE IT IS BOTH NOT MATERIAL AND WOULD LIKELY CAUSE COMPETITIVE HARM TO THE REGISTRANT IF PUBLICLY DISCLOSED. OMISSIONS ARE IDENTIFIED AS [***]

AMENDMENT TO DEVELOPMENT AND LICENSE AGREEMENT

AMENDMENT AGREEMENT to Development and License Agreement effective as of 8 May 2016 ("the Agreement") between EirGen Pharma Limited, West Side Business, Old Kilmeaden, Waterford, Ireland ("OPKO") on the one part and Vifor Fresenius Medical Care Renal Pharma Ltd, Rechenstrasse 37, 9014 St. Gallen, Switzerland ("VF") on the other part.

Background
The Parties have now agreed to amend the Agreement with effect as of 5 May 2020 as set out in this Amendment Agreement.

1. The Parties have agreed to insert a new Section 1.48: "Middle East" shall mean Algeria, Bahrain, Egypt, Golan Heights, Iran, Iraq, Iraqi Kurdistan, Israel, Jordan, Kuwait, Lebanon, Libya, Mauritania, Morocco, Oman, Palestinian territories, Qatar, Saudi Arabia, Sudan, Syria, Tunisia, United Arab Emirates, and Yemen.

2. The Parties have agreed to amend Section 1.43 as follows.

   Section 1.43 is hereby amended to exclude the following jurisdictions from the Territory: Mexico, South Korea, the Middle East and all countries of Africa ("Excluded Countries").

3. The Parties have agreed to insert a new Section 2.4:

   2.4 Territory

   VF agrees, ***, to promptly transfer to OPKO, if any, all results, analyses, reports, Product data, technology, know-how, regulatory applications or filings, and other information in whatever form developed or generated regarding past and ongoing clinical, development or regulatory activity concerning the Product in the Excluded Countries.

4. The Parties have agreed to delete and replace the existing Section 5.2 with the following new Section 5.2:

   5.2 Milestone Payments.

As additional consideration for the rights under the Patents, OPKO Trademarks, and OPKO Technology granted to VF in this Agreement, VF shall pay non-refundable and non-creditable milestone payments to OPKO in the amounts and upon the occurrence of the events set forth below. Each such payment shall be made within *** Business Days of the achievement or occurrence of the milestone event. Each milestone payment will be payable only one time. For purposes of clarity, more than one of the Net Sales and regulatory approval milestones may be met during the same Agreement Year and, in that case, each such milestone would be payable. For example, if during one Agreement Year there were Net Sales of the Product in the Territory of ***, and it was the first Agreement Year in which Net Sales of the Product in the Territory exceeded ***, *** and ***, then VF would owe all of the ***, the *** and the *** milestone payments and no similar milestone payments would be due in any following Agreement Year if the Net Sales in the Territory exceeded ***.

Milestone Milestone Payment

First New Drug Approval in *** for the treatment of secondary hyperparathyroidism in *** patients with vitamin D insufficiency ***

First New Drug Approval in *** for the treatment of secondary hyperparathyroidism in *** patients with vitamin D insufficiency ***

First New Drug Approval in *** for the treatment of secondary hyperparathyroidism in *** patients with vitamin D insufficiency ***

First New Drug Approval in *** for the treatment of secondary hyperparathyroidism in *** patients with vitamin D insufficiency ***

First Commercial Sale in ***. ***
□*** ***;

and ***, then the milestone owed and payable to OPKO will be equal to that corresponding pro rata percentage *** between *** and *** that is obtained. For example, *** obtained is ***, OPKO shall be entitled to a *** milestone payment of ***. *** per day. For the avoidance of doubt, OPKO shall be entitled to receive the milestone payments described herein based on *** irrespective of any additional dosage provided in a ***.

***:
if *** / Daily Dose ***;

and ***, then the milestone owed and payable to OPKO
will be equal to that corresponding pro rata percentage of the *** that is obtained. For example, if the *** obtained is ***, OPKO shall be entitled to a *** milestone payment of ***.

***:
if *** / Daily Dose ***;
and if the ***, then the milestone owed and payable to OPKO
will be equal to that corresponding pro rata percentage *** between *** that is obtained. For example, if the *** obtained is ***, OPKO shall be entitled to a *** milestone payment of ***.

First time aggregate Net Sales of the Product
in the Territory exceed ***
in an Agreement Year ***

First time aggregate Net Sales of the Product
in the Territory exceed ***
in an Agreement Year ***

First time aggregate Net Sales of the Product
in the Territory exceed ***
in an Agreement Year ***

First time aggregate Net Sales of the Product
in the Territory exceed *** in an
Agreement Year ***

5. The Parties have agreed to delete and replace the existing Section 5.4 with the following new Section 5.4:

5.4 Minimum Royalty.

Beginning on the first day of the first Calendar Quarter after the Product First Commercial Sale, for the periods set forth in the table below, VF shall be obligated to pay OPKO a minimum royalty (the "Minimum Royalty") to the

extent the aggregate Royalty Payments due for the applicable period are below the following amounts, ***

Period	Minimum Royalty
The first *** consecutive Calendar Quarters beginning on the first day of the first Calendar Quarter after the Product First Commercial Sale, and each *** consecutive Calendar Quarter thereafter	***

For purposes of clarity, if the total Royalty Payments due under Section 5.3 with respect to each Minimum Royalty period are greater than the applicable Minimum Royalty for the same period, no Minimum Royalty amount shall be payable by VF with respect to such period. To the extent that the total Royalty Payments due under Section 5.3 with respect to a period are less than the Minimum Royalty for the same period, VF shall pay OPKO the difference between the total Royalty Payments and the Minimum Royalty. The calculation for the first period to determine if anything is due under this Section 5.4 is made after *** Calendar Quarters based on the total Royalty Payments due under Section 5.3 with respect to such *** Calendar Quarters when compared to the Minimum Royalty of ***. Thereafter, the calculation for subsequent periods is made for periods of *** Calendar Quarters each, comparing Royalty Payments due under Section 5.3 with respect to the period to the Minimum Royalty of ***. The Minimum Royalty obligation under this Section 5.4 shall terminate as of the end of the applicable *** Calendar Quarter period ending immediately prior to the Calendar Quarter in which: (a) a Competitive Product comes on the market in at least *** Major Countries and there is a Royalty Payment Reduction in *** country or (b) the Royalty Term expires for a Product in at least *** Major Countries.

6. The Parties have agreed to delete and replace the existing Section 8.1 with the following new Section 8.1:

8.1 VF Efforts.

Subject to the terms and conditions of this Agreement, VF agrees to use Commercially Reasonable Efforts to (a) commence the regular commercial distribution, use, and sale of the Product in the Field in each Major Country as soon as commercially practicable, and (b) continue diligently thereafter to commercialize, market, promote and sell the Product in the Field in the Territory

for each indication for which the Product has received Regulatory Approval in the Territory.

*** if it is determined, by mutual agreement of VF and OPKO through the JSC, that *** in such country or another country.

Except as expressly amended herein, the Agreement shall remain in full force and effect.

In Witness Whereof, the Parties have caused this Amendment Agreement to be executed by their duly authorised representatives as of the dates listed below.

EirGen Pharma, Ltd.

/s/ Steven D. Rubin
Print name: Steven D. Rubin
Title: Director
Date: May 4, 2020

/s/ Adam Logal
Print name: Adam Logal
Title: Director
Date: May 4, 2020

Vifor Fresenius Medical Care Renal Pharma Ltd

/s/ Christoph Springer
Print name: Christoph Springer
Title: Chief Strategy Officer
Date: 05-May-20

/s/ Oliver P. Kronenberg
Print name: Oliver P. Kronenberg
Title: Group General Counsel
Date: 05-May-20

CERTAIN IDENTIFIED INFORMATION HAS BEEN OMITTED FROM THIS EXHIBIT BECAUSE IT IS BOTH NOT MATERIAL AND WOULD LIKELY CAUSE COMPETITIVE HARM TO THE REGISTRANT IF PUBLICLY DISCLOSED. OMISSIONS ARE IDENTIFIED AS [***]

CONFIDENTIAL
EXECUTION VERSION

AMENDED AND RESTATED DEVELOPMENT AND COMMERCIALIZATION LICENSE AGREEMENT

This Amended and Restated Development and Commercialization License Agreement (the "**Agreement**") is entered into as of May 12, 2020 (the "**Amendment Execution Date**") and is made effective as of January 1, 2020 (the "**Amendment Effective Date**"), by and between Pfizer Inc., a Delaware corporation with offices located at 235 East 42nd Street, New York, New York 10017 (" **Pfizer**") and OPKO Ireland Ltd., an entity organized and existing under the laws of Ireland ("**OPKO**"). Pfizer and OPKO are referred to herein individually as a "**Party**" and collectively as the "**Parties**."

RECITALS

WHEREAS, OPKO and Pfizer are parties to that certain Development and Commercialization Agreement, dated December 13, 2014 (the "**Original Execution Date**"), as amended by those certain letter agreements between OPKO and Pfizer dated as of December 13, 2018 and December 19, 2018 (as amended, the "**Original Agreement**"), whereby, *inter alia*, OPKO granted an exclusive license of Licensed Technology owned or otherwise Controlled by OPKO in the Territory to Pfizer (each as defined therein); and

WHEREAS, OPKO and Pfizer now wish to amend and restate the Original Agreement in its entirety to make such changes as set forth herein, with the effect that the Original Agreement shall be superseded and replaced in its entirety by this Agreement.

NOW, THEREFORE, in consideration of the mutual covenants and agreements provided herein, the Parties hereby agree that the Original Agreement is superseded and replaced in its entirety by this Agreement as of the Amendment Effective Date as follows:

1. DEFINITIONS.

1.1. "**AAA**" has the meaning set forth in Schedule 11.14.

1.2. "**Accounting Standards**" means GAAP and International Financial Reporting Standards or other applicable international accounting standard in use, in each case as applicable and consistently applied by the relevant Person.

1.3. "**Additional Pediatric Indication**" has the meaning set forth in Section 3.10.3(b)(i).

1.4. "**Affiliate**" means, as of any point in time and for so long as such relationship continues to exist with respect to any Person, any Person that controls, is controlled by or is under

common control with such Person. A Person shall be regarded as in control of another Person if it (a) owns or controls at least fifty percent (50%) of the equity securities of the subject Person entitled to vote in the election of directors or (b) possesses, directly or indirectly, the power to direct or cause the direction of the management or policies of any such Person (whether through ownership of securities or other ownership interests, by contract or otherwise); *provided*, *however*, *that* where an entity owns a majority of the voting power necessary to elect a majority of the board of directors or other governing board of another entity, but is restricted from electing such majority by contract or otherwise, such entity will not be considered to be in control of such other entity until such time as such restrictions are no longer in effect.

1.5. "**AGHD**," or "**Adult Growth Hormone Deficiency**" means growth hormone deficiency in adult patients, whether as a result of adult onset or childhood onset causes.

1.6. "**Agreement**" has the meaning set forth in the Preamble.

1.7. "**Amendment Effective Date**" has the meaning set forth in the Preamble.

1.8. "**Amendment Execution Date**" has the meaning set forth in the Preamble.

1.9. "**Applicable Law**" means any law (including common law), statute, rule, regulation, order, judgment, or ordinance of any Governmental Authority, including those concerning environmental, health, and safety matters.

1.10. "**Approved CRO**" has the meaning set forth in Section 3.1.11(a).

1.11. "**Approved Indication**" means, with respect to a Licensed Product, a specific human disease or condition for which the treatment or prevention has received Regulatory Approval.

1.12. "**Approved Vendor**" has the meaning set forth in Section 3.1.11(b).

1.13. "**Audited Party**" has the meaning set forth in Section 5.8.2.

1.14. "**Auditing Party**" has the meaning set forth in Section 5.8.2.

1.15. "**Auditing Plan**" has the meaning set forth in Section 4.7.1.

1.16. "**Bankruptcy Code**" has the meaning set forth in Section 9.4.1.

1.17. "**Bankruptcy Event**" has the meaning set forth in Section 9.4.1.

1.18. "**Binding Obligation**" means, with respect to a Party, (a) any oral or written agreement or arrangement that binds or affects such Party's operations or property, including any assignment, license agreement, loan agreement, guaranty, or financing agreement, (b) the provisions of such Party's charter, bylaws, or other organizational documents, or (c) any order, writ, injunction, decree, or judgment of any court or Governmental Authority entered against such Party or by which any of such Party's operations or property are bound.

1.19. "**Biosimilar Product**" means a pharmaceutical product which, with respect to a Licensed Product (a) has been licensed as a biosimilar or interchangeable product by the FDA pursuant to Section 351(k) of the Public Health Service Act (42 U.S.C. § 262(k)), as may be amended, or any subsequent or superseding law, statute or regulation, (b) has been authorized as a similar biological medicinal product in the EU pursuant to Directive 2001/EC/83, as may be amended, or any subsequent or superseding law, statute or regulation, or (c) has otherwise

achieved analogous regulatory approval based upon reference to a Licensed Product from another applicable Regulatory Authority.

1.20. "**BLA**" means a Biologics License Application for Regulatory Approval filed with the FDA in the United States pursuant to Section 351(a) of the Public Health Service Act (42 U.S.C. 262(a) or any successor statutes or regulations), or any foreign equivalent thereof.

1.21. "**Brief**" has the meaning set forth in Schedule 11.14.

1.22. "**Business Day**" means a day other than a Saturday, Sunday or bank or other public holiday in New York, New York.

1.23. "**Calendar Quarter**" means the respective periods of three consecutive calendar months ending on March 31, June 30, September 30 and December 31.

1.24. "**CDA**" has the meaning set forth in Section 11.18.

1.25. "**Chairperson**" has the meaning set forth in Section 3.2.2.

1.26. "**Clinical Data Package**" has the meaning set forth in Section 3.4.2.

1.27. "**Clinical Dataset**" has the meaning set forth in Section 3.4.3(a).

1.28. "**Clinical Investigator**" means the principal investigator at each Site.

1.29. "**Clinical Investigator Meeting**" has the meaning set forth in Section 4.2.2(a).

1.30. "**Clinical Trial Agreement**" has the meaning set forth in Section 4.2.1(b).

1.31. "**Clinical Trial Registries**" has the meaning set forth in Section 3.3.4(a).

1.32. "**CMC Information**" means the chemistry, manufacturing and control information required for the submission of a BLA.

1.33. "**Commercialize**" means all activities required or directed to market, promote, distribute, offer for sale, sell, have sold, import, have imported, export, have exported or otherwise commercialize a pharmaceutical product or device, including activities ***. When used as a noun, "Commercialization" means any and all activities involved in Commercializing.

1.34. "**Commercially Reasonable Efforts**" means, with respect to the efforts to be expended by a Party with respect to any objective, subject to Section 11.6, those reasonable, good faith efforts and resources to accomplish such objective as such Party and its Affiliates would normally use to accomplish a similar objective under similar circumstances, in each case taking into account all Relevant Factors in effect at the time such efforts are to be expended. With respect to any efforts relating to the Development, Regulatory Approval and/or Commercialization of a Compound or Licensed Product, generally or with respect to any particular country in the Territory, such Party will be deemed to have exercised Commercially Reasonable Efforts if such Party has exercised those efforts normally used by such Party and its Affiliates, in the relevant country, with respect to a compound, product or product candidate Controlled by such Party and/or its Affiliates which is of ***, in each case taking into account all Relevant Factors in effect at the time such efforts are to be expended***.

1.35. "**Compliance**" means the adherence by the Parties in all material respects to all Applicable Laws, in each case with respect to the activities to be conducted under this Agreement.

1.36. "**Compound**" means any human growth hormone (hGH) polypeptide ***.

1.37. "**Confidential Information**" has the meaning set forth in Section 7.1.

1.38. "**Control**" means, with respect to any Intellectual Property Right or material (including any Patent Right, Know-How or other data, information or material), the ability (whether by sole, joint or other ownership interest, license or otherwise) to, without violating the terms of any agreement with a Third Party, grant the relevant license or sublicense or provide or provide access or other right in, to or under such Intellectual Property Right or material.

1.39. "**Cost of Goods Sold**" or "**COGS**" means, for Genotropin Products or Licensed Products, as the case may be, as reasonably determined on a *** basis, (a) with respect to product Manufactured by the Party reporting Net Sales, the Manufacturing Cost of such product; (b) with respect to product purchased by the Party reporting Net Sales from the other Party, the Manufacturing Cost of such product; (c) with respect to product purchased by the Party reporting Net Sales from a Third Party, such Party's cost of acquisition of such product; and (d) with respect to product Manufactured by the Party reporting Net Sales and sold to a Third Party, the Manufacturing Cost of such product, together in the case of (a), (b), (c) and (d) with other costs incurred by such Party and allocable to such product in accordance with Accounting Standards, including the costs of quality assurance and storage. For clarity, Pfizer agrees to allocate all aforementioned costs on a *** basis consistent with its internal accounting policy, such that *** are only applied as a reduction of Net Sales in that same *** (i.e., *** apply only to Net Sales in the *** and are not applied to reduce the Net Sales in the *** or ***).

1.40. "**CRO**" means a contract research organization.

1.41. "**CRO Agreement**" has the meaning set forth in Section 3.1.11(a).

1.42. "**CTA**" means a Clinical Trial Application submitted to a Regulatory Authority, the submission and approval of which is necessary to initiate or conduct clinical testing of a pharmaceutical product in humans in such jurisdiction.

1.43. "**CTP Technology**" means any Intellectual Property Rights, compositions, compounds or products including or relating to or directed towards the fusion with or conjugation of a polypeptide to at least one C-terminal peptide (CTP), or fragment thereof sufficient to increase the half-life of the polypeptide.

1.44. "**Data Management Plan**" has the meaning set forth in Section 4.5.2(a).

1.45. "**Develop**" or "**Developing**" means to discover, research or otherwise develop a process, compound, device or product, including conducting non-clinical and clinical research and development activities. When used as a noun, "Development" means any and all activities involved in Developing.

1.46. "**Development Budget**" has the meaning set forth in Section 3.1.5.

1.47. "***" has the meaning set forth in Section 3.1.13.

1.48. "**Development Plan**" has the meaning set forth in Section 3.1.1(a).

1.49. "**Device**" means a proprietary delivery system for subcutaneous delivery of any Compound.

1.50. "**DG44 Materials**" has the meaning set forth in Section 8.4.7.

1.51. "**Diligence Issue**" has the meaning set forth in Section 3.10.2.

1.52. "**Disclosed Third Party Agreement**" has the meaning set forth in Section 8.3.11.

1.53. "**Disclosing Party**" has the meaning set forth in Section 7.2.

1.54. "**EMA**" means the European Medicines Agency and any successor agency or authority thereto.

1.55. "**EU Regulatory Approval**" means the first approval of an MAA for a Licensed Product in the EU.

1.56. "*******" means the *** as of the Original Execution Date and to the extent *** following the Original Effective Date, ***.

1.57. "*******" means that period beginning on the *** on termination of this Agreement in its entirety or termination of this Agreement for the *** as permitted pursuant to ***.

1.58. "**European Union**" or "**EU**" or "**E.U.**" means the member states of the European Union, as may exist from time to time, which as of the Original Execution Date include Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden and the United Kingdom and all other countries that accede to the European Union during the term of this Agreement. For clarity, ***.

1.59. "**Existing Trials**" has the meaning set forth in Section 3.12.

1.60. "**FDA**" means the United States Food and Drug Administration and any successor agency or authority thereto.

1.61. "**Field**" means all human therapeutic uses of human growth hormone (hGH) for long-lasting (not daily) administration.

1.62. "**Financial Disclosure Form**" has the meaning set forth in Section 4.2.1(c).

1.63. "**First Commercial Sale**" means, on a Licensed Product-by-Licensed Product and country-by-country basis, the first sale by Pfizer or an Affiliate or permitted sublicensee of Pfizer to a Third Party in such country or for end use or consumption of such Licensed Product in a country, after such Licensed Product has been granted Regulatory Approval (for clarity, including Price Approval) by the appropriate Regulatory Authority(ies) for such country. A First Commercial Sale excludes any sale or other distribution for use in a clinical trial or other Development activity, promotional use (including samples), or for compassionate use or on a named patient basis.

1.64. "**Force Majeure**" has the meaning set forth in Section 11.7.

1.65. "**Franchise Gross Profit**" means *** applied on a *** basis in the Territory in the applicable calendar year (prorated for any partial calendar year).

1.66. "**Franchise Net Sales**" means *** in the Territory in the applicable calendar year (prorated for any partial calendar year).

1.67. "**GAAP**" means United States generally accepted accounting principles, consistently applied.

1.68. "**Genotropin**" has the meaning set forth in Section 1.70.

1.69. "**Genotropin Divestment**" means the event upon which *** in which case, any and all ***. For the purposes of this definition, divestment shall include any transaction that ***.

1.70. "**Genotropin Products**" means the pharmaceutical products listed on Schedule 1.70 ("**Genotropin**") *** in the first *** following the First Commercial Sale of Licensed Product for PGHD.

1.71. "**Good Clinical Practices**" or "**GCP**" means all applicable good clinical practice standards for the design, conduct, performance, monitoring, auditing, recording, analyses and reporting of clinical trials, including, as applicable, (a) the International Conference on Harmonisation of Technical Requirements for Registration of Pharmaceuticals for Human Use ("ICH") Harmonised Tripartite Guideline for Good Clinical Practice (CPMP/ICH/135/95) and any other guidelines for good clinical practice for clinical trials on medicinal products in the EU; (b) the Declaration of Helsinki (2004), as last amended at the 52nd World Medical Association General Assembly in October 2000, and any further amendments or clarifications thereto; and (c) the equivalent Applicable Laws in any relevant country, each as may be amended and applicable from time to time and, in each case, that provide for, among other things, assurance that the clinical data and reported results are credible and accurate and protect the rights, integrity, and confidentiality of trial subjects.

1.72. "**Government Official**" means (a) any elected or appointed government official (e.g., a member of a ministry of health), (b) any employee or Person acting for or on behalf of a government official, Governmental Authority, or other enterprise performing a governmental function, (c) any political party, candidate for public office, officer, employee, or Person acting for or on behalf of a political party or candidate for public office, and (d) any employee or Person acting for or on behalf of a public international organization (e.g., the United Nations). For clarity, healthcare providers employed by government-owned hospitals will also be considered Government Officials.

1.73. "**Governmental Authority**" means any court, agency, department, authority or other instrumentality of any national, state, county, city or other political subdivision.

1.74. "**HSR Act**" means the Hart-Scott-Rodino Antitrust Improvements Act of 1976, as amended, and the rules and regulations promulgated thereunder.

1.75. "**HSR Filing**" means filings by OPKO and Pfizer with the United States Federal Trade Commission and the Antitrust Division of the United States Department of Justice of a Notification and Report Form for Certain Mergers and Acquisitions (as that term is defined in the HSR Act) with respect to the matters set forth in this Agreement, together with all required documentary attachments thereto.

1.76. "**IDMC**" has the meaning set forth in Section 4.10.

1.77. "**IDMC Charter**" has the meaning set forth in Section 4.10.

1.78. "**IND**" means an Investigational New Drug Application submitted under the United States Federal Food, Drug, and Cosmetic Act, as amended, and the rules and regulations promulgated thereunder, or an analogous application or submission with any analogous agency or Regulatory Authority outside of the United States for the purposes of obtaining permission to conduct clinical trials.

1.79. "**Indemnified Party**" has the meaning set forth in Section 10.4.1.

1.80. "**Indemnifying Party**" has the meaning set forth in Section 10.4.1.

1.81. "**Informed Consent**" has the meaning set forth in Section 4.3.2.

1.82. "**Infringement Claim**" has the meaning set forth in Section 6.6.1.

1.83. "**Intellectual Property Rights**" means all copyrights, trade secrets, trademarks, moral rights, Patent Rights, Know-How and any and all other intellectual property or proprietary rights now known or hereafter recognized in any jurisdiction.

1.84. "**Invoicing Party**" has the meaning set forth in Section 3.1.6(a).

1.85. "**IRB**" means institutional review board.

1.86. "*******" means the ***.

1.87. "*******" means that period beginning on the ***, and ending on termination of this Agreement in its entirety or termination of this Agreement for the ***.

1.88. "**Japan Regulatory Approval**" means the first approval by a PMDA for a Licensed Product in Japan.

1.89. "**JDC**" has the meaning set forth in Section 3.2.1.

1.90. "**Joint Developed IP**" has the meaning set forth in Section 6.1.2(c).

1.91. "**Know-How**" means any invention, discovery, development, data, information, process, procedure (including training procedures), method, technique, material (including any chemical, biological material or other compositions of matter), technology, result, cell line, compounds, probe, sequence, device or other know-how, but not any Patent Rights.

1.92. "**Liability**" has the meaning set forth in Section 10.2.

1.93. "**LIBOR**" means the rate of interest per annum determined on the basis of the rate for deposits in U.S. Dollars for a period of thirty (30) days as published by the Wall Street Journal. If the thirty (30) day LIBOR has been permanently discontinued, then it will be replaced by a comparable or successor quoting service mutually agreed to by the Parties and the definition of "LIBOR" as used herein shall be deemed to be referring to such quoting service.

1.94. "**Licensed Activities**" has the meaning set forth in Section 6.5.1.

1.95. "**Licensed hGH-Specific Patents**" means those certain Licensed Patent Rights, the claim(s) of which claim, recite, pertain to or are directed to a human growth hormone (hGH) polypeptide ***.

1.96. "**Licensed Know-How"** means any Know-How that (a) is Controlled by OPKO or any of its Affiliates as of the Original Effective Date or comes into the Control of or is developed by OPKO or any of its Affiliates during the Term (other than through the grant of a license by Pfizer) to the Compound or Licensed Products; and (b) is directed to any Compound or Licensed Product or to the Development, Manufacture, Commercialization or use of any of the foregoing.

1.97. "**Licensed OPKO Core Patents**" means those certain Licensed Patent Rights including (a) at least one claim that claims, recites, encompasses or is directed to a human growth hormone (hGH) polypeptide ***. Without limiting the foregoing, Licensed OPKO Core

Patents include the Patent Rights set forth on Schedule 1.98(b) as it may be updated by OPKO from time to time.

1.98. "**Licensed Patent Rights**" means any Patent Right that (a) is owned by OPKO as of the Original Effective Date (including the Patent Rights listed in Schedule 1.98) or comes into the Control of OPKO during the Term (other than through the grant of a license by Pfizer) and (b) (i) claims or recites any Compound or Licensed Product (including the composition of matter thereof) or Licensed Know-How, (ii) claims a method of making any Compound or Licensed Product, or (iii) claims a method of using any Compound or Licensed Product. For the avoidance of doubt, Licensed Patent Rights shall include ***.

1.99. "**Licensed Product**" means any pharmaceutical product containing one or more Compounds. The Licensed Product may be used with or accompanied by a Device.

1.100. "**Licensed Product CMC Activities**" means those activities set forth in the Development Plan under "CMC Development" and relating to the Licensed Product.

1.101. "**Licensed Technology**" means Licensed Patent Rights and Licensed Know-How.

1.102. "**Litigation Conditions**" has the meaning set forth in Section 10.4.2.

1.103. "**MAA**" means Marketing Authorization Application.

1.104. "**Major EU Country**" means any of France, Germany, Italy, Spain or the United Kingdom.

1.105. "**Major Market Country**" means any of ***.

1.106. "**Manufacture**" or "**Manufacturing**" means to make, produce, manufacture, process, fill, finish, package, label, perform quality assurance testing on, release, ship or store a compound, device or product or any component thereof. When used as a noun, "Manufacture" or "Manufacturing" means any and all activities involved in Manufacturing a compound or product or any component thereof.

1.107. "**Manufacturing Activities**" has the meaning set forth in Section 3.1.2(f)(i).

1.108. "**Manufacturing Cost**" means***

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***

1.109. "**MEDDEV Guidelines**" means those guidelines published by the European Commission promoting a common approach by manufacturers and notified bodies involved in the conformity assessment procedures according to the relevant annexes of the Medical Device Directive and other applicable EU directives, and by the competent authorities charged with safeguarding public health.

1.110. "**Medical Device Directive**" means the directive 93/42/EEC, as amended from time to time.

1.111. "**Monitoring Plan**" has the meaning set forth in Section 4.8.

1.112. "**Net Sales**" means, with respect to a Genotropin Product or a Licensed Product, gross amounts invoiced for sales by Pfizer and its Affiliates and sublicensees of such Genotropin Product or Licensed Product to Third Parties in the Territory, less in each case (i) bad debts and uncollectable invoiced amounts relating to sales of Licensed Product that are actually written off

in accordance with GAAP, consistently applied throughout Pfizer and its Affiliates, provided that any such amounts shall be capped at up to *** of Net Sales per Pfizer Year and any subsequently collected amounts will be included in the current Net Sales or Gross Profit calculation, as the case may be, (ii) sales returns and allowances actually paid, granted or accrued, including trade, quantity and cash discounts and other adjustments, including those granted on account of price adjustments, returns, rebates, chargebacks or similar payments granted or given to wholesalers or other institutions, (iii) adjustments arising from consumer discount programs or other similar programs, (iv) customs or excise duties, valued-added taxes, sales taxes, consumption taxes and other taxes (except income taxes) or duties relating to sales, any payment in respect of sales to the United States government, any state government or any foreign government, or to any other governmental authority, or with respect to any government-subsidized program or managed care organization, each to the extent not already reflected in the amount invoiced, and (v) freight and insurance for the Licensed Product to the extent included in the amount invoiced. Net Sales shall be calculated by Pfizer using a method of value allocation consistent with the method used with Pfizer's other collaborations. Net Sales shall be determined from books and records maintained in accordance with the Accounting Standards, as consistently applied by Pfizer with respect to sales of the Genotropin Product or Licensed Product.

1.113. "*******" means the *** described in ***.

1.114. "*******" means those activities set forth in the Development Plan under "CMC Development" and relating to the ***.

1.115. "**New Trials**" has the meaning set forth in Section 3.13.

1.116. "**Notice of Dispute**" has the meaning set forth in Section 11.13.1.

1.117. "**OLE Studies**" means all ongoing and completed open label extension studies for the Licensed Product set forth in the Development Plan (as it may be amended from time to time, including amendments for additional open label extension studies), ***.

1.118. "**OPKO**" has the meaning set forth in the Preamble.

1.119. "**OPKO Developed IP**" has the meaning set forth in Section 6.1.2(b).

1.120. "**OPKO Indemnified Party**" has the meaning set forth in Section 10.2.

1.121. "**OPKO Prosecuted IP**" has the meaning set forth in Section 6.3.1(a).

1.122. "**OPKO Review Period**" has the meaning set forth in Section 7.8.1.

1.123. "**OPKO Third Party Agreement**" means any agreement between OPKO (or any of its Affiliates) and any Third Party that could give rise to a Third Party's claim on or otherwise relates to OPKO's ownership of OPKO's right, title or interest in or to any Licensed Technology necessary for the Development, Manufacturing or Commercialization of Licensed Products.

1.124. "**Original Agreement**" has the meaning set forth in the Recitals.

1.125. "**Original Effective Date**" means January 28, 2015.

1.126. "**Original Execution Date**" has the meaning set forth in the Recitals.

1.127. "**Partial Termination**" has the meaning set forth in Section 9.5.1.

1.128. "**Party**" and "**Parties**" have the meaning set forth in the Preamble.

1.129. "**Patent Rights**" means any and all (a) issued patents, (b) pending patent applications, including all provisional applications, substitutions, continuations, continuations-in-part, divisions and renewals, and all patents granted thereon, (c) patents-of-addition, reissues, reexaminations and extensions or restorations by existing or future extension or restoration mechanisms, including patent term adjustments, patent term extensions, supplementary protection certificates or the equivalent thereof, (d) inventor's certificates, (e) other forms of government-issued rights substantially similar to any of the foregoing and (f) United States and foreign counterparts of any of the foregoing.

1.130. "**Payments**" means all of the payments made by Pfizer and/or its Affiliates to OPKO and/or its Affiliates pursuant to Article 5 of this Agreement, including without limitation the upfront payment, regulatory milestone payments, royalty payments, profit share payments and any adjustments.

1.131. "**Pediatric O&E Study**" means that certain Trial entitled "A Phase 3, Randomized, Multicenter, Open-Label, Crossover Study Assessing Subject Perception of Treatment Burden with Use of Weekly Growth Hormone (Somatrogon) Versus Daily Growth Hormone (Genotropin®) Injections in Children with Growth Hormone Deficiency," as the same may be amended from time to time in accordance with requests, requirements or other instructions received from any applicable Regulatory Authority.

1.132. "**Pending Phase III PGHD Study**" means that certain Trial entitled "Phase 3, open-label, randomized, multicenter, 12 months, efficacy and safety study of weekly MOD-4023 compared to daily Genotropin® - therapy in pre-pubertal children with growth hormone deficiency," as the same may be amended from time to time in accordance with requests, requirements or other instructions received from any applicable Regulatory Authority.

1.133. "**Person**" means an individual, sole proprietorship, partnership, limited partnership, limited liability partnership, corporation, limited liability company, business trust, joint stock company, trust, incorporated association, joint venture or similar entity or organization, including a government or political subdivision or department or agency of a government.

1.134. "**Pfizer**" has the meaning set forth in the Preamble.

1.135. "**Pfizer Developed CTP IP**" has the meaning set forth in Section 2.4.

1.136. "**Pfizer Developed IP**" has the meaning set forth in Section 6.1.2(a).

1.137. "**Pfizer Indemnified Party**" has the meaning set forth in Section 10.3.

1.138. "**Pfizer Prosecuted IP**" has the meaning set forth in Section 6.3.2(a).

1.139. "**Pfizer Quarter**" means each of the four (4) thirteen (13) week periods (a) with respect to the United States, commencing on January 1 of any Pfizer Year and (b) with respect to any country in the Territory other than the United States, commencing on December 1 of any Pfizer Year.

1.140. "**Pfizer Review Period**" has the meaning set forth in Section 7.8.2.

1.141. "**Pfizer Year**" means the twelve (12) month fiscal periods observed by Pfizer (a) commencing on January 1 with respect to the United States and (b) commencing on December 1 with respect to any country in the Territory other than the United States.

1.142. "**PGHD**," or "**Pediatric Growth Hormone Deficiency**" means growth failure in pediatric patients due to an inadequate secretion of endogenous growth hormone.

1.143. "**Pharmacovigilance Agreement**" has the meaning set forth in Section 3.14.1.

1.144. "**Phase III Clinical Trial**" means a human clinical trial of a compound or product for an indication on a sufficient number of subjects that is designed to establish that the compound or product is safe and efficacious for its intended use, and to determine warnings, precautions, and adverse reactions that are associated with the compound or product in the dosage range to be prescribed, and to support Regulatory Approval of the compound or product for such indication or label expansion of the compound or product. For clarity, the term "**Phase III Clinical Trials**" includes early access and compassionate use programs.

1.145. "**Phase IV Clinical Trial**" means a human clinical trial conducted after Regulatory Approval of a product, designed either (a) to extend or expand the label of indications for which that product is approved or (b) to obtain additional information regarding the risks, benefits and optimal use of that product.

1.146. "**PMDA**" means the Pharmaceuticals and Medical Devices Agency, Japan and any successor agency or authority thereto.

1.147. "**Post-Amendment Effective Date Period**" has the meaning set forth in Section 3.1.2(b).

1.148. "**Price Approval**" means, in any country or jurisdiction where a Governmental Authority authorizes reimbursement for, or approves or determines pricing for, pharmaceutical products, receipt (or, if required to make such authorization, approval or determination effective, publication) of *** pricing approval ***.

1.149. "**Profit Share Term**" means one or more of the *** as the context may require.

1.150. "**PSGA**," or "**Pediatric Short for Gestational Age**" means growth failure in children born small for gestational age who fail to manifest catch-up growth by age two (2) years.

1.151. "**Quality Agreement**" has the meaning set forth in Section 3.6.2.

1.152. "**Receiving Party**" has the meaning set forth in Section 7.2.

1.153. "***" or "***" means ***.

1.154. "**Regulatory Approval**" means, as relevant, each or all regulatory, technical, medical and scientific licenses, registrations, authorizations and approvals (including approvals of BLAs, supplements and amendments, pre- and post- approvals and Price Approvals) necessary for offering for sale, marketing and sale of a pharmaceutical product and/or device in a regulatory jurisdiction.

1.155. "**Regulatory Authority**" means, with respect to a particular country, ***, or jurisdiction, the Governmental Authority having responsibility for granting a specific Regulatory Approval in such country, ***, or jurisdiction. For clarity, Regulatory Authority shall, as applicable, include any notified body with respect to any Device.

1.156. "**Regulatory Exclusivity**" means any exclusive marketing rights or data exclusivity rights conferred by any Regulatory Authority with respect to a Licensed Product in a country, Region, or jurisdiction in the Territory, other than a Patent Right, including orphan drug

exclusivity, pediatric exclusivity, rights conferred in the European Union under Directive 2001/EC/83, or rights similar thereto in other countries or jurisdictions in the Territory.

1.157. "**Regulatory Materials**" means, with respect to a Licensed Product for any particular indication in any particular jurisdiction, regulatory applications and submissions (and any supplements or amendments thereto), and any notifications, communications, correspondence, registrations, drug master files, Regulatory Approvals and/or other filings made to, received from or otherwise conducted with a Regulatory Authority, including BLAs and INDs, as applicable, that relate to such Licensed Product in such jurisdiction. Regulatory Materials also include presentations, responses, and applications for Regulatory Approvals.

1.158. "**Regulatory Milestone**" has the meaning set forth in Section 5.2.

1.159. "**Regulatory Milestone Payment**" has the meaning set forth in Section 5.2.

1.160. "**Relevant Factors**" means all relevant factors that may affect the Development, Regulatory Approval or Commercialization of a Compound or Licensed Product, including (as applicable): actual and potential issues of safety, efficacy or stability; product profile ***.

1.161. "*******" means ***.

1.162. "**Representatives**" means, with respect to a Party, such Party, its Affiliates, its sublicensees and each of their respective officers, directors, employees, consultants, contractors and agents.

1.163. "*******" has the meaning set forth in Section 3.1.7(a).

1.164. "**Residual Knowledge**" means knowledge, techniques, experience and Know-How that (a) are, or are based on, any Confidential Information Controlled by the Disclosing Party and (b) are incidentally and unintentionally retained in the unaided memory of any authorized Representative of the Receiving Party after having access to such Confidential Information. An individual's memory will be considered to be incidentally and unintentionally unaided if the individual has not intentionally memorized the Confidential Information for the purpose of retaining and subsequently using or disclosing it. In no event, however, will Residual Knowledge include any knowledge, techniques, experience and Know-How to the extent (at any time, for such time) within the scope of any issued, valid and enforceable patent claim Controlled by the Disclosing Party.

1.165. "**Responsible Party**" has the meaning set forth in Section 3.1.6(a).

1.166. "**Royalty Term**" means, with respect to any particular Licensed Product in any particular country in the Territory, the period (a) commencing, on a country-by-country and Licensed Product-by-Licensed Product basis, on the First Commercial Sale of such Licensed Product in such country and (b) expiring on the date of the earlier of (x) the *** anniversary of the First Commercial Sale of such Licensed Product in a country, and (y) the commencement of the *** Profit Share Term, *** Profit Share Term ***. For the avoidance of doubt, the Royalty Term for a given Licensed Product in a given country in the Territory, if not previously expired, will expire immediately upon expiration or termination of this Agreement. On a Licensed Product-by-Licensed Product and country-by-country basis, the royalty rates for the Royalty Term *** within such country.

1.167. "**Safety Stock**" has the meaning set forth in Section 3.8.3.

1.168. "**sBLA**" has the meaning set forth in Section 3.10.3(a).

1.169. "**Site**" has the meaning set forth in Section 4.2.1(b).

1.170. "**SOPs**" has the meaning set forth in Section 4.1.

1.171. "**Specimens**" has the meaning set forth in Section 4.6.

1.172. "**Statistical Analysis Plan**" has the meaning set forth in Section 4.5.6.

1.173. "**Subject**" has the meaning set forth in Section 4.3.2.

1.174. "**Subject Recruitment Plan**" has the meaning set forth in Section 4.3.1.

1.175. "**Supply Agreement**" has the meaning set forth in Section 3.6.2.

1.176. "**Term**" has the meaning set forth in Section 9.1.

1.177. "*******" has the meaning set forth in Section 9.5.1.

1.178. "**Territory**" means all countries of the world other than countries in any *** that have been terminated under this Agreement pursuant to Article 9. For clarity, Territory includes each of the remaining *** under this Agreement (which until the termination of a ***, includes ***).

1.179. "**Third Party**" means any Person other than Pfizer, OPKO or their respective Affiliates.

1.180. "**Third Party Claim**" has the meaning set forth in Section 10.4.1.

1.181. "**Third Party Infringement**" has the meaning set forth in Section 6.4.1.

1.182. "**Trademark**" means any trademark, trade name, service mark, service name, brand, domain name, trade dress, logo, slogan or other indicia of origin or ownership, including the goodwill and activities associated with each of the foregoing.

1.183. "**Transition Plan**" has the meaning set forth in Section 2.8.1.

1.184. "**Treaty**" has the meaning set forth in Section 5.7.1.

1.185. "**Trial**" means all clinical trials, including methodology and non-interventional trials, whether initiated prior to or following the Original Execution Date, to be conducted pursuant to the Development Plan.

1.186. "**Trial Database**" has the meaning set forth in Section 4.5.3(a).

1.187. "**Trial Master File**" has the meaning set forth in Section 4.5.4.

1.188. "**United States**" or "**U.S.**" means the United States of America and all its territories and possessions. For clarity, the United States of America includes Puerto Rico.

1.189. "**Upfront Payment**" has the meaning set forth in Section 5.1.

1.190. "*******" means the *** comprised of the ***.

1.191. "*******" means that period beginning on the *** and ending on termination of this Agreement in its entirety ***.

1.192. "**U.S. Regulatory Approval**" means the first achievement of Regulatory Approval of a BLA for a Licensed Product for an Approved Indication.

1.193. "**Valid Claim**" means, with respect to a particular country, a claim of a Licensed Patent Right that: (a) is (i) issued or, (ii) as to a claim in a pending patent application which claim was filed in good faith, has been pending for a period of *** years or fewer from its first office action; (b) has not been held permanently revoked, unenforceable or invalid by a decision of a court or other Governmental Authority of competent jurisdiction, which decision is unappealable or unappealed within the time allowed for appeal; and (c) has not expired or been cancelled, withdrawn, abandoned, disclaimed or admitted to be invalid or unenforceable through reissue, disclaimer or otherwise. For clarity, any pending claim in an application in any country that has not been granted within *** years from its first office action shall not be included as a Valid Claim until such claim is granted and the provisions of (b) and (c) above are satisfied.

1.194. "**VAT**" has the meaning set forth in Section 5.7.1.

1.195. "**Vendor**" means any Third Party with whom a Party may contract for the procurement of services, equipment, tools, materials and/or supplies.

1.196. "**Vendor Agreement**" has the meaning set forth in Section 3.1.11(b).

1.197. "**Vendor Oversight Plan**" has the meaning set forth in Section 4.8.

1.198. Interpretation. Except where the context expressly requires otherwise, (a) the use of any gender herein shall be deemed to encompass references to either or both genders, and the use of the singular shall be deemed to include the plural (and vice versa), (b) the words "include", "includes" and "including" shall be deemed to be followed by the phrase "without limitation", (c) the word "will" shall be construed to have the same meaning and effect as the word "shall", (d) any definition of or reference to any agreement, instrument or other document herein shall be construed as referring to such agreement, instrument or other document as from time to time amended, supplemented or otherwise modified (subject to any restrictions on such amendments, supplements or modifications set forth herein), (e) any reference herein to any Person shall be construed to include the Person's successors and assigns, (f) the words "herein", "hereof" and "hereunder", and words of similar import, shall be construed to refer to this Agreement in its entirety and not to any particular provision hereof, (g) the word "days" shall mean calendar days, (h) all references herein to Articles, Sections, Exhibits or Schedules shall be construed to refer to Articles, Sections, Exhibits or Schedules of this Agreement, and references to this Agreement include all Exhibits and Schedules hereto, (i) the word "notice" means notice in writing (whether or not specifically stated) and shall include notices, consents, approvals and other written communications contemplated under this Agreement, (j) provisions that require that a Party, the Parties or any committee hereunder "agree," "consent" or "approve" or the like shall require that such agreement, consent or approval be specific and in writing, whether by written agreement, letter, approved minutes or otherwise (but excluding e-mail and instant messaging), (k) references to any specific law, rule or regulation, or article, section or other division thereof, shall be deemed to include the then-current amendments thereto or any replacement or successor law, rule or regulation thereof, and (l) the term "or" shall be interpreted in the inclusive sense commonly associated with the term "and/or" unless the context dictates otherwise because the subjects of the conjunction are mutually exclusive.

2. LICENSES.

2.1. Exclusive License Grant. Subject to the terms of this Agreement, including Section 2.2 and Article 4, as of the Original Effective Date, OPKO hereby grants to Pfizer an

exclusive royalty-bearing license (even as to OPKO and its Affiliates) under the Licensed Technology to use, have used, Develop, have Developed, Manufacture, have Manufactured, Commercialize, and have Commercialized Compounds and Licensed Products in the Territory.

2.2. Non-Exclusive Grant-Back License. Subject to the terms of this Agreement, as of the Original Effective Date, Pfizer hereby grants to OPKO and its Affiliates a fully-paid non-exclusive sublicense, with the right to sublicense, under the Licensed Technology and Pfizer's rights in any Pfizer Developed IP to Develop and have Developed Compounds and Licensed Products (including any Device used with or that accompanies Licensed Products) in the Territory, solely to the extent necessary for performance by OPKO of its obligations pursuant to Section 2.8 and Articles 3 and 4 of this Agreement. The foregoing sublicense is further sublicenseable to the extent useful or reasonably necessary for OPKO to fulfill its obligations hereunder.

2.3. Sublicenses for Pfizer Development and Commercialization.

2.3.1. Pfizer may not sublicense the rights granted under Section 2.1 in whole or in part without the prior written consent of OPKO; *provided*, *however*, *that* Pfizer may, subject to the requirements of this Section 2.3, without the prior written consent of OPKO:

(a) ***

(b) ***

In the event that Pfizer or its Affiliates need to grant a sublicense reasonably required for Pfizer to perform its obligations under this Agreement in connection with the Development, Manufacture and Commercialization of Licensed Products throughout the Territory, and the sublicense is not specifically permitted under Sections 2.3.1(a) or 2.3.1(b), then OPKO agrees to not unreasonably withhold its consent to such sublicense.

2.3.2. With respect to a permitted sublicense, (i) the relevant Third Party sublicensee(s) must be reasonably capable of assisting Pfizer in exploiting the market opportunity in the Territory for the Licensed Product based on the Development planned for the Licensed Product at the time of sublicense and must agree in writing to assume Pfizer's obligations with respect to the Licensed Product hereunder, (ii) Pfizer shall provide OPKO not less than *** days' prior written notice of such sublicense and shall promptly respond to any reasonable inquiries by OPKO with respect thereto, and (iii) Pfizer shall provide to OPKO no fewer than *** days after execution a copy of each such sublicense, *provided that* Pfizer may redact confidential information from such sublicense agreement that is not reasonably necessary to demonstrate Pfizer's compliance with the obligations set forth in this Section 2.3. Notwithstanding anything to the contrary, the prior written consent of OPKO shall be required for sublicenses to any Third Party that includes a right of Commercialization of any or all of the Major Market Countries.

2.3.3. Pfizer shall remain fully responsible to OPKO for the performance of all such permitted sublicensees, including if it has delegated Development, Manufacturing or Commercialization activities to, or otherwise contracted with, a Third Party Manufacturer, as if Pfizer had not so delegated and/or contracted with respect to such responsibilities. Sublicensees shall not have a right to further sublicense other than to their Affiliates. Pfizer shall not have any rights to grant any sublicenses under the Licensed Technology except as otherwise granted in this Section 2.3.

2.4. Licenses to Pfizer Developed IP. To the extent any of the Pfizer Developed IP relates to or is directed to CTP Technology or any derivatives, variants or improvements thereof (such Intellectual Property Rights, collectively, the "**Pfizer Developed CTP IP**") and is useful outside of its use in connection with the Licensed Products, then upon the request of OPKO and subject to the terms and conditions of this Agreement, Pfizer and OPKO shall negotiate in good faith to seek to agree upon commercially reasonable terms for an exclusive or non-exclusive (at the option of OPKO) licensing arrangement with respect to such Pfizer Developed CTP IP; *provided that* neither Party will have any obligation to enter into any such licensing arrangement.

2.5. Direct Licenses to Affiliates. Pfizer may, from time to time, request that OPKO grant licenses directly to Affiliates of Pfizer by giving written notice, upon receipt of which OPKO agrees to enter into and sign a separate direct license agreement with such designated Affiliate of Pfizer. All such direct license agreements shall be consistent with the terms and conditions of this Agreement, except for such modifications as may be required by Applicable Laws in the country in which the direct license will be exercised. The Parties further agree to make such amendments to this Agreement that are necessary to conform the combined terms of such direct licenses and this Agreement to the terms of this Agreement. All costs of making such direct license agreement(s), including OPKO's reasonable attorneys' fees, under this Section 2.5 shall be borne by Pfizer.

2.6. Right of Reference. OPKO hereby grants to Pfizer a "Right of Reference," as that term is defined in 21 C.F.R. § 314.3(b) (or any analogous Applicable Law recognized outside of the United States), to all data Controlled by OPKO or its Affiliates that relates to any Compound or Licensed Product, and OPKO shall provide a signed statement to this effect, if requested by Pfizer, in accordance with 21 C.F.R. § 314.50(g)(3) (or any analogous Applicable Law recognized outside of the United States).

2.7. No Implied Rights; Retained Rights. Except as expressly provided in this Agreement, neither Party shall be deemed to have granted the other Party (by implication, estoppel or otherwise) any right, title, license or other interest in or with respect to any Intellectual Property Rights or information Controlled by such Party. For the avoidance of doubt, OPKO retains the right to use the Licensed Technology in order to use, have used, Develop, have Developed, Manufacture, have Manufactured, Commercialize, and have Commercialized products other than Licensed Products, on its own or with any other party throughout the world, and to use, have used, Develop, have Developed, Manufacture, have Manufactured, Commercialize and have Commercialized products incorporating the CTP Technology in connection with any polypeptide or other compound which is not a Compound.

2.8. Transfer Activities.

2.8.1. Transition Plan. OPKO shall cooperate with and provide timely assistance to Pfizer to ensure the smooth transition and to facilitate the transfer of the Licensed Technology to Pfizer, including taking the actions specified in a transition plan to be agreed by the Parties (the "**Transition Plan**"). If there is an inconsistency between the Transition Plan and this Agreement, the terms of this Agreement shall prevail.

2.8.2. Initial Disclosure and Knowledge Transfer. As soon as reasonably possible, *** after the Original Effective Date, OPKO shall *** transfer to Pfizer true, accurate and complete copies of all Licensed Know-How and material documentation related to Licensed Patent Rights, in each case to the extent developed by OPKO on or prior to the Original Effective Date, by download of digital files to a secure website or e-room designated and controlled by Pfizer. To the extent that any material Licensed Know-How *** as of the Original Effective Date, OPKO shall have *** such Licensed

Know-How in a reasonably organized and complete form, and *** to Pfizer. Such Licensed Know-How shall include information to assist Pfizer to develop processes and procedures, including training, to Manufacture the ***.

2.8.3. Continuing Disclosure and Knowledge Transfer. On a ***, or more frequently at the reasonable request of a Party during the Term, each Party shall provide the JDC a written summary of all Know-How and Patent Rights that it develops to the extent such Know-How and/or Patent Rights are or are to be licensed or assigned to the other Party. During the Term, each Party shall make appropriate personnel available to the other Party at reasonable times and places and upon reasonable prior notice for the purpose of assisting the other Party to understand and use such Know-How and Patent Rights.

3. DEVELOPMENT AND COMMERCIALIZATION.

3.1. Development.

3.1.1. Development Plan.

(a) Generally. Subject to the terms and conditions of this Agreement, each of OPKO and Pfizer shall Develop Licensed Products in accordance with the amended and restated development plan attached hereto as Exhibit A (as the same may be further amended from time to time in accordance with Section 3.1.8, the "**Development Plan**"). The Development Plan, which is effective as of the Amendment Effective Date, replaces, in its entirety, the former Development Plan attached to the Agreement at the Original Execution Date, as such Development Plan may have been amended prior to the Amendment Effective Date.

(b) Development Activities for PGHD. The Parties acknowledge and agree that, as further set forth in the Development Plan and to the extent relating to the Development of Licensed Products for PGHD, OPKO will be responsible for conducting all activities, including all clinical and associated regulatory activities, as set forth in the Development Plan, subject to oversight by the JDC; *provided*, *however*, *that*, notwithstanding the foregoing, Pfizer will be responsible for (i) conducting ***, as set forth in the Development Plan, (ii) conducting the CMC Activities, including the Licensed Product CMC Activities and ***, as set forth in the Development Plan, (iii) supplying Licensed Product and Genotropin to OPKO for use in connection with OPKO conducting its activities under the Development Plan, as may be set forth in the Supply Agreement and the Quality Agreement and (iv) preparing, seeking, submitting and maintaining all regulatory filings for the BLA and all subsequent supplemental filings and Regulatory Approvals for all Compounds and Licensed Products as further set forth in Section 3.3. Further, notwithstanding any provision of this Agreement to the contrary, (A) *** over (1) all regulatory submissions and decisions in connection with any Trial for which it is serving as regulatory sponsor in accordance with the Development Plan, and (2) all regulatory submissions and decisions for the BLA and all subsequent supplemental filings and Regulatory Approvals for all Compounds and Licensed Products in accordance with Section 3.3, and (B) *** shall have sole control over all regulatory submissions and decisions in connection with any Trial for which it is serving as regulatory sponsor in accordance with the Development Plan.

3.1.2. Allocation of Costs and Expenses for PGHD. As between the Parties, the following costs for the Development of Licensed Products for PGHD shall be allocated as follows:

(a) Pre-Amendment Effective Date Period. Subject to the remainder of this Section 3.1.2, Pfizer and OPKO hereby acknowledge that, as of the Amendment Execution Date, Pfizer has invoiced OPKO for all costs and expenses incurred by Pfizer prior to the Amendment Effective Date with respect to the Development of Licensed Products under the Development Plan for which OPKO is responsible and OPKO has paid for all such costs and expenses.

(a) Post-Amendment Effective Date Period. Subject to the remainder of this Section 3.1.2, with respect to the period of time occurring after the Amendment Effective Date (the "**Post-Amendment Effective Date Period**"), the Parties shall equally share all costs (including costs incurred by Pfizer in conducting the Manufacturing Activities as set forth in Section 3.1.2(f)) of Developing a Licensed Product for PGHD in accordance with the Development Plan;

(b) Post-Marketing Commitments. Subject to the remainder of this Section 3.1.2, following the Post-Amendment Effective Date Period, the Parties shall equally share all costs of conducting any *** for a Licensed Product for PGHD ***;

(c) ***. Notwithstanding any provisions of this Section 3.1.2 to the contrary, the Parties shall equally share all costs of *** in accordance with the Development Plan, including all costs of the ***;

(d) ***. The Parties shall equally share all costs associated with conducting the *** in accordance with the Development Plan;

(a) Manufacturing Activities.

(i) Division of Manufacturing Activity Costs. With respect to Developing a Licensed Product for PGHD in accordance with the Development Plan, all costs incurred by Pfizer during the Post-Amendment Effective Date Period in connection with Pfizer (A) *** for use by OPKO in connection with conducting its activities under the Development Plan and (B) *** ((A) and (B) collectively, the "**Manufacturing Activities**"), shall be equally shared by the Parties.

(ii) Calculation of Manufacturing Activity Costs. Pfizer shall calculate its costs incurred in conducting the Manufacturing Activities as follows (A) Licensed Products will be supplied by Pfizer in connection with the Development Plan and Development Budget *** and (B) the Licensed Product CMC Activities shall be provided at ***; *provided that* in no event shall OPKO be obligated to *** for such activities.

(b) Costs to be Reimbursed to Pfizer. The Parties shall equally share all costs incurred by Pfizer in connection with ***.

3.1.3. Allocation of Costs and Expenses for AGHD. As more fully set forth in Section 3.10.3(a), the Parties *** in preparing and submitting a sBLA for a Licensed

Product for AGHD in the United States; *provided that*, *** (which ***) for inclusion in such submission.

3.1.4. Allocation of Costs and Expenses for Additional Pediatric Indication. As more fully set forth in Section 3.10.3(b), if the JDC approves an amended Development Plan and corresponding amended Development Budget for the Additional Pediatric Indication, then the costs of Developing such Licensed Product for the Additional Pediatric Indication shall be shared equally by the Parties.

3.1.5. Estimated Budget. The amended and restated budget attached hereto as Exhibit B sets forth the cost anticipated to be incurred in connection with the implementation of the Development Plan (the "**Development Budget**"), and replaces, in its entirety, the former Development Budget attached to the Agreement at the Original Execution Date, as such Development Budget may have been amended prior to the Amendment Effective Date. The Parties acknowledge and agree that (a) *** and (b) the Development Budget *** under Section 3.1.2 or Section 3.10.3, except as expressly set forth therein. The Parties shall update the Development Budget as necessary based on any amendments to the Development Plan approved by the JDC pursuant to Section 3.1.8.

3.1.6. Invoicing and Payments.

(a) Invoicing. No later than *** after the end of each Calendar Quarter during which a Party (the "**Invoicing Party**") has incurred any costs that are the responsibility of the other Party under Section 3.1.2 or, to the extent applicable, Section 3.10.3 (the "**Responsible Party**"), the Invoicing Party shall submit to the Responsible Party an invoice setting forth the amounts (or the portion of such amounts, as applicable) for which the Responsible Party is responsible. Each invoice shall be accompanied with reasonable supporting explanation for such invoiced amounts. The Responsible Party shall pay all undisputed amounts invoiced within *** of receipt of such invoice. Any adjustments with respect to any previously submitted invoice by the Invoicing Party shall be reflected in the next such invoice delivered by the Invoicing Party to the Responsible Party, such adjustments to be made in a manner consistent with the internal accounting policies of the Invoicing Party. At the end of each Calendar Quarter, or as otherwise agreed by the JDC, each Party shall submit to the JDC a report setting forth the status of the costs and expenses incurred by the Party in respect of its activities under the Development Plan in comparison to the related budget for such activities as set forth in the Development Budget.

(b) Invoice Disputes. If a Party reasonably and in good faith disputes any invoice (or portion thereof) submitted by the other Party, then the disputing Party shall notify the Invoicing Party in writing of such dispute within *** of the disputing Party's receipt of the relevant invoice and the disputing Party shall only be obligated to pay to the Invoicing Party the undisputed portion of such invoice. A written notice of dispute may also include a request for any additional information or supporting documentation that the disputing Party reasonably and in good faith believes is necessary to determine whether it is responsible for the invoiced amounts. The Invoicing Party shall reasonably and in good faith respond to such request in writing within *** of receipt thereof with the requested information and documentation or an explanation as to why such requested information and documentation is not available. The Parties shall resolve such payment dispute in accordance with the dispute resolution provisions set forth in

Sections 11.13 and 11.14. If, following final resolution of such dispute, it is determined that the disputed amounts were properly owed to the Invoicing Party, then the disputing Party shall pay such disputed amounts (plus interest calculated pursuant to Section 3.1.6(c)) to the invoicing Party within *** of final resolution of such dispute.

(c) Interest. With respect to amounts due under Section 3.1.6(a) that are not paid when due, such amounts shall accrue interest (i) if such amount is *** past due, at a rate equal to the thirty (30) day U.S. Dollar *** and (ii) if such amount is more than *** past due, at a rate equal to the thirty (30) day U.S. Dollar ***.

3.1.7. Payment *.**

(a) Funding of ***; Withdrawals. Subject to the balance of this Section 3.1.7, if, *** (or portion thereof) delivered by Pfizer in accordance with Section 3.1.6(a), then upon the written request of Pfizer, ***. If OPKO fails to pay Pfizer for any undisputed invoice (or portion thereof) within *** days of OPKO's receipt of such invoice as set forth in Section 3.1.6(a), then (i) (A) if the *** Pfizer may upon written notice to OPKO *** which amount shall bear interest in accordance with Section 3.1.6(c) through the date *** and (B) following any *** and receipt of written notice from Pfizer of such ***, then, consistent with the first sentence of this Section 3.1.7(a), the *** to Pfizer and, *** Pfizer's and OPKO's rights and responsibilities with respect to *** and payment shall be as set forth in subclause (i) hereof. Upon Pfizer's receipt of any payment from *** for amounts *** pursuant to this Section 3.1.7(a), Pfizer shall ***.

(b) Remittance of ***. Within sixty (60) days following ***, if any.

3.1.8. Changes to the Development Plan. During the Term, any changes or other amendments to the Development Plan (excluding any country-specific appendices required by Applicable Laws or any changes made in response to any communications with any Regulatory Authorities that require a submission to a Regulatory Authority, an IRB or other ethics committee, each of which shall be added to and implemented in the Development Plan in accordance with Applicable Law or instructions from Regulatory Authorities, as applicable) shall require the JDC's approval, subject to the tie-breaking provisions and limitations on tie-breaking authority set forth in Section 3.2.5. If the JDC agrees to change or otherwise amend the Development Plan so that a Party shall perform new Development or Manufacturing activities, then the Parties shall meet and discuss, in good faith, an appropriate allocation of costs with respect to such activities and shall amend the Development Budget to reflect the agreed to allocation of costs.

3.1.9. Approvals Under the Development Plan. Each Party will be responsible for obtaining all necessary Regulatory Approvals or other approvals as may be required for the implementation of those parts of the Development Plan allocated to them as their responsibility (including as required by Applicable Law) prior to commencing any Trial, and each Party will reasonably cooperate with the other Party in such regard.

3.1.10. Sponsor.

(a) Sponsorship and Responsibilities. During the Term for the Development of the Licensed Product for PGHD, OPKO will be the regulatory

sponsor of a Trial in all countries in the Territory where any Trial is conducted as specified in the Development Plan, except (i) to the extent that the JDC has determined that Pfizer should be the regulatory sponsor or (ii) with respect to the *** in which case Pfizer will be such regulatory sponsor, and except as otherwise provided herein, OPKO (or Pfizer where relevant) will have all responsibilities of such regulatory sponsor as specified under Applicable Laws and OPKO and Pfizer will have such other responsibilities as are described in the Development Plan.

(b) Compliance with the Development Plan and Applicable Laws. During the Term, OPKO shall use Commercially Reasonable Efforts to perform its obligations under the Development Plan and this Agreement in compliance with all Applicable Laws and obligations imposed by any Regulatory Authorities (including GCP) and the terms of this Agreement. During the Term, Pfizer shall use Commercially Reasonable Efforts to perform its obligations under this Agreement in compliance with all Applicable Laws and obligations imposed by any Regulatory Authorities (including GCP) and the terms of this Agreement.

3.1.11. Approved CROs and Approved Vendors.

(a) Approved CROs. Except as otherwise provided herein, OPKO may delegate any of its responsibilities described in Section 3.1.10 to one (1) or more CROs determined by the JDC (an "**Approved CRO**") pursuant to a written agreement between OPKO and such Approved CRO (a "**CRO Agreement**"). Each CRO Agreement will enable OPKO to comply with the terms hereof, including, but not limited to, in respect of Section 3.1.10(b), the terms pertaining to ownership of intellectual property and publications and treatment of Confidential Information.

(b) Approved Vendors. Except as otherwise provided herein, OPKO will be permitted to contract with one or more Vendors determined by the JDC (an "**Approved Vendor**") pursuant to a written agreement between OPKO and such Approved Vendor (a "**Vendor Agreement**"). Each Vendor Agreement will enable OPKO to comply with the terms hereof, including, but not limited to, in respect of Section 3.1.10(b), the terms pertaining to ownership of intellectual property and publications and treatment of Confidential Information.

(c) Responsibility. For clarity, OPKO will remain responsible for all its obligations under this Agreement, including if it has delegated such to an Approved CRO and/or contracted with an Approved Vendor (except to the extent any Vendor Agreement has been assigned to Pfizer or a Third Party designee of Pfizer), as if OPKO had not so delegated and/or contracted with respect to such responsibilities.

(d) Applicability to Pfizer. The terms of this Section 3.1.11 shall also apply to Pfizer in circumstances where Pfizer is a regulatory sponsor of a Trial, ***.

3.1.12. Reporting. During the conduct of the Development Plan, at JDC meetings and as otherwise requested by a Party, each Party shall provide the other Party with updates in writing with respect to its progress under the Development Plan. Each such update shall include a summary of activities under the Development Plan performed by the reporting Party since the previous JDC meeting or request, including (as applicable) a

summary of: results, information, and data generated, activities planned with respect to Development going forward (including updates regarding regulatory matters and current and future Development or regulatory plans and activities), challenges anticipated, timeline adjustments, budget updates required by Section 3.1.5 and updates regarding intellectual property issues relating to any Compound or Licensed Product.

3.1.13. Pfizer Retained Rights. Except for Development activities for which OPKO is responsible under the Development Plan or as otherwise expressly set forth in the Development Plan, Pfizer shall have sole authority over and control of the Development of Compounds and Licensed Product. *** acting in good faith, ***, then Pfizer shall have the right to provide OPKO with written notice thereof, including an explanation of the basis for Pfizer's belief. If OPKO, acting in good faith, reasonably disputes the contents of Pfizer's notice, OPKO shall have the right to deliver to Pfizer a Notice of Dispute within thirty (30) days after Pfizer's written notice. Upon Pfizer's receipt of such Notice of Dispute, the Parties shall comply with the dispute resolution provisions set forth in Sections 11.13 and 11.14 ***. If (i) *** (ii) OPKO does not deliver to Pfizer a Notice of Dispute within thirty (30) days after receipt of Pfizer's written notice or (iii) the dispute resolution process results in the confirmation *** *provided that* OPKO *** in accordance with Section 3.1.2 or Section 3.10.3.

3.2. Governance of Development Activities; Notifications to the JDC.

3.2.1. Joint Development Committee. The Parties hereby establish a joint development committee (the "**JDC**") to oversee and coordinate the overall conduct and progress of the activities set forth in the Development Plan. The JDC will continue to operate during the term of the Development Plan and ***. The JDC shall provide a forum for sharing the activities conducted, progress against timelines and results achieved under the Development Plan. Each Party, through its representatives on the JDC, shall be permitted to provide advice and commentary with respect to activities performed pursuant to the Development Plan. The JDC may establish other committees, including a joint manufacturing committee to oversee activities. Each Party shall take such advice and commentary into good faith consideration. More specifically, the JDC shall, subject to the provisions of Section 3.1.8:

(a) oversee, review and coordinate activities and budgets pursuant to the Development Plan, CMC and supply activities for clinical supply and related regulatory strategy, including (i) discussing and making suggestions in response to any notifications described in Section 3.2.4 and (ii) discussing the reports submitted by each Party to the JDC in accordance with this Agreement and otherwise monitoring the costs incurred by each Party in the conduct of their respective activities under the Development Plan;

(b) review and approve amendments and modifications to the Development Plan as contemplated herein;

(c) exchange and review Development, regulatory, Manufacturing and Commercialization updates and information, as well as disclosures of developed intellectual property; and

(d) perform, or delegate to a Party (in the JDC's discretion), such other duties as are specifically assigned to the JDC under this Agreement.

3.2.2. Membership. The JDC shall be composed of *** employees from each of Pfizer and OPKO (or such other equal number as the Parties may agree) ***. The JDC shall have at least one (1) representative from each Party with relevant decision-making authority, such that the JDC is able to effectuate decisions within the scope of its authority. Any member of the JDC may designate a substitute to attend JDC meetings upon prior written notice to the other Party. The chairperson of the JDC shall be an employee of Pfizer (the "**Chairperson**"). The Chairperson will be responsible for arranging meetings of the JDC, setting the agenda for such meetings and organizing and overseeing such meetings. Ad hoc guests who are subject to written confidentiality obligations commensurate in scope to the provisions in Section 7.2 may be invited to the JDC meetings, as mutually agreed, so long as the number of guests is reasonable and does not disrupt or delay JDC activities. Each Party may replace its JDC members with other of its employees, at any time, upon written notice to the other Party.

3.2.3. Meetings. During the performance of the Development Plan pursuant to Section 3.1, the JDC shall meet, in person (at a location mutually agreeable to the Parties), by teleconference, or by video-teleconference, at least one (1) time per ***.

3.2.4. Notifications to be Provided to the JDC.

(a) Trial Information. With regard to both New Trials and Existing Trials, OPKO shall *** summarize for the JDC for its review and input, including status and any issues related to (i) standard operating procedures, (ii) clinical sites and investigators, (iii) a subject recruitment plan, (iv) the investigator's brochure, (v) case report forms and a data management plan (and compliance therewith), (vi) an auditing plan, (vii) a monitoring plan (and compliance therewith), (viii) IND and CTA submissions and approvals, (ix) IRB approvals, and (x) reporting mechanisms.

(b) Unusual or Unforeseen Events. Each Party will promptly notify the JDC of any unforeseen or unusual events that occur in connection with the implementation of the Development Plan, including any events that may affect any of the timelines set forth therein or that may have a material impact on the success of any BLA submissions hereunder by Pfizer.

(i) Urgent Safety Measures or Serious Breaches. If either Party becomes aware of (a) any urgent safety measures taken by a Clinical Investigator to protect Subjects against any immediate hazard or (b) any serious breaches of the Development Plan or any Applicable Laws (including GCP guidelines), such Party will immediately inform the JDC.

(ii) Regulatory Inspections. Each Party will promptly notify the JDC within *** of any inspection by any Governmental Authority, including any Regulatory Authority, in connection with Manufacture or any Trial. Each Party will promptly forward to the JDC copies of any inspection findings relating to Licensed Product or this Agreement that a Site receives from any Regulatory Authority and each Party will have a right to comment on any proposed responses related to such inspections to be made to any Governmental Authorities before such responses are made.

(iii) Government Investigations. Each Party will promptly notify the JDC upon learning of any investigations by any Governmental Authority involving any Third Party conducting activities with respect to

the Development Plan, including any Approved CRO or Approved Vendor.

(iv) Notification of Error. If either Party learns of an error or omission in the conduct of the activities under the Development Plan that could call into question the validity, or otherwise compromise the quality and/or integrity, of part or all of any of such activities, or other activities conducted in connection therewith, such Party will inform the JDC in writing within *** hours of such Party learning of such error and/or omission. The members of the JDC will discuss in good faith a remediation plan to address such error within *** days of such written notification. Such remediation plan will not be effective unless and until approved by the JDC in accordance with Section 3.2.5. If the JDC approves such remediation plan, the JDC will provide the responsible Party with written notice thereof, specifying the dates on which, and the detail with which, such responsible Party will be required to update the JDC of its progress with respect thereto.

(v) Compliance with Laws. With respect to each of the foregoing Sections 3.2.4(b)(i)-(iv), the Party responsible for notifying the JDC will notify the Person to whom notice is required to comply with all Applicable Laws.

3.2.5. Decision-Making; Limitations on JDC.

(a) General. Decisions of the JDC shall be made by consensus, with the representatives of each Party having collectively one (1) vote in all decisions. Notwithstanding the creation of the JDC, each Party shall retain the rights, powers and discretion granted to it hereunder, and the JDC shall have only such rights, powers and discretion as are specifically assigned to it in this Agreement, and such rights, powers and discretion shall be subject to the terms and conditions set forth herein. Without limiting the generality of the foregoing, the JDC shall have no power to amend, modify or waive compliance with this Agreement, or take any action which, under the terms of this Agreement, requires the consent or agreement of either or both of the Parties, without having received such consent or agreement.

(b) Final Decision-Making Authority. In the event that the JDC is unable to reach a consensus decision on a matter that is within its decision-making authority within *** Business Days after it has met and used its best efforts to reach consensus with respect to such decision then, except as expressly provided to the contrary in this Agreement, including in Sections 3.1.1 and 3.10.3, such decision shall be made by the representatives of Pfizer unilaterally, and provided that Pfizer shall not have power to unilaterally resolve a dispute: ***. For all purposes under this Agreement, any decision made pursuant to this Section 3.2.5 shall be deemed to be the decision of the JDC.

3.3. Regulatory Matters. Except as contemplated by the Development Plan or pursuant to this Article 3, Pfizer shall have the sole authority over and control of all regulatory plans and strategies in respect of Compounds and Licensed Products and will own, have sole authority for, and be responsible for preparing, seeking, submitting and maintaining all regulatory filings for the BLA and all subsequent supplemental filings and Regulatory Approvals for all Compounds and Licensed Products, including preparing all reports necessary as part of a

regulatory filing, Regulatory Approval or Regulatory Exclusivity. To the extent requested by Pfizer from time to time, OPKO shall cooperate with Pfizer and take such reasonable actions to assist Pfizer in making regulatory filings and seeking and maintaining Regulatory Approval and Regulatory Exclusivity. With respect to regulatory activities of OPKO contemplated by the Development Plan:

3.3.1. Communications with Regulatory Authorities. With respect to Trials conducted by OPKO, OPKO shall promptly provide Pfizer access to a copy of any written communication received by OPKO or its representatives from any Regulatory Authority with respect to any Compound or Licensed Product. OPKO will have primary responsibility to respond to such communications; however, if any planned written responses or meetings with Regulatory Authorities relates to information that may affect any of the timelines set forth in the Development Plan or that may have a material impact on the success of any BLA submission by Pfizer, then OPKO shall also notify Pfizer in advance of all such responses or meetings with the Regulatory Authorities, whether in person or by telephone or videoconference and Pfizer shall be entitled to attend and, if appropriate and permitted under Applicable Law, participate in all such meetings with Regulatory Authorities, whether in person or by means of telecommunication; *further provided*, *however*, *that* where such communications concern the CMC Information, Pfizer will have primary responsibility to prepare responses to such communications as described further in this Section 3.3.1. During the preparation and submission of BLAs, to the extent practical, and provided that Pfizer will not be required to incur a substantive delay, OPKO shall be provided with prior notice as reasonably practicable of all proposed communications and meetings by Pfizer with Regulatory Authorities and afforded the opportunity to promptly comment on such communications (and Pfizer shall reasonably take into account such comments) and attend such meetings (unless the Parties shall reasonably determine that such participation would decrease the likelihood of obtaining any requisite Regulatory Approval); *provided*, *further*, *that* notwithstanding anything set forth above, Pfizer will have the sole decision making authority and responsibility with respect to any such communications and meetings with Regulatory Authorities. During the preparation and submission of BLAs, OPKO will provide reasonable support in the preparation of the relevant sections related to OPKO's clinical activities (including Modules 1 and 2) and provide support to the rapid response team for queries. Each Party will promptly provide the JDC with access to copies of all regulatory communications and, in circumstances during the Trials conducted by OPKO where such communications require a response that pertains to the CMC Information, OPKO will provide Pfizer with a copy of such communication promptly (and in no event more than *** Business Days) following receipt thereof so that, after having considered any OPKO comments thereto, at Pfizer's discretion, Pfizer can provide OPKO with the relevant response, which OPKO will submit to the applicable Regulatory Authority in whole without any changes, additions or deletions, except with respect to translations to local language required by Applicable Law or with Pfizer's consent, not to be unreasonably withheld. For clarity, during preparation and submission of the BLAs, if Pfizer receives any correspondence from any Regulatory Authorities, including that relates to the CMC Information, Pfizer will provide OPKO a full and complete copy, of such communication.

3.3.2. Pfizer Approval of Regulatory Filings. During the Trial activities set out in the Development Plan (other than Trial activities with respect to the ***), OPKO will be the sponsor of all INDs and CTAs and will have responsibility to submit any report or filing to any Regulatory Authority under such IND or CTA. However, if any such report or filing includes any information that may affect any of the timelines set forth in the Development Plan or that may have a material impact on the success of any BLA

submissions by Pfizer, OPKO shall provide the JDC with a copy of all such reports or filings prior to its intended date of submission and the JDC shall have the right to review, modify and approve all such reports or filings.

3.3.3. INDs and CTAs.

(a) Subject to Section 3.3.4(a) below, OPKO will be responsible for preparing, submitting and maintaining the INDs and CTAs required by Applicable Law to conduct each Trial *** and Pfizer will reasonably cooperate with OPKO in such regard. OPKO will maintain any INDs and CTAs prepared and submitted in connection with the Trial during the Term until transferred to Pfizer, pursuant to Section 3.7.

(b) In all countries where the Sites are located, Pfizer will prepare and provide to OPKO the CMC information required for all INDs and CTAs and any updates to this information after having considered any OPKO comments thereto. OPKO will submit the CMC information to the Regulatory Authorities as provided by Pfizer without any modification thereto, except with respect to translations to the local language as required by Applicable Law.

3.3.4. Clinical Trial Registries.

(a) Subject to Section 3.6, from and after the Original Effective Date, OPKO will be responsible, in consultation with Pfizer, for registering, maintaining and updating any registries pertaining to any Trial *** to the extent required by any Applicable Laws, including without limiting the foregoing, www.clinicaltrials.gov, www.clinicalstudyresults.org, and EUDRACT (collectively, the "**Clinical Trial Registries**") in all countries in the Territory.

(b) For clarity, OPKO will ensure that the information on all Clinical Trial Registries is correct, consistent and in compliance with Applicable Law.

3.3.5. IND. Subject to Section 3.6, OPKO will be responsible for opening and maintaining the IND and subsequent amendments for Trials *** set out in the Development Plan.

3.3.6. Regulatory Exclusivity. Pfizer shall use Commercially Reasonable Efforts to obtain all applicable Regulatory Approvals and Regulatory Exclusivities in each Major Market Country.

3.4. Cooperation by the Parties.

3.4.1. Generally.

(a) Each Party will, upon request, cooperate with and assist the other Party in preparing and maintaining any INDs, CTAs and BLAs for the Licensed Product, and any other submissions and/or communications with the Regulatory Authorities. Such cooperation will extend to consultation by telephone or at the cooperating Party's normal business location and the provision of information Controlled by a Party, but will not include submissions to any Regulatory Authority for the other Party. Notwithstanding anything to the contrary herein, each Party will provide the other Party with reasonable advance notice of any assistance that it needs in connection with such submissions.

(b) For clarity, upon Pfizer's request, OPKO will participate in any meetings with any Regulatory Authorities in connection with any BLA for the Licensed Product. In addition, at scheduled time intervals specified in Section 4.12, OPKO will provide Pfizer with copies of and access to the Clinical Data Package or portions thereof for use by Pfizer in connection with preparing and maintaining BLAs for the Licensed Product, and any other submissions and/or communications with the Regulatory Authorities. Subject to Article 3, Pfizer will be solely responsible for all such interactions with the Regulatory Authorities in all countries in the Territory, *provided that* Pfizer shall provide OPKO with a copy of any BLA reasonably in advance of filing to enable OPKO to comment thereon, and Pfizer, at its sole discretion, shall reasonably take into account such comments.

3.4.2. Clinical Data Package. The "**Clinical Data Package**" is defined as all information in OPKO's possession or control, and all information available through access provided to Pfizer that can be obtained by OPKO using Commercially Reasonable Efforts including all non-clinical trial and clinical trial data that relates to the Development of any Compound or Licensed Product, including provision of the following to Pfizer by OPKO (a) the definitions and attributes that comprise the Clinical Data Package, (b) the data quality management and validation processes that underlie the clinical trials in the Clinical Data Package and any database in which such Clinical Data Package is maintained, (c) the methodologies that have been utilized in converting source data into output (derived) data in connection with the Clinical Data Package, (d) the relevant statistical analysis assumptions or plans for the clinical trials in the Clinical Data Package, (e) audit history of the clinical trials in the Clinical Data Package and the database in which it is maintained, (f) all data, including appropriately de-identified subject-level records, raw datasets, compiled data (derived statistical data sets) and trial master files (including other documentation as determined by Pfizer clinical data management, including versions of medical coding dictionaries used, statistical programs to produce tables, listings, and figures, Statistical Analysis Plan, Data Management Plan, statistical programming plan and other Trial Master File documents) and (g) all databases, including the safety database and non-clinical and clinical databases used for development through the clinical trials.

3.4.3. Transfer of the Data Package.

(a) Clinical Datasets. A "**Clinical Dataset**" is defined as a dataset that consists of identifier-stripped versions of all study data at the time of transfer. OPKO will transfer Clinical Datasets in the form of SAS Export/Transport file format (XPT) files.

(b) Ancillary Documents. In order to make use of the Clinical Datasets, Pfizer will also need the following ancillary documents, which OPKO will provide, as they become available, as Portable Document Format (PDF) files:

(i) An electronic data dictionary consisting of all versions of the case report forms used in the study, annotated with the variable names and corresponding datasets; and

(ii) Other documentation as determined by Pfizer clinical data management, including versions of medical coding dictionaries used, statistical programs to produce tables/listing/graphs (TLGs), raw and

derived datasets, SAP, Data Management Plan, statistical programming plan and other Trial Master File documents.

(c) Test Data Transfer. Within *** months after study initiation, OPKO will transfer a set of test data to Pfizer. Pfizer will perform certain qualification steps to determine if the transmission meets Pfizer requirements in content and process and if the data will load successfully into the target Pfizer database. OPKO will work with Pfizer if changes are needed in the data formatting or transmission process to ensure data quality and usability. OPKO will transfer additional sets of test data if needed after such changes are made and again if there are any changes in the study variables or data collection tools during the study.

(d) Data Cleaning and Validation. After each transfer of a Clinical Dataset, Pfizer and OPKO will collaborate to ensure that the data meets appropriate quality standards. This may include data queries from Pfizer that OPKO will investigate and resolve.

(e) Transfer Schedule. The anticipated content and timing of data transfers will be agreed to by the JDC and documented in a data transfer plan.

3.4.4. Collaboration on Preparations for BLA Regulatory Submissions.

(a) At the request of the JDC, OPKO will provide to Pfizer all information required for Pfizer to meet its responsibility for BLA/MAA regulatory submissions including:

(i) Modules M1, M2 or equivalents;

(ii) Integrated Safety Database (mapped to CDISC);

(iii) Pre-inspection Visits and Interviews with OPKO during inspections;

(iv) Rapid response to queries from regulatory authorities;

(v) Clinical Dataset Transfer (test and final transfers); and

(vi) Complete Study Reports for all Phase 1, 2 and 3 Trials.

3.5. Pfizer's Right to Cross Reference. Upon Pfizer's written request, OPKO will provide each applicable Regulatory Authority with a letter of authorization for each Regulatory Authority to access any submissions of INDs or CTAs to any Regulatory Authorities made by, or on behalf of, OPKO hereunder in connection with reviewing any regulatory submission or application to any Regulatory Authority made by or behalf of Pfizer or any Third Party designated by Pfizer.

3.6. Clinical Supply of Licensed Product; Manufacturing for Clinical Supply.

3.6.1. Supply of Licensed Product; *; Assignment of *** Agreement**. For the conduct of all Existing Trials and as set forth in the Development Plan, OPKO shall be responsible for the supply of requisite quantities of Licensed Product. The Parties acknowledge and agree that OPKO may use *** to supply or have supplied to OPKO such quantities of Licensed Product. In addition, at any time that Pfizer may request, OPKO shall assign all of its rights, title and interests in and to the *** Agreement. In the

event of such an assignment, Pfizer shall thereafter be responsible for the supply of requisite quantities of Licensed Product in all Existing Trials.

3.6.2. Pfizer Supply of Licensed Product for Trials. Except as otherwise set forth in the Development Plan, for the conduct of any Trials initiated following the Original Execution Date that are conducted by ***, *** will supply or have supplied to *** such quantities of Licensed Product *** that are necessary for *** to conduct the activities that it is responsible for under the Development Plan as provided in (a) a Supply Agreement containing customary terms to be mutually agreed upon by the Parties (the "**Supply Agreement**"); *provided that* all (i) Licensed Product will be supplied by *** in connection with the Development Plan and Development Budget *** *provided that* in no event shall *** for such Licensed Product and (ii) *** will be supplied by *** at *** and (b) a quality agreement reasonably acceptable to each Party in form and substance (the "**Quality Agreement**"). *** shall also supply Licensed Product and ***. OPKO will provide the JDC at each JDC meeting with quarterly reports regarding inventory of Licensed Product and the reasonably anticipated needs for Licensed Product to ensure that Pfizer can supply OPKO with such quantities of Licensed Product at such times as required by OPKO to conduct all activities required to be conducted by OPKO under the Development Plan in compliance with the timelines set forth therein. For clarity, any use of Licensed Product that is not described in the Development Plan will be Pfizer's sole right and responsibility and OPKO will have no rights or obligations with respect thereto.

3.6.3. Diligence. If Pfizer is responsible for providing clinical supply of Licensed Product in accordance with Section 3.6.2, Pfizer shall use Commercially Reasonable Efforts with respect to the Manufacture of such Licensed Product to permit the Parties to perform their respective Development obligations in the Development Plan and hereunder without unnecessary expense or delay.

3.6.4. Use of Licensed Product. OPKO will (i) only use Licensed Product supplied by *** as agreed by the Parties, Pfizer or such Third Parties designated by Pfizer as a supplier of Licensed Product in connection with conducting activities under the Development Plan, and (ii) only use Licensed Product, and provide Licensed Product to permitted Third Party transferees, for the sole purpose of conducting activities under the Development Plan, and in accordance with the terms of this Agreement.

3.6.5. Complaints Related to Licensed Product, Devices and/or Compounds. As may be further set forth in the Supply Agreement and Quality Agreement, each Party will promptly forward to the JDC any complaints that it receives related to any Compound, Device or Licensed Product. OPKO shall notify Pfizer if it receives any complaints that may impact product safety, quality purity and effectiveness of any Compound, Device or Licensed Product used or to be used in connection with activities conducted under the Development Plan, including any Trials in respect thereof, which could result in a product recall. OPKO will respond to any complaints of which OPKO becomes aware relating to any Compound, Device or Licensed Product; *provided*, *that* Pfizer will provide reasonable cooperation in connection therewith. Notwithstanding the foregoing, if a complaint pertains to the Manufacturing, appearance or general physical characteristics of any Licensed Product or other processes at any Manufacturing facility, Pfizer will be solely responsible for responding to such complaint.

3.6.6. Recall of Licensed Products Prior to Regulatory Approval. If the Licensed Product is recalled prior to Regulatory Approval in any jurisdiction in the Territory, OPKO will be responsible for the operational execution of such recall in

connection with the activities it has conducted under the Development Agreement (but not in connection with Licensed Product being Commercialized by Pfizer or any other Licensed Product, for which Pfizer will be responsible at its expense). Pfizer will cooperate with OPKO in connection therewith. The costs for such a recall will be at Pfizer's expense, unless such recall and/or costs were based on the material breach of this Agreement, intentional misconduct, gross negligence or negligence by OPKO and/or any Third Party conducting activities on behalf of OPKO, in which case, OPKO will bear the expense of any such recall.

3.7. Regulatory Filings and Other Data.

3.7.1. Transfer of Regulatory Filings and Other Data. At Pfizer's request following such time as Regulatory Approval is granted to Pfizer, its Affiliates and/or sublicensees, for an Approved Indication in AGHD, PGHD or the Additional Pediatric Indication, for any Licensed Product in the ***, as applicable, or at such earlier time, as Pfizer may reasonably request, OPKO shall, as permitted under Applicable Laws, (i) promptly transfer to Pfizer or a designated Affiliate of Pfizer all such Regulatory Materials and right, title and interest in such Regulatory Materials, as requested by Pfizer, and (ii) thereafter provide such support and assistance to Pfizer or such Affiliate in connection with such matters regarding such Regulatory Materials as may be reasonably requested by Pfizer or such Affiliate from time to time. OPKO shall provide such Regulatory Materials in a format reasonably requested by Pfizer or such Affiliate. All Regulatory Approvals for Licensed Products for which Regulatory Approval has been granted shall be obtained and held in the name of Pfizer or a designated Affiliate of Pfizer, and Pfizer or such Affiliate shall maintain all right, title and interest in and to all such Regulatory Materials.

3.7.2. Submitting and Maintaining Regulatory Approvals. Notwithstanding anything in this Agreement or the Development Plan to the contrary, Pfizer shall have sole authority for and be responsible for promptly preparing, seeking, and submitting and for maintaining all regulatory filings and Regulatory Approvals for such Licensed Product in such jurisdiction for such Approved Indication. To the extent requested by Pfizer from time to time, OPKO shall cooperate with Pfizer and take such reasonable actions to assist Pfizer in making regulatory filings and maintaining Regulatory Approval for such Licensed Product.

3.8. Commercial Supply of Licensed Product; Manufacturing for Commercial Supply.

3.8.1. Pfizer Supply of Licensed Product. During the Term, Pfizer shall have the exclusive right to Manufacture Licensed Products for Commercialization itself or through one or more Affiliates or Third Parties selected by Pfizer in its sole discretion. Pfizer shall use Commercially Reasonable Efforts with respect to the Manufacture of Licensed Products as necessary to perform its Commercialization obligations hereunder.

3.8.2. Capacity. In the event that the materials and/or Manufacturing capacity required to Manufacture the Licensed Products is not sufficient to meet current or anticipated demand, Pfizer shall notify OPKO of such shortage and *** meet to discuss the shortage, including the proposed measures Pfizer intends to take to address such lack of capacity.

3.8.3. Safety Stock. From and after the Amendment Effective Date, unless otherwise agreed in writing by the parties, Pfizer shall create and adhere to a

commercially reasonable plan to maintain an inventory of Licensed Product to seek to meet anticipated demand (the "**Safety Stock**"). On a *** basis, Pfizer shall provide OPKO updates as to the status of the Safety Stock.

3.9. Commercialization Activities.

3.9.1. General. Subject to its diligence obligations, Pfizer shall have sole and exclusive control over all matters relating to the Commercialization of Licensed Products, including sole and exclusive control over (a) pricing of Licensed Products and (b) the negotiation of Licensed Product pricing with Regulatory Authorities and other Third Parties. *** Pfizer will use Commercially Reasonable Efforts to seek Regulatory Approval, including Price Approvals, if required, for Licensed Products in each Major Market Country. *** Pfizer will use Commercially Reasonable Efforts to Commercialize the Licensed Products in the Major Market Countries ***.

3.9.2. Branding. Pfizer or its designated Affiliates or sublicensees shall select and own all Trademarks used in connection with the Commercialization of any and all Licensed Products. OPKO and its Affiliates shall use Commercially Reasonable Efforts to not register or use, anywhere in the world, any Trademark which is confusingly similar to any Trademark used by or on behalf of Pfizer, its Affiliates or sublicensees in connection with any Licensed Product.

3.9.3. Progress Reporting. During the first *** following the date upon which the JDC is disbanded pursuant to the provisions of Section 3.2.1, Pfizer shall provide OPKO with written reports, on the ***, summarizing Pfizer's activities to Commercialize Licensed Products and providing any other information as OPKO might reasonably request regarding the Commercialization of Licensed Products. Any information or written report provided by Pfizer to OPKO pursuant to this Section 3.9.3 shall be deemed to be Pfizer's Confidential Information and subject to the provisions of Section 7.2. Thereafter, Pfizer shall continue to provide such reports ***.

3.10. Diligence.

3.10.1. Exceptions to Diligence Obligations. Notwithstanding any provisions of this Agreement to the contrary: (a) if Pfizer, an Affiliate or sublicensee of Pfizer, OPKO or a Third Party generates any safety, tolerability or other data reasonably indicating, as measured by Pfizer's safety and efficacy evaluation criteria and methodology, or signaling that a Licensed Product has or would have an unacceptable risk-benefit profile, Pfizer may take any and all actions it deems necessary or appropriate in its sole discretion to appropriately address such concerns, including putting on hold or ceasing Development or Commercialization of any effected Compound or Licensed Product, or terminating this Agreement in its entirety; and (b) in such event, Pfizer shall not be in breach of this Agreement or any obligation hereunder as a result of Pfizer taking such actions so long as Pfizer is using Commercially Reasonable Efforts to address and, to the extent practicable, remedy the safety issue in order to permit continued Commercialization.

3.10.2. Assertion of Pfizer Diligence Obligation Claims. Subject to Section 3.9.1, if OPKO reasonably believes that Pfizer is not using Commercially Reasonable Efforts with respect to its obligations to Commercialize a Licensed Product in accordance with this Agreement, then OPKO shall promptly provide to Pfizer written notice documenting in reasonable detail the reasons for such assertion. Promptly upon Pfizer's receipt of any notice of a potential alleged diligence failure ("**Diligence Issue**") pursuant

to this Section 3.10.2, Pfizer and OPKO will meet and discuss the specific nature of such Diligence Issue and seek to identify an appropriate corrective course of action. If, no later than *** days after Pfizer's receipt of such notice, (a) the Parties have not reached consensus regarding whether Pfizer has failed to satisfy its obligations pursuant to Sections 3.8-3.10, and (b) the Parties have not agreed upon an appropriate corrective course of action for such Diligence Issue, then such Diligence Issue will be escalated and resolved pursuant to the provisions set forth in Section 11.13.

3.10.3. Diligence Obligations for Additional Indications.

(a) AGHD. Upon receipt of the first Regulatory Approval (excluding any required Price Approvals) of a Licensed Product for PGHD in the United States, *** be required to support the filing and subsequent Regulatory Approval by way of a supplemental BLA ("**sBLA**") for a Licensed Product for AGHD in the United States and, if the FDA is willing to grant such meeting, attend and participate in such meeting, and ***. Without limiting the foregoing, ***; *provided that* *** for AGHD. In the event that Pfizer determines that it will, or is otherwise required to, file a sBLA for AGHD in the United States, ***. The Parties *** incurred by Pfizer in preparing and submitting such sBLA. Except as expressly set forth in this Section, *** obligation *** unless such additional activities are agreed to by the Parties in writing, in which case, the *** (unless otherwise agreed to in writing).

(b) Additional Pediatric Indication.

(i) The Parties shall work together to identify one additional pediatric indication other than PGHD (the "**Additional Pediatric Indication**") ***. If the Parties are *** on an Additional Pediatric Indication before December 1, 2020, *** following identification of the Additional Pediatric Indication, *** shall *** for such Additional Pediatric Indication that ***.

(ii) Promptly following submission to the JDC, the *** Licensed Product for the Additional Pediatric Indication. In connection therewith, the representatives of each Party to the JDC shall act reasonably and in good faith.

(iii) *** shall be shared equally by the Parties. Additionally, the Parties acknowledge and agree that Articles 3 and 4 of this Agreement contemplate that, except for the ***, OPKO shall be designated as the regulatory sponsor for all Trials set forth in the Development Plan. If the amended Development Plan approved by the JDC provides that Pfizer will be designated as the regulatory sponsor for any Trials set forth in the Development Plan, then such Development Plan will state Pfizer's obligations as the regulatory sponsor. Notwithstanding any provision of this Agreement to the contrary, including any decision-making authority at the JDC, the amended Development Plan including the Additional Pediatric Indication shall provide that Pfizer will control the preparation, submission, pursuit and maintenance of all regulatory filings for the BLA and all subsequent supplemental filings and Regulatory Approvals for the Licensed Product for the Additional Pediatric Indication in each Major Market Country.

(iv) If the *** an amended Development Plan or corresponding amended Development Budget for the Additional Pediatric Indication (provided Pfizer has complied with its obligations under Section 3.10.3(b)(i) and Section 3.10.3(b)(ii)), ***.

(v) Notwithstanding any provision of this Agreement to the contrary but in all cases subject to, and without limitation of, the obligation to act reasonably and in good faith in accordance with this Section 3.10.3(b), in no event ***.

(a) Expedited Arbitration. Any dispute or disagreement arising between Pfizer and OPKO in respect of this Section 3.10.3 may be referred by either Party for resolution through expedited arbitration in accordance with Section 11.14.

3.11. Genotropin Products. Pfizer shall have the exclusive right to Develop, Manufacture and Commercialize Genotropin Products itself or through one or more Affiliates or Third Parties selected by Pfizer in its sole discretion. For clarity, and notwithstanding anything in this Agreement to the contrary, Pfizer shall have no diligence obligations with respect to the Development, Manufacture and Commercialization of Genotropin Products. ***.

3.12. Existing Trials. Except as otherwise set forth in the Development Plan, OPKO shall continue to conduct all Trials initiated prior to the Original Execution Date (such trials, "**Existing Trials**") in accordance with the protocol, standard operating procedures and other development plans established by OPKO with respect to such Existing Trials prior to the Original Execution Date, subject to oversight by the JDC. OPKO shall keep Pfizer apprised of the progress of all such Existing Trials, engage with Regulatory Authorities, and otherwise perform its Development obligations as provided for in and in accordance with this Article 3. OPKO will provide access to all documents and electronic information currently held by OPKO or OPKO's CROs and other Vendors, related to all Existing Trials and any completed Trials, and to facilitate site visits by Pfizer. OPKO will undertake specific actions requested by Pfizer to remediate incomplete documentation and make amendments to current SOPs if, in Pfizer's opinion, these changes are required to meet regulatory requirements or will have a material impact on the success of any BLA submissions by Pfizer.

3.13. New Trials. Subject to the terms hereof, OPKO shall (and with respect to the ***) conduct all Trials initiated following the Original Execution Date (such trials "**New Trials**") in accordance with the protocols, standard operating procedures and other development plans specified by the JDC and set forth in the Development Plan or as otherwise approved by the JDC.

3.14. Pharmacovigilance and Safety Information Exchange.

3.14.1. The safety reporting units from each of the Parties will meet and will, within *** days of the Original Effective Date, agree upon the timing for establishing a written agreement for exchanging adverse event and other safety information relating to (a) the Licensed Products, and (b) adverse events attributable to CTP Technology used in other products (the "**Pharmacovigilance Agreement**"). The Pharmacovigilance Agreement will ensure that adverse event and other safety information is exchanged upon terms that will permit each Party to comply with Applicable Laws and requirements of Regulatory Authorities. This Pharmacovigilance Agreement will be established in advance of the earlier of (1) the first Regulatory Filing in any country in the Territory and

(2) the start of any clinical trial under an IND or CTA sponsored by Pfizer related to the Licensed Products.

3.14.2. Following the Original Execution Date and until such time as the Pharmacovigilance Agreement is executed, within *** Business Days of providing any notification to the JDC pursuant to Section 3.2.4, the notifying Party shall provide a copy of such notification to the other Party.

3.14.3. OPKO agrees to manage pharmacovigilance obligations for the Licensed Products in compliance with global requirements, until such time that these obligations and all needed legacy data can be transferred to Pfizer, as established in Section 3.14.1.

3.14.4. OPKO agrees to provide the JDC aggregate clinical safety data relating to the Licensed Products for the purposes of assessing potential benefit and risk. The frequency and format for this exchange, including responsible parties, shall be established by the JDC.

4. TRIAL ACTIVITIES AND RESPONSIBILITIES.

4.1. SOPs. Subject to the terms hereof, for New Trials ***, OPKO will conduct, or ensure that each Approved CRO conducts, all such New Trials in accordance with standard operating procedures (the "**SOPs**"), access to electronic copies of which will be provided by OPKO to the JDC for review prior to the initiation of each New Trial at a time to be determined by the JDC. For Existing Trials, OPKO will provide access to electronic copies of all current SOPs within ninety (90) days following the Original Effective Date. Pfizer, from time to time, may request OPKO to make amendments to current SOPs if, in Pfizer's opinion, these changes are required to meet regulatory requirements or will have a material impact on the success of any BLA submission by Pfizer. In the event of any updates to existing SOPs, or in the event that any Trial *** is not being conducted in compliance with the SOPs (as updated from time to time), OPKO shall take all such actions as may be necessary to bring such Trial into compliance with the then-current SOPs as promptly as is practicable.

4.2. Sites and Clinical Investigations.

4.2.1. Selection of Sites and Investigators.

(a) The JDC will approve the study sites to conduct each Trial *** as proposed by OPKO.

(b) OPKO will enter, and each Approved CRO will enter, into an agreement with each study site; such an agreement will be substantially in the form to be agreed upon by the Parties within *** days following approval by the JDC of the Development Plan (the "**Clinical Trial Agreement**") (upon execution of the Clinical Trial Agreement, such study site will be deemed a "**Site**"), and will provide that any Trial *** may be freely transferred or assigned to Pfizer or a designee of Pfizer without any negotiation of the CTA necessary. If a study site requires any material changes to such form Clinical Trial Agreement, OPKO will inform the JDC and seek JDC approval of such change, and the JDC will not unreasonably withhold such approval. For clarity, each Clinical Trial Agreement will specify reasonable terms, consistent with industry standards for similar agreements, and will expressly require during the period which it is effective the applicable Site and Clinical Investigator to comply with the terms hereof as if such Site and Clinical Investigator were a Party hereto, including the terms

pertaining to ownership of intellectual property and publications, treatment of Confidential Information and that the Site, the Clinical Investigators and other personnel working on any Trial at each Site have (i) GCP and other appropriate training and experience to conduct such Trial(s), including training with respect to the Development Plan; (ii) access to an adequate number of subjects that satisfy the criteria in the Development Plan to meet subject enrollment requirements for such Trial(s); (iii) any licenses, certifications and/or accreditations required by Applicable Laws; and (iv) understand the Development Plan and their obligation to comply therewith and all Applicable Laws in conducting such Trial(s). Any such representations and warranties will be made for the benefit of OPKO and Pfizer as third party beneficiaries.

(c) The Clinical Trials Agreements will also provide that the Clinical Investigators, any sub-investigators (e.g., research fellows, residents and associates) and any others required by Applicable Law at each Site complete the financial disclosure document with respect to Pfizer and OPKO, and such financial disclosure document will be substantially in the form to be agreed upon by the Parties within *** days following approval by the JDC of the final Development Plan (the "**Financial Disclosure Form**"). For clarity, if any of the foregoing individuals do not complete such Financial Disclosure Form, such individuals may not participate in, or do any work in connection with, any Trial.

4.2.2. Obligations During Trial Conduct.

(a) From and after the Original Effective Date, OPKO will conduct meetings with the Clinical Investigators (each, a "**Clinical Investigator Meeting**"), of which the JDC will be provided with reasonable advance notice and in which Pfizer will have the right (but not the obligation) to attend and participate (at Pfizer's cost). Minutes of Clinical Investigator Meetings will be made available to the JDC upon request.

(b) OPKO will provide the JDC with copies of all communications relevant to any Trial *** and provided to all Sites, and upon request of the JDC, provide the JDC with copies of any other communications between OPKO and any individual Sites and/or any Affiliate or Approved CRO and any individual Sites.

(c) If OPKO terminates a Site, OPKO will inform the JDC with the reason for such termination and if reasonably practicable, such notice will be provided reasonably in advance of such termination.

(d) OPKO will meet its CRO Trial Site Monitoring and Vendor Oversight responsibilities as established by the JDC as specified in Section 4.8.

4.3. Subjects and Informed Consent.

4.3.1. Subject Recruitment Plan. OPKO will comply with the subject recruitment plan for each Trial ***, which will be established by OPKO and communicated to the JDC, for approval by the JDC not to be unreasonably withheld, within a reasonable period of time after the Original Effective Date not to exceed ninety (90) days (the "**Subject Recruitment Plan**") in recruiting subjects to participate in such Trial. For clarity, prior to engaging in any recruiting activities, OPKO will ensure that the

applicable IRBs and/or other ethics committees approve any related materials and activities as required by the JDC and all Applicable Laws.

4.3.2. Informed Consent. OPKO will prepare the informed consent document for use in each Trial ***. OPKO will ensure that the informed consent of each subject participating in any Trial be obtained in accordance with all Applicable Laws, including completion of the informed consent document; such informed consent document for such Trial will be substantially in the form to be agreed upon by the Parties within *** days following approval by the JDC of the Development Plan (collectively, "**Informed Consent**") (upon obtaining such Informed Consent, a prospective subject will be deemed a "**Subject**"). For clarity, the Informed Consent document that each Subject signs will expressly state that each Subject understands that Pfizer is providing support for such Trial and will authorize disclosure of data and results related to such Trial to Pfizer for any purpose, subject to all Applicable Laws. For clarity, OPKO will be required to obtain Pfizer's prior written consent (which shall not be unreasonably withheld) for any subsequent material amendments to the form initially agreed upon by the Parties or for translations of such form.

4.3.3. Inclusion and Exclusion Criteria. Neither OPKO nor any of its Representatives will provide a waiver for any exclusion or inclusion criteria related to a Trial *** as specified in the Development Plan. Any changes to the exclusion or inclusion criteria will be subject to an amendment to the Development Plan to be approved by the JDC pursuant to the terms of this Agreement.

4.4. Investigator's Brochure. OPKO will prepare and maintain the investigator's brochure for the Licensed Products. OPKO will, promptly following receipt of written notice from Pfizer of the need for the most recent version of the investigator's brochure, provide Pfizer with such version of the investigator's brochure.

4.5. Data Collection and Data Management.

4.5.1. CRF. From and after the Original Effective Date, OPKO will be responsible for preparing the CRF for each Trial *** in accordance with the Development Plan. OPKO will provide the JDC with access to electronic copies of the CRFs for review by the JDC. A CRF is to be completed for each Subject and will be in electronic form, validated and in compliance with all Applicable Laws.

4.5.2. Data Management Plan.

(a) OPKO will comply with the data management plan to be agreed upon by the Parties within *** Business Days following approval by the JDC of the Development Plan (the "**Data Management Plan**"). For clarity, the Data Management Plan will provide Pfizer the right to review the Development Plan, and OPKO will agree to make modifications requested by Pfizer if they are considered by Pfizer to affect any of the timelines set forth in the Development Plan or may have a material impact on the success of any BLA submissions hereunder by Pfizer. The Data Management Plan will be agreed upon by the Parties prior to recruitment of Subjects for any future Trial.

(b) During the Term, with respect to any data collected in connection with any Trial, OPKO will ensure that such data is held in one or more appropriate facilities with information security protections (including in accordance with all Applicable Laws) including: (i) unique accounts for all

operators; (ii) cancellation of an account when an employee or other personnel terminates employment; (iii) deactivation of an account when an employee or other personnel ceases working on the Trial; (iv) required password changes at frequent intervals; and (v) regular backups of electronic data.

4.5.3. Trial Database.

(a) OPKO will promptly update the applicable trial database for the data collected from each Site for each Trial *** (each, a "**Trial Database**") upon receiving data for any such Trial from any Site, and OPKO will ensure that the Sites, promptly following receipt thereof, provide data in connection with such Trial to OPKO.

(b) OPKO will provide the JDC with access to electronic copies of such data requested by the JDC at JDC meetings and in accordance with Applicable Laws.

(c) If, at any time following the Original Effective Date, OPKO decides to change the format of the database for any such Trial, OPKO will so notify Pfizer and the Parties will cooperate to ensure that the format that OPKO selects permits Pfizer to incorporate the data from such Trial into its relevant systems and is in compliance with all Applicable Laws.

(d) OPKO will provide SAS datasets to Pfizer in accordance with specifications as defined by Pfizer in Section 4.12: (i) at such times as Pfizer may reasonably request such SAS datasets; (ii) if a safety signal is identified; and/or (iii) if a request is received from any Regulatory Authority.

(e) OPKO will maintain each Trial Database in accordance with all Applicable Laws, including ensuring that information included in such Trial Database is accurate and up-to-date.

4.5.4. Trial Master File. Promptly following the Original Effective Date, OPKO will establish and maintain a trial master file (to the extent they not already established and maintained for any applicable Trial) for any Trials *** in the format as agreed upon by the JDC (each a "**Trial Master File**"). Notwithstanding anything to the contrary herein, OPKO will not be permitted to delegate its rights and obligations pursuant to this Section 4.5.4 to any Third Parties without the prior approval of the JDC, except OPKO may delegate its rights and obligations pursuant to this Section 4.5.4 to any of its Affiliates provided that OPKO retains accountability following such delegation.

4.5.5. Source Data Verification. From and after the Original Effective Date, OPKO will be responsible for source data verification of data records according to OPKO's SOPs related to the Monitoring Plan and Vendor Oversight Plan to be agreed as specified in Section 4.8. At Pfizer's request, OPKO will provide Pfizer with copies of any OPKO reports relating to source data verification and other types of Trial audits.

4.5.6. Statistical Analysis. From and after the Original Effective Date, except as may otherwise by determined by the mutual agreement of the JDC without reference to the tie-breaking provisions of Section 3.2.5(b), OPKO will perform any statistical analysis required in accordance with the statistical analysis plan for the Trial ***, a draft of which for any applicable Trial will be attached as an agreement to the Development Plan upon mutual agreement of the Parties (the "**Statistical Analysis Plan**").

4.6. Specimens. Unless otherwise requested by Pfizer, from and after the Original Effective Date, OPKO (or its designated CRO) will test, store, or manage all biological samples and/or associated slides or blocks (collectively, "**Specimens**").

4.7. Audits.

4.7.1. From and after the Original Effective Date, OPKO will conduct quality oversight inspections and audits of the facilities and services of any CRO or other applicable Third Parties in accordance with its SOPs and pursuant to a quality assurance audit plan (the "**Auditing Plan**"), and OPKO will provide Pfizer with copies of all audit reports.

4.7.2. Notwithstanding the foregoing, Pfizer will have the right, but not the obligation, to co-audit with OPKO any sites (including any Sites), facilities and services of any CRO or other applicable Third Party pursuant to the Auditing Plan. OPKO will provide the JDC with written notice of any upcoming audits to enable Pfizer to so participate. If Pfizer chooses to co-audit pursuant to the foregoing sentence, Pfizer will provide OPKO with advance written notice thereof, and OPKO will cooperate with Pfizer with respect to such audit. For clarity, Pfizer's participation in any auditing activities will not relieve OPKO of its obligations hereunder and Pfizer will be limited to acting in a supporting capacity in any such audit.

4.7.3. From and after the Original Effective Date, Pfizer will conduct quality oversight inspections and audits of the manufacturing facilities for any Licensed Products in accordance with its internal policies.

4.8. Monitoring and Vendor Oversight. From and after the Original Effective Date, OPKO will monitor each Trial***, and share information with the JDC pertaining to monitoring such Trial, in accordance with the monitoring plan for such Trial to be agreed upon by the Parties within ninety (90) days following the Original Effective Date (each a "**Monitoring Plan**"). Within *** days following the Original Effective Date the Parties also will enter into a vendor oversight plan mutually agreeable to the Parties (a "**Vendor Oversight Plan**").

4.9. IRBs and Other Ethics Committees.

4.9.1. OPKO will be responsible for obtaining the approval of the IRBs and other ethics committees required prior to commencing, and during, the Trial *** at every Site.

4.9.2. OPKO will ensure that IRBs and such other relevant ethics committees have current registrations and accreditations as required by Applicable Law, and OPKO will provide all ethics committees, including all IRBs, and Regulatory Authorities, with all necessary documentation prior to, and during the course of, each Trial *** as required by Applicable Law.

4.9.3. From and after the Original Effective Date, OPKO will be solely responsible for responding to all queries from the IRBs and other ethics committees ***; *provided that* (a) Pfizer will make itself reasonably available to assist with any such queries, and (b) if such query relates solely to the CMC Information, Pfizer will prepare the applicable response and provide OPKO with a copy thereof.

4.9.4. The ultimate responsibility for fulfillment of all pharmacovigilance obligations resides with the IND or CTA holder and/or the marketing authorization holder according to relevant Applicable Laws.

4.10. Independent Data Monitoring Committee ("IDMC"). OPKO will establish an IDMC for each Trial *** if not already established, which will be governed by a charter substantially in the form to be agreed upon by the Parties within *** days of the Original Effective Date (the "**IDMC Charter**"). For clarity, the IDMC Charter will specify the number of members of the IDMC, the qualifications of such members, the experience of the chairman of the IDMC, details regarding open and closed sessions, including who can attend any such sessions, and information that the IDMC may share with the Parties, including that efficacy will not be disclosed to either Party until the IDMC has approved such data. OPKO will communicate any decision of the IDMC to the JDC within five (5) Business Days of such decision. OPKO will ensure that the IDMC is provided with all information and data that it requires as specified in the IDMC Charter, and Pfizer will reasonably cooperate with OPKO in such regard. OPKO will ensure that all members of the IDMC have any licenses, certifications and/or accreditations required by Applicable Laws; and understand the Development Plan and their obligation to comply therewith and all Applicable Laws in conducting such Trial(s). Any such representations and warranties will be made for the benefit of OPKO and Pfizer as third party beneficiaries. OPKO will ensure that each member completes the Financial Disclosure Form. For clarity, if any of the foregoing individuals do not complete such Financial Disclosure Form, such individuals may not participate in the IDMC.

4.11. Environmental Health and Safety.

4.11.1. In conducting each Trial ***, OPKO will comply with all Applicable Laws, including those relating to environmental, health and/or safety matters. For clarity, OPKO will be solely responsible for establishing material and specimen handling guidelines and for ensuring use of controls, including appropriate personal protective equipment, that minimize potential worker exposure, obtaining the material safety data sheets and providing the appropriate training for workers who will potentially be exposed to any Compound, Device or Licensed Product.

4.11.2. OPKO will promptly notify the JDC, in writing, of any worker claims of suspected occupational illnesses related to working with any Compounds, Devices or Licensed Products, or of any known facts or circumstances which could lead to such claims, regardless of whether such claims are received during the Term or any time thereafter. After termination of this Agreement for any reason, or expiration of this Agreement, each Party will promptly notify the other Party of any worker claims of suspected occupational illnesses related to working with any Compounds, Devices or Licensed Products during the Term, of which it has knowledge.

4.12 Trial Reports; Safety or Efficacy Data. With respect to each Trial ***, OPKO shall provide Pfizer with access to all clinical data (in a format required by Regulatory Authorities), the Trial Master File and a "topline" report, an "interim study" report, if available, and a final complete study report, as well as any other reports as required by the Development Plan. In the event that there are any additional safety or efficacy data pertaining to any Trial *** that come into the possession of OPKO after providing Pfizer with the final complete study report, OPKO will prepare and promptly provide Pfizer with a supplement to such report.

5. PAYMENTS.

5.1. Upfront Payment. The Parties hereby acknowledge that, within *** days of the Original Effective Date, Pfizer made a one-time non-refundable and non-creditable payment to OPKO of Two Hundred Eighty-Five Million U.S. Dollars ($285,000,000) (the "**Upfront Payment**").

5.2. Regulatory Milestone Payments. Pfizer shall pay to OPKO the amounts set forth below within *** days following the first occurrence of each event described below (each event, a "**Regulatory Milestone**" and each payment, a "**Regulatory Milestone Payment**"), which amounts shall be non-refundable and non-creditable against any other payments due under this Agreement.

Regulatory Milestone	**Regulatory Milestone Payment**
First achievement of *** of a Licensed Product for an Approved Indication in ***	***
First achievement of *** of a Licensed Product for an Approved Indication in ***	***
First achievement of *** of a Licensed Product for an Approved Indication ***	***
First achievement of *** of a Licensed Product for an Approved Indication in ***	***
First achievement of *** of a Licensed Product for an Approved Indication in ***	***
First achievement of *** of a Licensed Product for an Approved Indication ***	***
First achievement of *** of a Licensed Product for an Approved Indication in ***	***

For the avoidance of doubt: (a) each Regulatory Milestone Payment shall be payable only once upon first achievement of the applicable Regulatory Milestone and only on the first occurrence of the corresponding Regulatory Milestone, regardless of the number of Licensed Products achieving such Regulatory Milestone; (b) a Regulatory Milestone satisfied by a sublicensee or Affiliate of OPKO shall be deemed to have been achieved by OPKO for the purposes of this Section 5.2; and (c) to the extent any ***, which trigger a Regulatory Milestone, Regulatory Milestone Payments shall be payable in respect of each such *** as provided above. In addition, and for greater clarity, milestones shall not be paid on ***.

5.3. Royalty Payments.

5.3.1. Royalties. Subject to the provisions of Section 5.5 ***, Pfizer shall pay to OPKO royalties in the amount of the marginal rates set forth below of the aggregate Net Sales resulting from the sales of all Licensed Products in the Territory during each Pfizer Year of the applicable Royalty Term for each Licensed Product (pro-rated for any partial Pfizer Year). Each marginal royalty rate set forth in the table shall apply only to that portion of the Net Sales of a given Licensed Product in the Territory during a given Pfizer Year that falls within the indicated range.

Annual Worldwide Net Sales	**Marginal Royalty Rate**
Annual Worldwide Net Sales up to and including ***	***
Annual Worldwide Net Sales above ***, up to and including ***	***
Annual Worldwide Net Sales above ***	***

At such time as there is a commencement of the *** Profit Share ***, such that royalties are no longer payable with respect to such *** pursuant to the provisions of this Section 5.3.1, Pfizer's payment obligations under this Section 5.3.1 with respect to those *** which remain eligible for payment of royalties shall then be calculated based upon

the applicable table set forth below rather than the table set forth above for purposes of this Section 5.3.1 (pro-rated for any partial Pfizer Year).

Royalties payable only for *:**

Annual Net Sales in the * **	**Marginal Royalty Rate**
Annual Net Sales in the *** up to and including ***	***
Annual Net Sales in the *** above ***, up to and including ***	***
Annual Net Sales in the *** above ***	***

Royalties payable only for *:**

Annual Net Sales in * **	**Marginal Royalty Rate**
Annual Net Sales in *** up to and including ***	***
Annual Net Sales in *** above ***, up to and including ***	***
Annual Net Sales in *** above ***	***

Royalties payable only for ***

Annual Net Sales in * **	**Marginal Royalty Rate**
Annual Net Sales in *** up to and including ***	***
Annual Net Sales in *** above ***, up to and including ***	***
Annual Net Sales in *** above ***	***

Royalties payable only for * and ***:**

Annual Net Sales in * and *** **	**Marginal Royalty Rate**
Annual Net Sales in *** and *** up to and including ***	***
Annual Net Sales in *** and *** above ***, up to and including ***	***
Annual Net Sales in *** and *** above ***	***

Royalties payable only for * and ***:**

Annual Net Sales in * and *** **	**Marginal Royalty Rate**
Annual Net Sales in *** and *** up to and including ***	***
Annual Net Sales in *** and *** above ***, up to and including ***	***
Annual Net Sales in *** and *** above ***	***

Royalties payable only for * and ***:**

Annual Net Sales in * and *** **	**Marginal Royalty Rate**
Annual Net Sales in *** and *** up to and including ***	***
Annual Net Sales in *** and *** above ***, up to and including ***	***
Annual Net Sales in *** and *** above ***	***

5.3.2. *. For each of the *** consecutive *** with respect to which royalties are payable pursuant to Section 5.3, OPKO shall receive *** for such period for all countries in the Territory:

Year	***
*** Period	***
*** Period	***
*** Period	***

At such time as there is a commencement of the *** Profit Share Term, such that royalties are no longer payable with respect to such *** pursuant to the provisions of this Section 5.3.2, Pfizer's payment obligations under this Section 5.3.2 shall be calculated based upon the applicable table set forth below rather than the table set forth above for purposes of this Section 5.3.2. For clarity, the tables set forth below are intended only to provide for alternative *** amounts payable under this Section 5.3.2 for the *** months for which *** are payable (as compared to the table set forth above), and shall not be construed to require the payment of any additional amounts of royalty payments beyond such *** month time period.

***** payable only for *****:**

Year	***
*** Period	***
*** Period	***
*** Period	***

***** payable only for *****:**

Year	***
*** Period	***
*** Period	***
*** Period	***

***** payable only for ***:**

Year	***
*** Period	***
*** Period	***
*** Period	***

***** payable only for *** and ***:**

Year	***
*** Period	***
*** Period	***
*** Period	***

***** payable only for *** and ***:**

Year	***
*** Period	***
*** Period	***
*** Period	***

***** payable only for *** and ***:**

Year	***
*** Period	***
*** Period	***
*** Period	***

5.4. Profit Share Payments.

5.4.1. Subject to the provisions of Section 5.5, Pfizer shall pay to OPKO gross profit payments in the amount of the marginal rates set forth below of the aggregate Franchise Gross Profit in *** with respect to Licensed Product and Genotropin Product in *** during the *** Profit Share Term***, as applicable, determined as set forth below, based on the percentage of annual Franchise Net Sales attributable to Licensed Product in ***. Each marginal gross profit payment rate set forth in the table shall apply only to that portion of

the Franchise Net Sales that falls within the indicated range. Franchise Gross Profits for partial calendar years shall be determined by prorating the annual aggregate

thresholds for the relevant ***. An example calculation of gross profit payments under this Section 5.4 is set forth in Schedule 5.4.

5.4.2. Subject to the caveat in the following sentence, in addition, if there is a ***, which *** occurs not later than the *** anniversary of the commencement of the Profit Share Term ***, then following the occurrence of such *** and continuing until the ***, each threshold dollar amount set forth in the left-hand-most column of the table set out below in this Section 5.4 applicable to *** shall be reduced by an amount equal to *** which were realized in *** during the *** period immediately preceding the occurrence of such ***. Notwithstanding the foregoing, the reductions in threshold dollar amounts contemplated by the prior sentence shall not be applicable in the event that (i) Pfizer directly or indirectly *** with respect to, ***, including through the effectuation of an *** agreement *** (ii) there is a subsequent ***, and (iii) such *** period prior to the date of *** that were equal to at least *** of the worldwide Net Sales of the *** for the same *** period. If, however, (i) Pfizer directly or indirectly acquires, or obtains rights with respect to, ***, including through the effectuation of an *** agreement ***, (ii) there is a subsequent ***, and (iii) such *** period prior to the date of *** that were less than *** for the *** period, then following the occurrence of such *** and continuing until the ***, each threshold dollar amount set forth in the left-hand-most column of the table set out below in Section 5.4 applicable to *** shall be ***.

***** Profit Share:**

Annual Aggregate * Franchise Net Sales**	**Less than or equal to *** of Annual Aggregate *** Franchise Gross Profit is Attributable to Licensed Products**	**More than *** of Annual Aggregate *** Franchise Gross Profit is Attributable to Licensed Products**
Annual Aggregate *** Franchise Net Sales up to and including ***	***	***
Annual Aggregate *** Franchise Net Sales above ***, up to and including ***	***	***
Annual Aggregate *** Franchise Net Sales above ***, up to and including ***	***	***
Annual Aggregate *** Franchise Net Sales above ***	***	***

***** Profit Share:**

Annual Aggregate * Franchise Net Sales**	**Less than or equal to *** of Annual Aggregate *** Franchise Gross Profit is Attributable to Licensed Products**	**More than *** of Annual Aggregate *** Franchise Gross Profit is Attributable to Licensed Products**
Annual Aggregate *** Franchise Net Sales up to and including ***	***	***
Annual Aggregate *** Franchise Net Sales above ***, up to and including ***	***	***
Annual Aggregate *** Franchise Net Sales above ***, up to and including ***	***	***
Annual Aggregate *** Franchise Net Sales above ***	***	***

***** Profit Share:**

Annual Aggregate * Franchise Net Sales**	**Less than or equal to *** of Annual Aggregate *** Franchise Gross Profit is Attributable to Licensed Products**	**More than *** of Annual Aggregate *** Franchise Gross Profit is Attributable to Licensed Products**
Annual Aggregate *** Franchise Net Sales up to and including ***	***	***
Annual Aggregate *** Franchise Net Sales above ***, up to and including ***	***	***
Annual Aggregate *** Franchise Net Sales above ***, up to and including ***	***	***
Annual Aggregate *** Franchise Net Sales above ***	***	***

5.5. Royalty and Profit Share Payment Adjustments, Statements and Payments.

5.5.1. Adjustments. The following adjustments shall be made, on a Licensed Product-by-Licensed Product and country-by-country basis, to the royalties payable pursuant to Section 5.3 and the gross profit payments payable pursuant to Section 5.4:

(a) **No Adjustment for OPKO Third Party Agreements**. Subject to Section 3.1.2, OPKO shall be solely responsible for (i) all obligations (including any royalty or other obligations that relate to the Licensed Technology) under its agreements with Third Parties that are in effect as of the Original Effective Date or that OPKO enters into during the Term, and (ii) all payments to inventors (other than inventors that are Representatives of Pfizer) of the Licensed Technology, including payments under inventorship compensation laws.

(b) **Third Party Patents**. If Pfizer, in consultation with OPKO, reasonably (i) determines it is necessary or reasonably useful to obtain a license from a Third Party in order to Develop, Manufacture, Commercialize or use a Licensed Product in a *** in the Territory and to pay a royalty or other consideration under such license (including in connection with the settlement of a patent infringement claim), or (ii) is or becomes subject to a final court or other binding order or ruling requiring any payments, including the payment of a royalty to a Third Party holder of Patent Rights in respect of sales of any Licensed Product in a *** in the Territory, then, without limiting OPKO's obligations under Section 10.3, the amount of Pfizer, its Affiliates or its sublicensee royalty payments under Section 5.3 with respect to Net Sales for such Licensed Product in such ***, as well as gross profit payments under Section 5.4 with respect to Franchise Gross Profits in such ***, shall each be reduced by *** of the amounts payable and actually paid to Third Parties pursuant to any such Third Party license or such order, such reduction to continue until all such amounts have been expended, provided the reduction shall not exceed *** of the amounts payable to OPKO in any Calendar Quarter.

5.5.2. Cumulative Royalties and Gross Profit Payments. The obligation to pay royalties and/or gross profit payments under this Agreement shall be imposed only once with respect to any sale of any Licensed Product.

5.5.3. Royalty and Gross Profit Payment Statements and Payments.

(a) Within *** days of the end of each Calendar Quarter, Pfizer shall deliver to OPKO a report setting forth, for the most recent Pfizer Quarter ending during such Calendar Quarter, the following information, on a Licensed Product-by-Licensed Product, Genotropin Product-by-Genotropin Product, country-by-country, and Territory-wide basis: (a) Net Sales of each Licensed Product and Genotropin Product, (b) Franchise Gross Profits with respect to each Licensed Product and Genotropin Product, (c) the basis for any adjustments to the royalty or gross profit payment payable for the sale of any such Licensed Product and Genotropin Product and (d) the royalty or gross profit payment due hereunder for the sale of each such Licensed Product or Genotropin Product. No such report shall be due for any Licensed Product or Genotropin Products (i) before the First Commercial Sale of a Licensed Product in the *** or (ii) after the Royalty Term and Profit Share Term for such Licensed Product has terminated in *** in the Territory. The total royalty and gross profit payment due and payable for the sale of all Licensed Products during a Pfizer Quarter shall be paid within *** days following the end of such Calendar Quarter. Any adjustments with respect to the calculation of any amount of royalties and/or gross profit which were included in a previously submitted report delivered pursuant to this Section 5.5.3(a) shall be reflected in the next such report delivered by Pfizer to OPKO, such adjustments to be made in a manner consistent with the internal accounting policies of Pfizer.

(b) *** shall be paid as follows: At the end of the *** period in respect of which a *** is payable, Pfizer shall pay to OPKO within *** days after the end of the *** period in question, and assuming the difference is a positive number, the difference between (i) the applicable *** and (ii) the aggregate amount of all the royalties due and payable to OPKO for the *** period actually paid to OPKO in such period.

5.6. *.** With respect to amounts due or otherwise payable to *** by *** in connection with this Agreement, *** in connection with this Agreement.

5.7. Taxes and Payments.

5.7.1. Taxes and Withholding. It is understood and agreed between the Parties that any payments made under this Agreement are exclusive of any value added or similar tax ("**VAT**"), which shall be added thereon as applicable. Where VAT is properly added to a payment made under this Agreement, the Party making the payment will pay the amount of VAT only on receipt of a valid tax invoice issued in accordance with the laws and regulations of the country in which the VAT is chargeable. In addition, in the event any payments made by Pfizer pursuant to this Agreement become subject to withholding taxes under the Applicable Laws or regulations of any jurisdiction or Governmental Authority, Pfizer shall: (i) deduct and withhold the amount of such taxes for the account of OPKO to the extent required by Applicable Laws or regulations and such amounts payable to OPKO shall be reduced by the amount of taxes deducted and withheld; (ii) pay the amounts of such taxes to the proper Governmental Authority in a timely manner; (iii) transmit to OPKO an official tax certificate or other evidence of such tax obligations together with proof of payment from the relevant Governmental Authority of all amounts deducted and withheld sufficient to enable OPKO, in OPKO's good faith opinion, to claim such payment of taxes; and (iv) cooperate with OPKO in any way reasonably required to obtain available reductions, credits and/or refund of such taxes. Any such withholding taxes required under Applicable Laws or regulations to be paid or withheld shall be an expense of, and borne solely by, OPKO. In order to assist Pfizer in its cooperation referred to in clause (iv) of the foregoing sentence, OPKO shall provide Pfizer with a valid Form W-8BEN-E, Certificate of Status of Beneficial Owner for United States Tax Withholding and Reporting (Entities), certifying that OPKO is the beneficial owner of the Payments within the meaning of the tax treaty in force between Ireland and the United States (the "**Treaty**").

5.7.2. Currency. All amounts payable and calculations under this Agreement shall be in United States dollars. As applicable, Net Sales, Gross Profits and any royalty or gross profit payment deductions shall be translated into United States dollars at the exchange rate used by Pfizer, in the ordinary course, for public financial accounting purposes. If, due to restrictions or prohibitions imposed by national or international authority, a given payment cannot be made as provided in this Section 5.7.2, the Parties shall consult with a view to finding a prompt and acceptable solution. If the Parties are unable to identify a mutually acceptable solution regarding such payment, then Pfizer may elect, in its sole discretion, to deliver such payment in the relevant jurisdiction and in the local currency of the relevant jurisdiction.

5.7.3. Method of Payment. Each payment hereunder shall be made by electronic transfer in immediately available funds via either a bank wire transfer, an ACH (automated clearing house) mechanism or any other means of electronic funds transfer, at the Party to whom payment is due's election, to the bank account as set forth below or as designated by such Party in writing to the other Party at least *** days before the payment is due:

***	***
***	***
***	***
***	***
***	***
***	***

***	***
***	***
***	***
***	***
***	***
***	***
***	***

5.8. Inspection of Records.

5.8.1. Record Keeping. Each Party shall keep and shall cause its Affiliates and sublicensees to keep books and accounts of record setting forth gross sales of the Licensed Product and Genotropin Products, Net Sales, expenses, and COGS on a *** basis sufficient to enable the calculation of amounts payable hereunder to be verified, as well as books and records of the costs and expenses associated with Development activities. Each Party and its Affiliates and sublicensees shall maintain such records during the Term and for a period of at least *** after the final payment has been made under the Agreement.

5.8.2. Audits. Each Party, upon *** days' prior notice from the other Party (the " **Auditing Party**"), shall permit an independent certified public accounting firm of nationally-recognized standing selected by the Auditing Party and reasonably acceptable to the other Party (the "**Audited Party**") to examine, at the Auditing Party's sole expense, the relevant books and records of the Audited Party and its Affiliates as may be reasonably necessary to verify calculation of and the amounts reported by the Audited Party in accordance with Section 5.5, the payment of royalties and gross profit payments hereunder, and to confirm the costs and expenses of each Party associated with Development activities. An examination by either Party under this Section 5.8.2 shall not occur more than *** in any calendar year and shall be limited to the pertinent books and records for any calendar year ending not more than *** before the date of the request. The accounting firm shall be provided access to such books and records at the Audited Party's or its Affiliates' facility(ies) where such books and records are normally kept and such examination shall be conducted during the Audited Party's normal business hours. The Audited Party may require the accounting firm to sign a reasonably acceptable non-disclosure agreement before providing the accounting firm with access to the Audited Party's or its Affiliates' facilities or records. Upon completion of the audit, the accounting firm shall provide both Pfizer and OPKO a written report disclosing any discrepancies in the reports submitted the Audited Party and, in each case, specific details concerning any discrepancies. No other information shall be provided to the Auditing Party.

5.8.3. Overpayments/Underpayments. If, after conducting an audit pursuant to Section 5.8.2, the applicable accounting firm concludes that additional royalties or gross profit payments were due to OPKO, then Pfizer will pay to OPKO the additional royalties or gross profit payments within *** days of the date Pfizer receives such accountant's written report. Further, if the amount of such underpayments exceeds more than *** of the amount that was properly payable to OPKO, then Pfizer shall reimburse OPKO for

OPKO's out-of-pocket costs in connection with the audit. If the accounting firm concludes that Pfizer overpaid royalties or gross profit payments to OPKO, then OPKO shall refund such overpayments to Pfizer within *** days of the date OPKO receives such accountant's written report.

5.9. Confidentiality. Notwithstanding any provision of this Agreement to the contrary, all reports and financial information of Pfizer, its Affiliates or its sublicensees which are provided to or subject to review by OPKO under this Section 5.9 shall be deemed to be Pfizer's Confidential Information and subject to the provisions of Article 7.

5.10. No Guarantee of Success. Pfizer and OPKO acknowledge and agree that nothing in this Agreement will be construed as representing an estimate or projection of (i) the successful Development or Commercialization of any Licensed Product under this Agreement, (ii) the number of Licensed Products that will or may be successfully Developed or Commercialized under this Agreement, (iii) anticipated sales or the actual value of any Licensed Products that may be successfully Developed or Commercialized under this Agreement or (iv) the damages, if any, that may be payable if this Agreement is terminated for any reason. Pfizer makes no representation, warranty or covenant, either express or implied, that (A) it will successfully Commercialize or continue to Commercialize any Licensed Product in any country, (B) if Commercialized, that any Licensed Product will achieve any particular sales level, whether in any individual country or cumulatively throughout the Territory, or (C) Pfizer will devote, or cause to be devoted, any level of diligence or resources to Developing or Commercializing any Licensed Product in any country, or in the Territory in general, other than is expressly required under Article 3.

6. INTELLECTUAL PROPERTY.

6.1. Ownership and Inventorship.

6.1.1. Pre-Existing Intellectual Property. Subject to the licenses granted pursuant to Article 2, and except for the Intellectual Property Rights assigned to Pfizer pursuant to Section 6.2.2, each Party shall retain all right, title and interest in and to any Intellectual Property Rights that are Controlled by such Party prior to the Original Effective Date, or that are Controlled by such Party on or after the Original Effective Date and are outside the scope of this Agreement. For the avoidance of doubt, as between the Parties, OPKO shall retain sole and exclusive ownership and all right, title and interest in and to all Licensed OPKO Core Patents and the CTP Technology.

6.1.2. Developed Intellectual Property.

(a) As between the Parties, except for Licensed OPKO Core Patents, Pfizer shall own all right, title and interest in and to any Intellectual Property Rights conceived by Pfizer or its Affiliates, subcontractors or sublicensees in the course of conducting Pfizer's activities and rights under this Agreement, and that do not name any inventors having an obligation of assignment to OPKO at the time such intellectual property is conceived, discovered, developed or otherwise made (collectively herein, "**Pfizer Developed IP**").

(b) As between the Parties, OPKO shall own and retain all right, title and interest in and to any Intellectual Property Rights conceived, developed or otherwise first made or reduced to practice by OPKO or its Affiliates, subcontractors or sublicensees in the course of conducting OPKO's activities and rights under this Agreement, and that do not name any inventors having an

obligation of assignment to Pfizer at the time such intellectual property is conceived, discovered, developed or otherwise made (collectively herein, "**OPKO Developed IP**").

(c) Except for the Licensed OPKO Core Patents, the Parties shall jointly own all Intellectual Property Rights conceived, developed or otherwise first made or reduced to practice during the course of the Development, Manufacturing or Commercialization of the Compound or Licensed Products hereunder, and that name any inventors having an obligation of assignment to Pfizer and any inventors having an obligation of assignment to OPKO at the time such intellectual property is conceived, discovered, developed or otherwise made (collectively herein, "**Joint Developed IP**").

(d) For the avoidance of doubt, OPKO Developed IP and OPKO's rights in and to any Joint Developed IP shall be deemed and treated as Licensed Technology licensed by OPKO under Section 2.1 of this Agreement to the extent such OPKO Developed IP and Joint Developed IP relate to Licensed Product.

(e) For purposes of this Section 6.1.2, inventorship shall be determined in accordance with applicable United States intellectual property laws, regardless of the country in which such intellectual property is conceived, discovered, developed or otherwise made.

(f) With regard to intellectual property conceived, discovered, developed or otherwise made or reduced to practice during the course of the Development, Manufacturing or Commercialization of the Compound or Licensed Products, each Party shall promptly notify the other Party of any such intellectual property of which it becomes aware, and the Parties shall confer in a timely manner in order to take such actions as may be reasonably necessary to protect such intellectual property, including but not limited to filing for patent protection.

6.2. Trademarks.

6.2.1. All Trademarks filed in the Territory shall be owned by Pfizer, and applications for registration of such Trademarks shall be filed and prosecuted by Pfizer with reasonable assistance from OPKO, if necessary. All costs of the filing of applications for registration of Trademarks in the Territory shall be borne solely by Pfizer.

6.2.2. Effective as of the Original Effective Date, OPKO hereby transfers, releases and assigns to Pfizer, all right, title and interest in and to the Trademark LAGOVA and any associated trademarks, logos, copyrights and domain names related thereto, together with (1) the goodwill associated therewith, and (2) all common law rights in the marks and associated Intellectual Property Rights, for its own use and behalf and for the use and behalf of its successors, assigns, licensees and other legal representatives.

6.3. Patent Prosecution and Maintenance.

6.3.1. Prosecution and Maintenance of Licensed OPKO Core Patents and OPKO Developed IP.

(a) **First Right to File, Prosecute and Maintain**. Subject to Pfizer's rights set forth in Section 6.3.1(b) below, OPKO shall have the first right, but not the obligation, to file, prosecute and maintain the Licensed OPKO Core Patents and the OPKO Developed IP (together, "**OPKO Prosecuted IP**") throughout the world, using outside patent counsel, patent agents and an annuity service of OPKO's choice that are reasonably acceptable to Pfizer. For avoidance of doubt, nothing herein shall be construed to give OPKO the right to use Pfizer's Confidential Information in prosecuting OPKO Prosecuted IP or in connection with such prosecution, or prosecute Licensed hGH-Specific Patents (except as otherwise provided with respect to certain continuations, continuations-in part and divisionals pursuant to Section 6.3.2(d)), without Pfizer's prior written consent. At least forty-five (45) calendar days prior to the applicable date for national stage filing of any international patent application filed under the Patent Cooperation Treaty that is a OPKO Prosecuted IP, OPKO shall provide Pfizer with a list of countries and regions into which OPKO intends to file such national stage applications. This list shall include at least the Major Market Countries. Pfizer may request that OPKO file such national stage applications in one or more additional countries. Except as provided in Section 6.3.1(b), OPKO shall retain the sole right and responsibility for prosecuting, maintaining and defending the OPKO Prosecuted IP filed under this Section 6.3.1. OPKO shall be responsible for *** and Pfizer shall be responsible for *** of direct out-of-pocket costs incurred in such activities; *provided*, *however*, *that* if Pfizer provides a written request to OPKO that OPKO file the OPKO Prosecuted IP in a jurisdiction outside the Major Market Countries, *** shall be responsible for *** of direct out-of-pocket costs (including any required translation costs) incurred in such activities.

(b) **Review and Comment.** OPKO shall keep Pfizer advised on the status of the prosecution and maintenance of all Licensed Products and Compounds of the OPKO Prosecuted IP in the ordinary course of patent prosecution and in such manner as OPKO or OPKO's counsel and/or management is informed. OPKO shall provide quarterly docket reports as well as updated docket reports as requested by Pfizer for all Licensed Product and Compounds of the OPKO Prosecuted IP. For the Major Market Countries, and any other countries or patent offices specifically requested in writing by Pfizer, OPKO shall allow Pfizer a reasonable opportunity and reasonable time to review and comment regarding substantive communications from the relevant patent offices or Governmental Authorities and drafts of any responses or other proposed substantive filings before any such filings are submitted to any relevant patent offices or Governmental Authorities, and OPKO shall consider in good faith any reasonable comments offered by Pfizer in preparing any final filings to be submitted to any relevant patent offices or Governmental Authorities.

(c) **OPKO Election to Not Prosecute or Maintain**. If OPKO at any time abandons or declines to continue prosecution or maintenance of the patents and applications in a particular country for any Licensed Product and Compounds of the OPKO Prosecuted IP, OPKO shall provide Pfizer with forty-five (45) days prior written notice to such effect, and OPKO shall have no responsibility with respect to the prosecution or maintenance of the applicable Patent Right and no responsibility for any expenses incurred in connection with such Patent Right after the end of such forty-five (45) day period. If Pfizer gives written notice to OPKO before the end of such forty-five (45) day period that Pfizer elects to

continue prosecution or maintenance, (a) OPKO, upon Pfizer's request, shall make reasonable efforts to timely execute such documents and perform such acts, at Pfizer's expense, as may be reasonably necessary to permit Pfizer to prosecute and maintain such Patent Right at its sole expense, (b) Pfizer shall keep OPKO advised on the status of the prosecution and maintenance of all such Patent Rights annually and at other times as reasonably requested by OPKO, and (c) it is agreed that Pfizer may use internal patent counsel, filing clerks and paralegals employed by Pfizer for such activities, including for coordination of worldwide filings of such Patent Rights, for prosecution before the European Patent Office, and for direction of instructing U.S. outside counsel and ex-U.S. patent agents, including providing draft applications and responses, and that Pfizer may employ its preferred patent agents and/or members of the "Pfizer Legal Alliance" to conduct such activities as required for U.S. and ex-U.S. prosecution. If Pfizer does not give written notice to OPKO before the end of such forty-five (45) day period that Pfizer elects to continue prosecution or maintenance of such Patent Right, OPKO shall be entitled to allow such Patent Right to lapse. For avoidance of doubt, nothing herein shall be construed to give Pfizer the right to use OPKO's Confidential Information in prosecuting OPKO Prosecuted IP or in connection with such prosecution without OPKO's prior written consent.

(d) **Patent Term Restoration and Extension**. Subject to Pfizer's rights as provided in Section 6.3.2(e), OPKO shall have the exclusive right, but not the obligation, to seek patent term extensions, supplemental protection certificates and the like available under Applicable Law, including 35 U.S.C. § 156 and applicable foreign counterparts, in any country in the Territory in relation to Licensed Product and Compounds of the OPKO Prosecuted IP. OPKO and Pfizer will cooperate in connection with all such activities. OPKO will give due consideration to all suggestions and comments of Pfizer regarding any such activities, but in the event of a disagreement between the Parties, OPKO will have the final decision-making authority; *provided*, *however*, *that* OPKO will seek (or will allow Pfizer to seek) to extend, including through the use of supplemental protection certificates and the like, any OPKO Prosecuted IP at Pfizer's request unless, in OPKO's reasonable legal determination, such OPKO Prosecuted IP may not be extended under Applicable Law without limiting OPKO's right to extend any other Patent Right.

(e) **European Patents with Unitary Effect and Jurisdiction of European Unified Patent Court**. OPKO shall have the exclusive right, but not the obligation, to determine in relation to the OPKO Prosecuted IP whether any Patent Right sought in Europe shall be obtained as a national patent of a European state, or as a European patent with unitary effect, including whether to validate a European patent as a national patent or a patent with unitary effect. Where OPKO has the first or sole right to enforce any Patent Right under this Agreement, unless such right to enforce has passed to Pfizer, OPKO shall have the sole right, at any relevant time in the prosecution or enforcement of such Patent Right, to determine whether to subject such Patent Right to the jurisdiction of the Unified Patent Court, including with respect to any infringement or nullity action, and with respect to any decision whether to opt-in or opt-out of such jurisdiction. OPKO and Pfizer shall cooperate in connection with all such activities, taking such action in Pfizer's name if so required. OPKO, its agents and attorneys will give due consideration to all suggestions and comments of Pfizer regarding such

determinations, but in the event of a disagreement between the Parties, OPKO shall have the final decision-making authority.

(f) For the avoidance of doubt, OPKO shall have no obligations to Pfizer with regard to the prosecution and maintenance of OPKO Prosecuted IP as provided in Subsections 6.3.1(a)-(e), and Pfizer shall have no rights with regard to the prosecution and maintenance of OPKO Prosecuted IP as provided in Subsections 6.3.1(a)-(e), to the extent such OPKO Prosecuted IP does not claim or otherwise impact Intellectual Property Rights associated with the Compounds and/or the Licensed Products.

6.3.2. Prosecution and Maintenance of Licensed hGH-Specific Patents and Pfizer Developed IP.

(a) **First Right to File, Prosecute and Maintain**. Subject to OPKO's rights set forth in Section 6.3.2(c) below, Pfizer shall have the first right, but not the obligation, to file, prosecute and maintain the Licensed hGH-Specific Patents and Pfizer Developed IP (together, "**Pfizer Prosecuted IP**") throughout the world, using outside patent counsel, patent agents and an annuity service of Pfizer's choice that are reasonably acceptable to OPKO. It is agreed that Pfizer may use internal patent counsel, filing clerks and paralegals employed by Pfizer for such activities, including for coordinating worldwide filings of such Patent Rights, for prosecution before the European Patent Office, and for directly instructing U.S. outside counsel and ex-U.S. patent agents, including providing draft applications and responses. It is also agreed that Pfizer may employ its preferred patent agents and/or members of the "Pfizer Legal Alliance" to conduct such activities as required for U.S. and ex-U.S. prosecution. For avoidance of doubt, nothing herein shall be construed to give Pfizer the right to use OPKO's Confidential Information or prosecute Licensed OPKO Core Patents in prosecuting Pfizer Prosecuted IP or in connection with such prosecution without OPKO's prior written consent. At least forty-five (45) calendar days prior to the applicable date for national stage filing of any international patent application filed under the Patent Cooperation Treaty that is a Licensed hGH-Specific Patents or Pfizer Developed IP, Pfizer shall provide OPKO with a list of countries and regions in which Pfizer intends to file such national stage applications. This list shall include at least the Major Market Countries. OPKO may request that Pfizer file such national stage applications in one or more additional countries. Except as provided in Section 6.3.1(c), Pfizer shall retain the sole right and responsibility for prosecuting, maintaining and defending the Pfizer Prosecuted IP filed under this Section 6.3.2(a). *** shall be responsible for *** of direct out-of-pocket costs incurred in such activities.

(b) **Review and Comment.** Pfizer shall keep OPKO advised on the status of the prosecution and maintenance of all Pfizer Prosecuted IP in the ordinary course of patent prosecution and in such manner as Pfizer or Pfizer counsel and/or management is informed. Pfizer shall provide quarterly docket reports as well as updated docket reports as requested by OPKO. For the Major Market Countries, and any other countries or patent offices specifically requested in writing by OPKO, Pfizer shall allow OPKO a reasonable opportunity and reasonable time to review and comment regarding substantive communications from the relevant patent offices or Governmental Authorities and drafts of any responses or other proposed substantive filings before any such filings are

submitted to any relevant patent offices or Governmental Authorities, and Pfizer shall consider in good faith any reasonable comments offered by OPKO in preparing any final filings to be submitted to any relevant patent offices or Governmental Authorities.

(c) **Pfizer Election to Not Prosecute or Maintain**. If Pfizer makes a decision to abandon or declines to continue prosecution or maintenance of the patents and applications in a particular country for any Pfizer Prosecuted IP, Pfizer shall provide OPKO with forty-five (45) days prior written notice to such effect, and Pfizer shall have no responsibility with respect to the prosecution or maintenance of the applicable Patent Right and no responsibility for any expenses incurred in connection with such Patent Right after the end of such forty-five (45) day period. If OPKO gives written notice to Pfizer before the end of such forty-five (45) day period that OPKO elects to continue prosecution or maintenance, (a) Pfizer, upon OPKO's request, shall make reasonable efforts to timely execute such documents and perform such acts, at OPKO's expense, as may be reasonably necessary to permit OPKO to prosecute and maintain such Patent Right at its sole expense and (b) OPKO shall keep Pfizer advised on the status of the prosecution and maintenance of all such Patent Rights annually and at other times as reasonably requested by Pfizer. If OPKO does not give written notice to Pfizer before the end of such forty-five (45) day period that OPKO elects to continue prosecution or maintenance of such Patent Right, Pfizer shall be entitled to allow such Patent Right to lapse. For avoidance of doubt, nothing herein shall be construed to give OPKO the right to use Pfizer's Confidential Information in prosecuting Pfizer Prosecuted IP or in connection with such prosecution without Pfizer's prior written consent.

(d) **Certain Continuations or Divisionals of Licensed hGH-Specific Patents Filed by OPKO**. If OPKO believes that there is subject matter in a Licensed hGH-Specific Patent which can form the basis of a patent application which would be considered a Licensed OPKO Core Patent or a Patent Right unrelated to the Compound or Licensed Product, and OPKO wishes to file a continuation, continuation-in-part or divisional application relating to such subject matter, OPKO shall communicate this to Pfizer and provide a copy of such application to Pfizer prior to the filing of this application, and after the application has been filed all official correspondence and draft responses thereto at least ten (10) Business Days before such responses are intended to be filed. Pfizer shall have the opportunity to comment on this application and the draft responses, and such comments shall be reasonably considered and addressed by OPKO. After communication with and review by Pfizer, OPKO shall have the sole right, but not the obligation to prosecute such applications throughout the world claiming priority to, or the benefit, of a Licensed hGH-Specific Patent as outlined above, provided that the claims are not directed toward the Compound or any Licensed Product.

(e) **Patent Term Restoration and Extension**. Upon any Regulatory Approval, Pfizer shall have the exclusive right, but not the obligation, to seek, in OPKO's name if so required, patent term extensions, supplemental protection certificates and the like available under Applicable Law, including 35 U.S.C. § 156 and applicable foreign counterparts, in any country in the Territory in relation to the Pfizer Prosecuted IP. OPKO shall have no right to seek patent term extensions, supplemental protection certificates and the like as provided in

Section 6.3.1(d) unless (i) Pfizer, in its reasonable discretion, determines not to seek such patent term extensions, supplemental protection certificates and the like in relation to the Pfizer Prosecuted IP, or (ii) the applicable time period to seek such patent term extensions, supplemental protection certificates and the like in relation to the Pfizer Prosecuted IP has lapsed or expired. Pfizer and OPKO will cooperate in connection with all such activities. Pfizer will give due consideration to all suggestions and comments of OPKO regarding any such activities, but in the event of a disagreement between the Parties, Pfizer will have the final decision-making authority; *provided*, *however*, *that* Pfizer will seek (or will allow OPKO to seek) to extend, including through the use of supplemental protection certificates and the like, any Pfizer Prosecuted IP at OPKO's request unless in Pfizer's reasonable legal determination such Pfizer Prosecuted IP may not be extended under Applicable Law without limiting Pfizer's right to extend any other Patent Right.

(f) **European Patents with Unitary Effect and Jurisdiction of European Unified Patent Court**. Pfizer shall have the exclusive right, but not the obligation, to determine in relation to the Pfizer Prosecuted IP whether any Patent Right sought in Europe shall be obtained as a national patent of a European state, or as a European patent with unitary effect, including whether to validate a European patent as a national patent or a patent with unitary effect. Where Pfizer has the first or sole right to enforce any Patent Right under this Agreement, unless such right to enforce has passed to OPKO, Pfizer shall have the sole right, at any relevant time in the prosecution or enforcement of such Patent Right, to determine whether to subject such Patent Right to the jurisdiction of the Unified Patent Court, including with respect to any infringement or nullity action, and with respect to any decision whether to opt-in or opt-out of such jurisdiction. Pfizer and OPKO shall cooperate in connection with all such activities, taking such action in OPKO's name if so required. Pfizer, its agents and attorneys will give due consideration to all suggestions and comments of OPKO regarding such determinations, but in the event of a disagreement between the Parties, Pfizer shall have the final decision-making authority.

6.3.3. Liability. To the extent that a Party is obtaining, prosecuting or maintaining a Patent Right or otherwise exercising its rights under this Section 6.3.3, neither such Party, nor any of its Affiliates, employees, agents or representatives, shall be liable to the other Party in respect of any act, omission, default or neglect on the part of any such Affiliate, employee, agent or representative in connection with such activities undertaken in good faith.

6.3.4. Cooperation. Each Party shall provide the other Party with all reasonable assistance and cooperation in the patent prosecution and extension efforts in accordance with this Section 6.3.4, including by providing any necessary powers of attorney and executing any other required documents or instruments for such prosecution or extension applications.

6.3.5. Status Updates. Each Party shall provide the other Party with a written status update on the Licensed Patent Rights, including any updates to the list in Schedule 1.98, at least once every ***, or earlier upon the reasonable request of the other Party.

6.4. Enforcement and Defense of Patent Rights.

6.4.1. Notification. Each Party will promptly notify the other Party in writing of any actual, potential, suspected or threatened infringement, misappropriation or other violation by a Third Party of any Licensed Patent Right of which it becomes aware ("**Third Party Infringement**").

6.4.2. Control.

(a) Except as otherwise provided in this Section 6.4.2(a), Pfizer will have the sole right, but not the obligation, to institute litigation or take other steps to remedy Third Party Infringement of any Licensed Patent Rights other than Licensed OPKO Core Patents, and any such litigation or steps will be at Pfizer's expense; *provided that* any recoveries resulting from such litigation or steps relating to Third Party Infringement, after deducting Pfizer's out of pocket expenses (including counsel fees and expenses) in pursuing such claim, will be deemed Net Sales of Licensed Products during the Royalty Term and Franchise Gross Profit during the Profit Share Term. Pfizer will not, without the prior written consent of OPKO, enter into any compromise or settlement relating to such litigation that (i) admits the invalidity or unenforceability of any Licensed Patent Right or Pfizer Developed CTP IP, (ii) requires Pfizer to abandon any Licensed Patent Right or Pfizer Developed CTP IP, or (iii) amends the claim. In order to establish standing, OPKO, upon request of Pfizer, agrees to timely commence or to join in any such litigation, at Pfizer's expense, and in any event to cooperate with Pfizer in such litigation or steps at Pfizer's expense. OPKO will have the right to consult with Pfizer about such litigation and to participate in and be represented by independent counsel in such litigation at OPKO's expense. Pfizer will keep OPKO reasonably apprised of the status of such litigation and shall provide to OPKO all relevant communications, notices and/or documents in a timely fashion.

(b) Except as otherwise provided in this Section 6.4.2(b), OPKO shall have the first right, but not the obligation, to institute litigation or take other steps to remedy Third Party Infringement of any Licensed OPKO Core Patents and any such litigation or steps will be at OPKO's expense. OPKO will keep Pfizer adequately informed, consult with and work closely with Pfizer, and reasonably consider all recommendations of Pfizer, regarding any such litigation. OPKO will not, without the prior written consent of Pfizer enter into any compromise or settlement relating to such litigation that (i) admits the invalidity or unenforceability of any Licensed Patent Right or Pfizer Developed CTP IP, (ii) requires Pfizer to abandon any Licensed Patent Right or Pfizer Developed CTP IP, or (iii) amends the claim. In order to establish standing, Pfizer, upon request of OPKO, agrees to timely commence or to join in any such litigation, at OPKO's expense, and in any event to cooperate with OPKO in such litigation or steps at OPKO's expense. As noted above, Pfizer shall consult with OPKO regarding such litigation and have the right to participate in and be represented by independent counsel in such litigation at Pfizer's expense. OPKO will keep Pfizer fully apprised of the status of the litigation and shall provide to Pfizer all relevant communications, notices and/or documents, and proposed filings, in a timely fashion. If OPKO decides not to institute litigation or take other steps to remedy Third Party Infringement of any Licensed OPKO Core Patent Right (relating to the Compound or Licensed Product), or if OPKO fails to institute litigation or otherwise take steps to remedy Third Party Infringement within thirty (30) days of its receipt of notice of infringement or such earlier time as required to meet a

deadline in the relevant jurisdiction for instituting such litigation, then Pfizer has the second right, but not the obligation to institute such litigation or take other steps to remedy such Third Party infringement at Pfizer's expense. OPKO will have the right to consult with Pfizer about such litigation and to participate in and be represented by independent counsel in such litigation at OPKO's expense. Pfizer will keep OPKO reasonably apprised of the status of such litigation and shall provide to OPKO all relevant communications, notices and/or documents in a timely fashion.

6.4.3. Pfizer Election to Not Enforce or Defend. If Pfizer fails to institute litigation or otherwise take steps to remedy Third Party Infringement within *** days of its receipt of notice, then OPKO will have the right, but not the obligation, upon *** prior notice to Pfizer, at OPKO's expense, to institute any such litigation; *provided*, *however*, *that* OPKO will only have the foregoing right if Pfizer would not be required (by Applicable Law or otherwise) to join such litigation as a party and such litigation would not involve a Patent Right covering a then-existing Licensed Product. Pfizer will have no obligation to cooperate with OPKO in any such litigation. Neither Party will incur any liability to the other Party as a consequence of any litigation initiated or pursued pursuant to this Section 6.4.3 or any unfavorable decision resulting therefrom, including any decision holding any Licensed Patent Right invalid or unenforceable.

6.4.4. Other Actions by Third Parties. Each Party will promptly notify the other Party in the event of any legal or administrative action by any Third Party involving any Licensed Patent Right or Pfizer Developed CTP IP of which it becomes aware, including any nullity, opposition, revocation, interference, reexamination or compulsory licensing proceeding. Pfizer will have the first right, but not the obligation, to defend against any such action involving any Licensed Patent Right, in its own name (to the extent permitted by Applicable Law) or OPKO's name, and any such defense will be at Pfizer's expense. OPKO, at Pfizer's request, agrees to join in any such action at Pfizer's expense and in any event to cooperate with Pfizer at Pfizer's expense. If Pfizer fails to defend against any such action involving a Licensed Patent Right, then OPKO will have the right to defend such action, in its own name, and any such defense will be at OPKO's expense. Pfizer shall keep OPKO reasonably apprised of the status of such Actions and shall allow OPKO a reasonable opportunity and reasonable time to review and comment regarding substantive communications and shall give due consideration to any reasonable comments offered by OPKO.

6.5. Allegations of Infringement; Third Party Licenses.

6.5.1. Notification. If the Development, Manufacture, Commercialization or use of any Compound or Licensed Product, the practice of any Licensed Technology, or the exercise of any other right granted by OPKO to Pfizer hereunder (collectively, the "**Licensed Activities**") by Pfizer or any of its Affiliates or permitted sublicensees or the practice of any Licensed Technology by OPKO is alleged by a Third Party to infringe, misappropriate or otherwise violate such Third Party's Patent Rights or other Intellectual Property Rights, OPKO will notify Pfizer in writing promptly upon becoming aware of such allegation. Additionally, if OPKO determines that, based upon the review of any Third Party Patent Right or other Third Party Intellectual Property Rights, it may be desirable to obtain a license from such Third Party with respect thereto so as to avoid any potential claim of infringement by such Third Party against either Party or their respective Affiliates or sublicensees, then OPKO will promptly notify Pfizer of such determination.

6.5.2. Pfizer Option to Negotiate. If Pfizer determines, in its reasonable discretion, that, in order for Pfizer, its Affiliates or permitted sublicensees to engage in the Licensed Activities, it is necessary to obtain a license under one or more Patent Rights or other Intellectual Property Rights Controlled by a Third Party, then Pfizer will have the right, but not the obligation, to negotiate and enter into a license or other agreement with such Third Party. All amounts payable under any such license or agreement with a Third Party will reduce Pfizer's royalty and gross profit payment obligations under this Agreement as and to the extent provided in Section 5.5.1(b). Pfizer shall provide OPKO with a copy of all such Patent Rights, shall keep OPKO reasonably apprised of the status of such negotiations, and shall provide to OPKO copies of all relevant communications and/or documents in a timely fashion.

6.6. Third Party Infringement Suits.

6.6.1. Notification. Each Party will promptly notify the other Party in the event that any Third Party files suit or brings any other action alleging patent infringement by Pfizer or OPKO or any of their respective Affiliates or sublicensees with respect to the Development, Manufacture, Commercialization or use of any Compound or Licensed Product or the practice of Licensed Technology (any such suit or other action referred to herein as an "**Infringement Claim**").

6.6.2. Control. In the case of any Infringement Claim against Pfizer (including its Affiliates or sublicensees) alone or against both Pfizer and OPKO (including its Affiliates), Pfizer will have the right, but not the obligation, to control the defense of such Infringement Claim, including control over any related litigation, settlement, appeal or other disposition arising in connection therewith. OPKO will cooperate with Pfizer and will have the right to consult with Pfizer concerning any Infringement Claim and to participate in and be represented by independent counsel in any associated litigation in which OPKO is a party at OPKO's own expense. If Pfizer elects to control the defense of any Infringement Claim then Pfizer will continue to have the right to control using counsel of its own choice and will bear *** of its own attorneys' fees incurred in investigating, preparing or defending such Infringement Claim. In the case of any Infringement Claim against OPKO alone, Pfizer will have the right to consult with OPKO concerning such Infringement Claim, and Pfizer, upon request of OPKO, will reasonably cooperate with OPKO at OPKO's expense (but Pfizer will have no obligation to join any Infringement Claim or associated litigation).

6.7. Orange Book Information. Pfizer will have the sole right, but not the obligation, to submit to all applicable Governmental Authorities patent information pertaining to each Licensed Product pursuant to 21 U.S.C. § 355(b)(1)(G) (or any amendment or successor statute thereto), any similar statutory or regulatory requirement enacted in the future regarding biologic products, or any similar statutory or regulatory requirement in any non-U.S. country or other regulatory jurisdiction. Pfizer shall keep OPKO reasonably apprised of the status of such submissions and shall provide to OPKO all relevant communications, notices and/or documents regarding such submissions in a timely fashion.

6.8. Biosimilar Notices. Notwithstanding any provision of this Agreement to the contrary, each Party shall, within three (3) Business Days after receipt thereof, give written notice to the other of any notice received from a Third Party of an application for FDA approval under the Biologics Price Competition and Innovation Act of 2009 (or any amendment or successor statute thereto) of a Biosimilar Product, or any certification under a similar statutory or regulatory requirement in any non-United States country in the Territory, claiming that a

Licensed Patent Right covering any Product is invalid or that infringement will not arise from the Development, Manufacture or Commercialization of a proposed Biosimilar Product by a Third Party. Upon the giving of such notice, Pfizer shall have the first right but not the obligation, to bring an infringement action against such Third Party in connection with such certification, with the rights and obligations of the Parties as set forth in Section 6.6. Pfizer shall notify OPKO at least ten (10) Business Days prior to the date set forth by statute or regulation with respect to the first response to be made by the BLA holder, of its intent to exercise, or not exercise, this right, and, if Pfizer does not exercise this right, the Parties will have the rights and obligations as set forth in Section 6.6. Any infringement action against a Third Party arising under this Section 6.8 shall be governed by the provisions of this Section 6.8.

7. CONFIDENTIALITY.

7.1. Definition. "**Confidential Information**" means, with respect to each Party, all Licensed Know-How or other information, including proprietary information and materials (whether or not patentable) regarding or embodying such Party's technology, products, business information or objectives, that is communicated by or on behalf of the Disclosing Party to the Receiving Party or its permitted recipients, on or after the Original Effective Date, but only to the extent that such Licensed Know-How or other information in written form is marked in writing as "confidential" at the time of disclosure, and such Licensed Know-How or other information disclosed orally or in non-tangible form is (a) identified by the Disclosing Party as "confidential" at the time of disclosure and (b) within thirty (30) days thereafter, the Disclosing Party provides a written summary of such Know-How or other information marked as "confidential". Notwithstanding the foregoing, information disclosed orally or in non-tangible form that is not subsequently summarized in writing shall be treated as Confidential Information if the circumstances of the disclosure or the nature of the information would reasonably be expected to be confidential. Confidential Information does not include any Licensed Know-How or other information that (a) was already known by the Receiving Party (other than under an obligation of confidentiality to the Disclosing Party) at the time of disclosure by or on behalf of the Disclosing Party, (b) was generally available to the public or otherwise part of the public domain at the time of its disclosure to the Receiving Party, (c) became generally available to the public or otherwise part of the public domain after its disclosure to the Receiving Party, other than through any act or omission of the Receiving Party in breach of its obligations under this Agreement, (d) was disclosed to the Receiving Party, other than under an obligation of confidentiality, by a Third Party who had no obligation to the Disclosing Party not to disclose such information to the Receiving Party or (e) was independently discovered or developed by or on behalf of the Receiving Party without the use of any Confidential Information belonging to the Disclosing Party. The terms and conditions of this Agreement will be considered Confidential Information of both Parties.

7.2. Obligation; Term. Except to the extent otherwise expressly authorized by this Agreement, the Parties agree that, during the Term and for *** thereafter, each Party (the "**Receiving Party**") receiving any Confidential Information of the other Party (the "**Disclosing Party**") hereunder will: (a) keep the Disclosing Party's Confidential Information confidential; (b) not disclose, or permit the disclosure of, the Disclosing Party's Confidential Information; and (c) not use, or permit to be used, the Disclosing Party's Confidential Information for any purpose other than as expressly permitted under the terms of this Agreement. For clarity, use of the Disclosing Party's Confidential Information for the purpose of invalidating Licensed Patent Rights is not a purpose expressly permitted under the terms of the Agreement.

7.3. Disclosure to Party Representatives. Notwithstanding the provisions of Section 7.2, the Receiving Party may disclose Confidential Information belonging to the Disclosing Party

to the Receiving Party's Representatives who (a) have a need to know such Confidential Information in connection with the performance of the Receiving Party's obligations or the exercise of the Receiving Party's rights under this Agreement and (b) have agreed in writing to non-disclosure and non-use provisions with respect to such Confidential Information that are at least as restrictive as those set forth in this Article 7.

7.4. Disclosure to Third Parties. Notwithstanding the provisions of Section 7.2, each Party may disclose Confidential Information belonging to the other Party to the extent such disclosure is reasonably necessary:

7.4.1. to Governmental Authorities (a) to the extent desirable to obtain or maintain Regulatory Approvals for any Compound or Licensed Product within the Territory, and (b) in order to respond to inquiries, requests or investigations relating to any Compound, Licensed Product or this Agreement;

7.4.2. to outside consultants, contractors, advisory boards, managed care organizations, non-clinical and clinical investigators, and bona fide potential or actual sublicensees, collaborators, partners or permitted assignees, in each case to the extent desirable to Develop, register or Commercialize any Compound or Licensed Product; *provided that* the Receiving Party will obtain the same confidentiality obligations from such Third Parties as it obtains with respect to its own similar types of confidential information;

7.4.3. in connection with filing or prosecuting Patent Rights or Trademarks as permitted by this Agreement;

7.4.4. in connection with prosecuting or defending litigation as permitted by this Agreement;

7.4.5. in connection with posting results of and other information about clinical trials to clinicaltrials.gov or PhRMA websites; or

7.4.6. to the extent necessary or desirable in order to enforce its rights under this Agreement.

If a Party deems it reasonably necessary to disclose Confidential Information belonging to the other Party pursuant to this Section 7.4, then the disclosing Party shall to the extent possible give sufficient advance written notice of such disclosure to the other Party and take such measures to ensure confidential treatment of such information as is reasonably required by the other Party, at the other Party's expense. If reasonably practicable under the circumstances, the disclosing party shall give the other Party sufficient advance notice of the text that such Party will have the opportunity to seek, at its own cost, an appropriate protective order or other remedy or waive compliance with the provisions of this Agreement. If a Party seeks a protective order, the other Party agrees to cooperate. If the Party seeking the protective order fails to obtain the protective order or waive compliance with the relevant portions of this Agreement, the other Party will disclose only that portion of information concerning the Compound or Licensed Product that its legal counsel determines it is required to disclose.

7.5. SEC Filings and Other Disclosures. Either Party may disclose the terms of this Agreement to the extent required, in the reasonable opinion of such Party's legal counsel, to comply with Applicable Law, including the rules and regulations promulgated by the United States Securities and Exchange Commission or any equivalent governmental agency in any country in the world. Before disclosing this Agreement or any of the terms hereof pursuant to this Section 7.5, the Parties will consult with one another on the terms of this Agreement to be redacted in making any such disclosure, with the disclosing Party providing as much advanced

notice as is feasible under the circumstances, and giving consideration to the comments of the other Party. Further, if a Party discloses this Agreement or any of the terms hereof in accordance with this Section 7.5, such Party shall, at its own expense, seek such confidential treatment of confidential portions of this Agreement and such other terms, as may be reasonably requested by the other Party.

7.6. Residual Knowledge Exception. Notwithstanding any provision of this Agreement to the contrary, Residual Knowledge shall not be considered Confidential Information for purposes of this Section 7.6.

7.7. Announcements. Except as may be expressly permitted under Section 7.5, and except for OPKO's press release which shall be in the form of Exhibit C attached hereto, neither Party will make any public announcement regarding this Agreement without the prior written approval of the other Party. For the sake of clarity, nothing in this Agreement shall prevent Pfizer from making any scientific publication or public announcement with respect to any Licensed Product under this Agreement; *provided*, *however*, *that*, except as permitted under Section 7.3 or Section 7.4, Pfizer shall not disclose any of OPKO's Confidential Information in any such publication or announcement without obtaining OPKO's prior written consent to do so.

7.8. Publications.

7.8.1. Publications by Pfizer. During the Term, Pfizer shall submit to OPKO for review and approval any proposed academic, scientific and medical publication or public presentation that contains OPKO's Confidential Information or relates to a Compound or Licensed Product. Such review and approval will be conducted for the purposes of preserving the value of the Licensed Technology and determining whether any portion of the proposed publication or presentation containing OPKO's Confidential Information should be modified or deleted. Written copies of such proposed publication or presentation required to be submitted hereunder shall be submitted to OPKO no later than *** before submission for publication or presentation (the "**OPKO Review Period**"). OPKO shall provide its comments with respect to such publications and presentations within *** of its receipt of such written copy. The OPKO Review Period may be extended for an additional *** in the event OPKO can, within *** of receipt of the written copy, demonstrate reasonable need for such extension, including for the preparation and filing of patent applications. Pfizer will comply with standard academic practice regarding authorship of scientific publications and recognition of the contribution of other parties in any publication governed by this Section 7.8.1, including International Committee of Medical Journal Editors standards regarding authorship and contributions. For the sake of clarity, Pfizer's obligation to submit any publication to OPKO for review and approval under this Section 7.8.1 shall not apply to any publication that does not contain OPKO's Confidential Information or relate in any manner to the Compound or Licensed Product.

7.8.2. Publications by OPKO. During the Term, OPKO shall submit to Pfizer for review and approval any proposed academic, scientific and medical publication or public presentation that contains Pfizer's Confidential Information or relates to a Compound or Licensed Product. Such review and approval will be conducted for the purposes of preserving the value of the Licensed Technology and determining whether any portion of the proposed publication or presentation containing the Pfizer's Confidential Information should be modified or deleted. Written copies of such proposed publication or presentation required to be submitted hereunder shall be submitted to Pfizer no later than *** days before submission for publication or presentation (the

"**Pfizer Review Period**"). Pfizer shall provide its comments with respect to such publications and presentations within *** days of its receipt of such written copy. The Pfizer Review Period may be extended for an additional *** days in the event Pfizer can, within of receipt of the written copy, demonstrate reasonable need for such extension, including for the preparation and filing of patent applications. OPKO will comply with standard academic practice regarding authorship of scientific publications and recognition of the contribution of other parties in any publication governed by this Section 7.8.2, including International Committee of Medical Journal Editors standards regarding authorship and contributions. For the sake of clarity, (x) OPKO shall not include in its academic, scientific and medical publications and public presentations any pre-clinical and clinical data and results relating to a Compound or Licensed, including without limitation any such data and results provided to Pfizer under this Agreement, without Pfizer's prior written consent, such consent not to be unreasonably withheld and (y) OPKO's obligation to submit any publication to Pfizer for review and approval under this Section 7.8.2 shall not apply to any publication that does not contain Pfizer's Confidential Information or relate in any manner to the Compound or Licensed Product.

8. REPRESENTATIONS, WARRANTIES AND COVENANTS.

8.1. Mutual Representations and Warranties. Each of OPKO and Pfizer hereby represents and warrants to the other Party, as of the Original Execution Date, as of the Original Effective Date and as of the Amendment Execution Date that:

8.1.1. it is duly organized, validly existing and in good standing under the laws of the jurisdiction of its organization;

8.1.2. the execution, delivery and performance of this Agreement by such Party has been duly authorized by all requisite action under the provisions of its charter, bylaws and other organizational documents, and does not require any action or approval by any of its shareholders or other holders of its voting securities or voting interests;

8.1.3. it has the power and authority to execute and deliver this Agreement and to perform its obligations hereunder;

8.1.4. this Agreement has been duly executed and is a legal, valid and Binding Obligation on each Party, enforceable against such Party in accordance with its terms; and

8.1.5. the execution, delivery and performance by such Party of this Agreement and its compliance with the terms and provisions hereof does not and will not conflict with or result in a breach of or default under any Binding Obligation.

8.2. Mutual Covenants. Each of OPKO and Pfizer hereby covenants to the other Party that:

8.2.1. from the Original Effective Date until the expiration or termination of this Agreement, it will perform its obligations under this Agreement in compliance in all material respects with Applicable Laws; and

8.2.2. with respect to any Licensed Products, payments or services provided under this Agreement, such Party has not taken and will not during the Term take any action, directly or indirectly, to offer, promise or pay, or authorize the offer or payment of, any money or anything of value in order to improperly or corruptly seek to influence

any Government Official or any other person in order to gain an improper advantage, and has not accepted, and will not accept in the future, such payment.

8.3. OPKO Representations and Warranties. OPKO hereby represents and warrants to Pfizer, as of the Original Execution Date and as of the Original Effective Date that:

8.3.1. except as set forth in Schedule 8.3, OPKO and its Affiliates own all right, title and interest to the Licensed Technology, all of which is clear of any claims, liens, charges or encumbrances, including under any OPKO Third Party Agreement, that would prevent OPKO from granting the rights it is granting to Pfizer hereunder or conflict with the grant of those rights;

8.3.2. OPKO (including as necessary through appropriate licenses granted to OPKO by its Affiliates) has the full right, power and authority to grant all of the right, title and interest in the licenses and other rights granted or to be granted to Pfizer, Pfizer's Affiliates or Pfizer's sublicensees under this Agreement;

8.3.3. Schedule 1.98 sets forth a true and complete list of all Patent Rights that are a part of the Licensed Technology owned or otherwise Controlled by OPKO or its Affiliates that relate to the Compounds or Licensed Products, or their manufacture or use, including in the case of Patent Rights that are licensed to OPKO, the name of the owner(s) and licensor(s) and the agreement(s) providing OPKO with Control, (b) each such Patent Right remains in full force and effect and (c) OPKO or its Affiliates have timely paid, including within any extension or grace periods, all filing and renewal fees payable with respect to such Patent Rights;

8.3.4. to its knowledge, it has made available to Pfizer all material scientific and technical information and safety and efficacy information in its possession with respect to the Compounds and Licensed Products;

8.3.5. to its knowledge, no Third Party has challenged or threatened in writing to challenge the inventorship, Control, right to use, scope, validity or enforceability of any Licensed Patent Right (including, by way of example, through the institution or written threat of institution of interference, derivation, post-grant review, opposition, nullity or similar invalidity proceedings before the United States Patent and Trademark Office or any analogous foreign Governmental Authority);

8.3.6. it has complied with all Applicable Laws, including any disclosure requirements, in connection with the filing, prosecution and maintenance of the Licensed Patent Rights;

8.3.7. except as expressly disclosed in Schedule 8.3, to its knowledge, OPKO and its Affiliates have independently developed all Licensed Know-How or otherwise have a valid right to use, and to permit Pfizer, Pfizer's Affiliates and Pfizer's permitted sublicensees to use, the Licensed Know-How for all permitted purposes under this Agreement;

8.3.8. OPKO and its Affiliates have obtained, from all inventors of Licensed Technology, valid and enforceable agreements assigning to OPKO each such inventor's entire right, title and interest in and to all such Licensed Technology;

8.3.9. except as disclosed in Schedule 8.3, to its knowledge, other than ordinary course governmental rights that apply to research performed with federal state or local

institutions, no Licensed Technology is subject to any funding agreement with any government or Governmental Authority;

8.3.10. except as expressly disclosed in Schedule 8.3, neither OPKO nor any of its Affiliates are party to or otherwise subject to any agreement or arrangement which limits the ownership or licensed rights of Pfizer or its Affiliates with respect to, or limits the ability of Pfizer or its Affiliates to grant a license, sublicense or access, or provide or provide access or other rights in, to or under, any Intellectual Property Right or material (including any Patent Right, Know-How or other data or information) as related to the Compound or Licensed Product, in each case, that would, but for such agreement or arrangement, be included in the rights licensed or assigned to Pfizer or its Affiliates pursuant to this Agreement;

8.3.11. there are no OPKO Third Party Agreements, other than the OPKO Third Party Agreements disclosed in Schedule 8.3 (each, a "**Disclosed Third Party Agreement**"), true and complete copies of which have been made available to Pfizer, pursuant to which (a) any Third Party has any right, title or interest in or to, or any license or covenant not to sue under, any Licensed Technology licensed hereunder, or (b) rights granted by or to OPKO or its Affiliates conflict with any right or license granted to Pfizer or its Affiliates hereunder;

8.3.12. to its knowledge, neither the Compound, nor the Development, Manufacture or manufacture and use of the Compound as conducted by OPKO prior to the Original Execution Date infringes any then-issued Patent Right of a Third Party;

8.3.13. to its knowledge, the parties to the Disclosed Third Party Agreements are in compliance in all material respects with all Disclosed Third Party Agreements except to the extent such noncompliance would not conflict with any right or license granted to Pfizer or its Affiliates hereunder;

8.3.14. to its knowledge, OPKO, its Affiliates and all other Third Parties that have conducted or have otherwise provided materials, support or services for any ongoing Trials are and have been in material compliance with all Applicable Laws, including, where applicable, compliance with GCP, and are and have been in material compliance with any other agreed upon quality standards, in each case at every stage during the said Trials (including protocol and database development, Trial site feasibility and initiation, subject enrollment, Trial study conduct, analysis and reporting) and have not been the subject of any regulatory enforcement action by any Regulatory Authority, or of any circumstances that would give rise to any such Third Parties being the subject of any regulatory enforcement action by any Regulatory Authority;

8.3.15. OPKO is not, and, to its knowledge, no (a) current licensor or (b) clinical research investigator, institution or other Third Party acting on behalf of OPKO in connection with a Trial under a written agreement for services or rights related to Licensed Product (in each case, as applicable) is debarred by any Regulatory Authority or the subject of debarment proceedings by any Regulatory Authority and, in the course of the Development of any Compound, OPKO has not used, and, to its knowledge, (i) no current licensor nor (ii) any clinical research investigators, institutions or other Third Parties acting on behalf of OPKO in connection with a Trial (in each case, as applicable) has used, any employee or consultant that is debarred by any Regulatory Authority or, to OPKO's knowledge, is the subject of debarment proceedings by any Regulatory Authority;

8.3.16. to its knowledge, there is no (a) claim, demand, suit, proceeding, arbitration, inquiry, investigation or other legal action of any nature, civil, criminal, regulatory or otherwise, pending or, to its knowledge, threatened against OPKO or any of its Affiliates or (b) judgment or settlement against or owed by OPKO or any of its Affiliates, in each case in connection with the Licensed Technology, any Compound or any Licensed Product or relating to the transactions contemplated by this Agreement; and

8.3.17. (a) Invitrogen and its successors have no claim on or other interest in the MOD-4023 cells or any use thereof, (b) other than the license that is in place between OPKO or its Affiliates and Invitrogen or its successor relating to DG44 Materials, no additional license is required from Invitrogen or its successors in order to permit the use of the DG44 Materials or the MOD-4023 cells in commercial bioproduction applications, including for commercial production of Licensed Products, and (c) the only further Third Party intellectual property license that needs to be put in place in order enable the use of the DG44 Materials or the MOD-4023 cells in commercial bioproduction applications, including for commercial production of Licensed Products, without infringing the Intellectual Property Rights of any Third Party is a license for use of these materials in commercial bioproduction applications to be obtained from Lawrence Chasin and Gail Urlaub Chasin.

Reference to "its knowledge" in any of the above provisions of this Section 8.3 means actual knowledge of senior management of OPKO and its Affiliates or other employees of OPKO and its Affiliates responsible for patent matters after reasonable and due inquiry.

8.4. OPKO Covenants. In addition to the covenants made by OPKO elsewhere in this Agreement, OPKO hereby covenants to Pfizer that, from the Original Effective Date until expiration or termination of this Agreement, other than in connection with the Agreement:

8.4.1. it shall not, and shall cause its Affiliates not to, incur or permit to exist, with respect to any Licensed Technology related to the Compound or any Licensed Product, any lien, encumbrance, charge, security interest, mortgage, liability, assignment, grant of license or other Binding Obligation that is or would be inconsistent with the licenses and other rights granted to Pfizer or its Affiliates under this Agreement;

8.4.2. it will (a) not enter into any OPKO Third Party Agreement that adversely affects (i) the rights granted to Pfizer, Pfizer's Affiliates or sublicensees hereunder or (ii) OPKO's ability to fully perform its obligations hereunder; (b) not amend or otherwise modify any OPKO Third Party Agreement (including any Disclosed Third Party Agreement) or consent or waive rights with respect thereto in any manner that (i) adversely affects the rights granted to Pfizer or Pfizer's Affiliates or sublicensees hereunder or (ii) OPKO's ability to fully perform its obligations hereunder; (c) promptly furnish Pfizer with true and complete copies of all amendments to the Disclosed Third Party Agreements and OPKO Third Party Agreements, relating to a Trial and related amendments executed following the Original Effective Date; (d) remain, and cause its Affiliates to remain, in compliance in all material respects with all OPKO Third Party Agreements relating to a Trial (including Disclosed Third Party Agreements); and (e) furnish Pfizer with copies of all notices received by OPKO or its Affiliates relating to any alleged breach or default by OPKO or its Affiliates under any OPKO Third Party Agreement relating to a Trial (including and Disclosed Third Party Agreement) within five (5) Business Days after receipt thereof;

8.4.3. where OPKO's or its Affiliates' ownership of all right, title and interest to the Licensed Technology is based upon or depends on a sequence of historical transfers

of title to any of the Licensed Technology (i.e. chain of title to the Licensed Technology) being valid, effective and free from defects and other problems, if at any time there is a potential defect with the validity or effectiveness in such transfers or other problems in such chain of title, then OPKO and its Affiliates shall, at their expense, with urgency and diligence make any and all corrections and clarifications, including preparing any documents and obtaining any necessary Third Party signatures and consents, as may be necessary, including filing such documents in any patent office as appropriate, to remedy any such problems and to restore such chain of title;

8.4.4. it will not enter into or otherwise allow itself or its Affiliates to be subject to any agreement or arrangement that limits the ownership or licensed rights of Pfizer or its Affiliates with respect to, or limits the ability of Pfizer or its Affiliates to grant a license, sublicense or access, or provide or provide access or other rights in, to or under, any existing Licensed Technology or material (including any Patent Right, Know-How or other data or information) as related to the Compound or Licensed Product, in each case, that would, but for such agreement or arrangement, be included in the rights licensed or assigned to Pfizer or its Affiliates pursuant to this Agreement;

8.4.5. unless otherwise agreed by the Parties, it will maintain valid and enforceable agreements with all Persons acting by or on behalf of OPKO or its Affiliates under this Agreement that require such Persons to assign to OPKO their entire right, title and interest in and to all Licensed Technology as related to the Compound or Licensed Product;

8.4.6. OPKO and its Affiliates shall, at their sole expense, timely satisfy in full any and all obligations owed to Israel's Office of the Chief Scientist within the Ministry of Economy ("OCS"), including in relation to any grants OCS previously provided to OPKO or its Affiliates, in each case relating to the Licensed Products and/or the Development thereof; and

8.4.7. Promptly following the Original Effective Date, OPKO shall obtain, at its cost and expense, a license for commercial bioproduction applications to utilize the DG44 cell line materials used by OPKO and its Affiliates in relation to the Licensed Products ("**DG44 Materials**"), which license shall be obtained in such a manner that it extends to each of Rentschler, Pfizer and any designee of OPKO in the event of a termination of this Agreement or a *** hereunder.

8.5. ***

8.5.1. ***

8.5.2. ***

8.6. Compliance with Law and Ethical Business Practices. In addition to the other representations, warranties and covenants made by each Party elsewhere in this Agreement, each Party represents and warrants or covenants and agrees, as applicable, with the other Party that during the Term:

8.6.1. it is licensed, registered, or qualified under all Applicable Laws to do business, and has obtained such licenses, consents, authorizations or completed such registrations or made such notifications as may be necessary or required by Applicable Law to provide any products, goods or services encompassed within this Agreement, and

providing such products, goods or services is not inconsistent with any other obligation of such Party;

8.6.2. in conducting its activities hereunder, such Party will and will cause its Affiliates and, to the extent of its legal right to do so, use reasonable efforts to cause its other Representatives to comply in all material respects with all Applicable Laws and accepted pharmaceutical industry business practices, including, to the extent applicable to such Party and each of its Affiliates and other Representatives: the Federal Food, Drug, and Cosmetic Act (21 U.S.C. § 301, et seq.), the Anti-Kickback Statute (42 U.S.C. § 1320a-7b), the Civil Monetary Penalty Statute (42 U.S.C. § 1320a-7a), the False Claims Act (31 U.S.C. § 3729 et seq.), comparable state statutes, the regulations promulgated under all such statutes, and the regulations issued by the FDA;

8.6.3. with respect to any products, payments or services provided under this Agreement, it has not taken and will not during the Term take any action directly or indirectly to offer, promise or pay, or authorize the offer or payment of, any money or anything of value in order to improperly or corruptly seek to influence any Government Official or any other person in order to gain an improper advantage, and has not accepted, and will not accept in the future, such payment;

8.6.4. it complies with the laws and regulations of the countries where it operates, including anti-bribery and anti-corruption laws, accounting and record keeping laws, and laws relating to interactions with healthcare professionals or healthcare providers and Government Officials;

8.6.5. to its knowledge, it and each of its Affiliates has been and will, for the Term, be in compliance with all applicable global trade laws, including those related to import controls, export controls or economic sanctions, and such Party will cause each of its Affiliates to remain in compliance with the same during the Term;

8.6.6. to its knowledge, except to the extent permissible under United States law, neither it nor any of its Affiliates has, on its own behalf or acting on behalf of any other Person, directly or indirectly engaged with, and will not for the Term, directly or indirectly engage in any transactions with, or otherwise deal with, any country or Person targeted by United States, European Union, United Kingdom or other relevant economic sanctions laws in connection with any activities related to such Party's interaction with the other Party, including those contemplated under this Agreement; and

8.6.7. it is, as between the Parties, solely responsible for ensuring Compliance by it and its Affiliates.

8.7. Representation by Legal Counsel. Each Party hereto represents that it has been represented by legal counsel in connection with this Agreement and acknowledges that it has participated in the drafting hereof. In interpreting and applying the terms and provisions of this Agreement, the Parties agree that no presumption shall exist or be implied against the Party which drafted such terms and provisions.

8.8. Disclaimer. THE REPRESENTATIONS AND WARRANTIES OF EACH PARTY IN THIS AGREEMENT ARE IN LIEU OF ANY OTHER REPRESENTATIONS AND WARRANTIES, EXPRESS OR IMPLIED, INCLUDING ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR ANY IMPLIED WARRANTIES OF FITNESS FOR A PARTICULAR PURPOSE, ALL OF WHICH ARE HEREBY SPECIFICALLY EXCLUDED AND DISCLAIMED.

9. TERM AND TERMINATION.

9.1. Term. The term of this Agreement (the "**Term**") will commence on the Original Execution Date and end as follows: (a) if the Royalty Term expires prior to the initiation of a Profit Share Term, the Term shall terminate at end of the Royalty Term; (b) if a Profit Share Term begins prior to the expiration of the Royalty Term, the Term shall terminate *** in the Territory, unless, in either case of (a) and (b), this Agreement is terminated earlier as permitted in this Article 9.

9.2. Termination for Uncured Material Breach. Either Party may terminate this Agreement for cause at any time during the Term by giving written notice to the other Party in the event that such other Party commits a material breach of its obligations under this Agreement and such material breach remains uncured for *** days (or *** days for any payment breach) from the date of receipt of such notice by the breaching Party; *provided*, *however*, *that* if any breach is not reasonably curable within *** days and if the breaching Party is making a bona fide effort to cure such breach, such termination shall be delayed for a time period to be agreed by both Parties in order to permit the breaching Party a reasonable period of time to cure such breach. If the breaching Party disputes in good faith that it has materially breached one of its obligations under this Agreement, termination shall not take effect pending resolution of such dispute pursuant to Section 11.13 so long as Commercialization of Genotropin Products and Licensed Products continues in at least all countries in which Commercialization was ongoing as of the date of receipt of written notice of breach by the breaching Party. If, as a result of the application of such dispute resolution procedures, the breaching Party is determined to be in material breach of one or more of its obligations under this Agreement, then if the breaching Party fails to complete the actions specified to cure such breach within *** days (or *** days for any payment breach) after such ruling, then the complaining Party may terminate this Agreement upon written notice to the breaching Party.

9.3. Termination at Will. Upon delivery of at least *** prior written notice to OPKO, Pfizer shall have the right to terminate this Agreement for any reason (a) in its entirety or (b) with respect ***. For clarity, termination by Pfizer of the last remaining *** under this Agreement shall be deemed to be termination of this Agreement in its entirety.

9.4. Termination for a Bankruptcy Event.

9.4.1. Termination Right. Each Party shall have the right to terminate this Agreement in the event of a Bankruptcy Event with respect to the other Party. "**Bankruptcy Event**" means the occurrence of any of the following: (a) the institution of any bankruptcy, receivership, insolvency, reorganization or other similar proceedings by or against a Party under any bankruptcy, insolvency, or other similar law now or hereinafter in effect, including any section or chapter of the United States Bankruptcy Code, as amended, or under any similar laws or statutes of the United States or any state thereof (the "**Bankruptcy Code**"), where in the case of involuntary proceedings such proceedings have not been dismissed or discharged within ninety (90) days after they are instituted, (b) the filing of an insolvency proceeding or making of an assignment for the benefit of creditors or the admittance by a Party of any involuntary debts as they mature, (c) the institution of any reorganization, arrangement or other readjustment of debt plan of a Party not involving the Bankruptcy Code, (d) appointment of a receiver for all or substantially all of a Party's assets, or (e) any corporate action taken by the board of directors of a Party in furtherance of any of the foregoing actions.

9.4.2. Rights to Intellectual Property. All rights and licenses granted under or pursuant to this Agreement by OPKO are, and shall otherwise be deemed to be, for

purposes of Section 365(n) of the Bankruptcy Code, licenses of rights to "intellectual property" as defined under Section 101 of the Bankruptcy Code. The Parties agree that Pfizer, as licensee of intellectual property under this Agreement, shall retain and may fully exercise all of its rights and elections under the Bankruptcy Code. The Parties further agree that in the event of a rejection of this Agreement by OPKO in any bankruptcy proceeding by or against OPKO under the Bankruptcy Code or foreign equivalent, (a) Pfizer shall be entitled to a complete duplicate of (or complete access to, as appropriate) any such intellectual property and all embodiments of such intellectual property, which, if not already in Pfizer's possession, shall be promptly delivered to it upon Pfizer's written request therefor, and (b) OPKO shall not interfere with Pfizer's rights to intellectual property and all embodiments of intellectual property, and shall assist and not interfere with Pfizer in obtaining intellectual property and all embodiments of intellectual property from another entity. The term "embodiments" of intellectual property includes all tangible, intangible, electronic or other embodiments of rights and licenses hereunder, including all compounds and products embodying intellectual property, Licensed Products, filings with Regulatory Authorities and related rights, and Licensed Technology.

9.5. Effects of Expiration or Termination.

9.5.1. Partial Termination. In case of termination of this Agreement, not in its entirety, but with respect to only ***, by Pfizer pursuant to Section 9.3 (a "**Partial Termination**" and *** in which such Partial Termination occurs, a "***"), then the effects of termination described under Section 9.5.2 shall only apply to the ***, and this Agreement shall remain in full force and effect in accordance with its terms in *** of the Territory.

9.5.2. Termination by OPKO for Uncured Material Breach or Bankruptcy Event; Termination by Pfizer at Will. In the event that OPKO terminates this Agreement pursuant to Section 9.2 or Section 9.4, or Pfizer terminates this Agreement in whole or in part pursuant to Section 9.3, the following will apply in respect of the *** or Agreement, as the case may be.

(a) **License**. Effective upon the date of termination for the Agreement or each ***, Pfizer hereby grants to OPKO a fully ***, non-exclusive, perpetual, irrevocable, sublicenseable right and license under (i) the Pfizer Developed IP and (ii) any other Patent Rights and Know-How Controlled by Pfizer and its Affiliates as of the effective date of termination that is necessary to continue the Development, Manufacture and Commercialization of Compounds and Licensed Products, in each case, to use, have used, Develop, have Developed, Manufacture, have Manufactured, Commercialize, and have Commercialized Compounds and Licensed Products; *provided*, *that* upon request of OPKO, the Parties shall negotiate in good faith ***. Neither Party will be obligated to enter into any transaction described in this Section 9.5.2(a), and neither Party will have any liability to the other for failure to do so. *** OPKO shall be responsible for any royalties or other payments payable to Third Parties with respect to the use by OPKO and its Affiliates and sublicensees of any Patent Rights or Know-How licensed to OPKO under this Section 9.5.2(a).

(b) **Marks**. To the extent that Pfizer is Commercializing any Licensed Product under any Trademark that is neither (i) used for any other products in Pfizer's portfolio, nor (ii) confusingly similar to any other trade mark used for any

other products in Pfizer's portfolio, Pfizer shall, upon OPKO's request, assign such Trademark to OPKO. As part of the termination transition plan, the Parties shall reach agreement on commercially reasonable terms for procedures and obligations to address functional areas in which each Party's respective Licensed Product activities inside and outside of the Territory following termination of *** may have an impact on one another, including pharmacovigilance, coordination of brand messaging and coordination on any further Development efforts.

(c) **Transition.** Prior to the effective date of any termination or partial termination of this Agreement, the Parties shall negotiate in good faith and agree upon an outline and estimated schedule for transition of Intellectual Property Rights and Licensed Products to OPKO, to be reflected in a commercially reasonable termination transition plan and, if appropriate, a transition agreement, to seek to minimize any disruption to the Development or Commercialization of the Licensed Product (including therapy and coverage for patients, patient support activities, and pharmacovigilance reporting). The termination transition plan, and any transition agreement, shall provide for undertaking Commercially Reasonable Efforts for development and regulatory activities, support in commercialization activities, and such other matters as the parties may agree, including, if appropriate, a governance structure to allow for decision-making to be made on transition issues. Pfizer shall use diligent efforts to cooperate with OPKO or its designee to effect a smooth and orderly transition, which transition shall not exceed ***, except with respect to supply of Licensed Product which shall continue for the period contemplated herein.

(d) **Ongoing Trials**. In the event of: (x) a termination of this Agreement in its entirety, with respect to ongoing clinical trials and investigator-initiated trials involving a Licensed Product or related Device supported, directly or indirectly, by Pfizer or its Affiliates; or (y) in the event of a termination of this Agreement in part by Pfizer pursuant to Section 9.3, with respect to those ongoing clinical trials and investigator-initiated trials involving a Licensed Product or related Device supported, directly or indirectly, by Pfizer or its Affiliates that relate only to a country or countries that are located in the *** so terminated; the Parties will, with respect to such trials:

(i) Within *** days of the date of the notice of termination, Pfizer will provide OPKO with a list of ongoing clinical trials and investigator-initiated trials involving a Licensed Product or related Device supported, directly or indirectly, by Pfizer or its Affiliates. The trial listing shall include material details of the trials such as protocol summary, dates, sites, budget expended and estimated budget remaining, number of patients, current enrollment and safety issues. Pfizer shall promptly answer any questions of OPKO as to the status or details of any such trial. Prior to the date of termination, OPKO will notify Pfizer as to any trial for which OPKO wishes to assume responsibility and, Pfizer shall, at OPKO's cost and expense for activities after termination, complete such Trial. Notwithstanding the foregoing, Pfizer may prematurely suspend or terminate any such Trial if (A) a priori protocol defined stopping rules are met for safety or efficacy or (B) unacceptable safety signals are observed by Pfizer or a data and safety monitoring board with respect to the Licensed Product that present an unacceptable risk to patients participating in such trials.

(ii) With respect to any ongoing Trials involving a Licensed Product for which OPKO has notified Pfizer prior to the effective date of termination that it wishes to assume responsibility (*provided that*, with ***, OPKO shall be required to assume responsibility for such Trial and the provisions of this Section 9.5.2(d)(ii) shall apply to such Trial) (A) each Party shall cooperate with the other Party to facilitate the orderly transfer to OPKO of the conduct of such Trials as soon as reasonably practicable after the effective date of termination, (B) until such time as the conduct of such Trials has been successfully transferred to OPKO, Pfizer shall continue such Trials, (C) between the effective date of termination and the date on which the conduct of such Trials has been successfully transferred to OPKO, OPKO shall be responsible for, and shall reimburse Pfizer with respect to, all costs and expenses reasonably incurred by Pfizer in the conduct of such Trials, and (D) following the date on which the conduct of such Trials has been successfully transferred to OPKO, OPKO shall be solely responsible for all costs and expenses of such ongoing Trials.

(e) **Assignment of Filings and Marketing Approvals.** At OPKO's option, which shall be exercised by written notice to Pfizer, to the extent permitted under Applicable Laws, Pfizer shall assign or cause to be assigned to OPKO or its designee (or to the extent not so assignable, Pfizer shall take all reasonable actions to make available to OPKO or its designee the benefits of), at no cost to OPKO, any and all regulatory filings made with and all Regulatory Approvals obtained from the Regulatory Authorities in the Territory specifically relating to the Licensed Products, including, without limitation, any BLAs, MAAs, PMDAs, Price Approvals and third-party reimbursement approvals, in all such cases, only to the extent it is legally permissible to so transfer such items.

(f) **Transfer of Know How**. Pfizer shall promptly provide to OPKO, at no cost to OPKO, all Know-How, materials, and other development data specifically relating to the Licensed Products, *provided*, *that* Pfizer shall be entitled to retain copies of such items for legal archival and regulatory purposes. Pfizer shall deliver to OPKO (i) all clinical data and information in Pfizer's possession or control relating solely to Licensed Product, including for clarity, manufacturing data, if any (subject to the proviso at the end of this sentence), in the same form in which Pfizer maintains such data and (ii) in the same form in which Pfizer maintains such items, copies of all reports, records, regulatory correspondence and other materials in Pfizer's possession or control relating solely to the clinical development of Licensed Product, including, if applicable, any information contained in the global safety database established and maintained by Pfizer.

(g) **Rights of Reference.** Pfizer shall grant to OPKO a "Right of Reference," as that term is defined in 21 C.F.R. § 314.3(b) (or any analogous Applicable Law recognized outside of the United States), with respect to development data and regulatory filings transferred to OPKO pursuant to clauses (e) and (f) above.

(h) **Supply of Licensed Product.**

(i) In the event of a termination of a *** or this Agreement in its entirety, except to the extent that Pfizer continues to supply Licensed Product to OPKO following a partial termination pursuant to subsection (ii) below, Pfizer shall continue to supply OPKO after the effective date of termination with OPKO's requirements of clinical and commercial quantities of Compound and Licensed Products, pursuant to a supply agreement to be negotiated in good faith by the Parties on "commercially reasonable terms," which agreement will remain in effect until the earlier of (a) the *** anniversary of the effective date of termination, and (b) such time as OPKO or a Third Party manufacturer engaged by OPKO is capable of supplying OPKO with its requirements of clinical and commercial quantities of Compound and Licensed Products (the "**Supply Period**"); *provided*, *however*, *that* OPKO must use its commercially reasonable best efforts to supply or have supplied by a Third Party, Compound and Licensed Products as soon as reasonably practicable after the effective date of such termination. In addition, Pfizer shall assign any Third Party contracts to which it is a party relating to the supply or Commercialization of Licensed Product to OPKO and use Commercially Reasonable Efforts to cause such Third Parties to continue to supply to OPKO the same supplies and services then utilized in the Development, Manufacture and Commercialization of the Licensed Product. In the event Pfizer is restricted from assigning such Third Party contracts, Pfizer shall use Commercially Reasonable Efforts to maintain such Third Party Agreements for the benefit of OPKO until the end of the Supply Period. Solely for purposes of this Subsection 9.5.2(h)(i) "commercially reasonable terms" means, with respect to clinical supplies of Compound and Licensed Products, *** prior to the *** of effective date of termination, *** for the ***, and *** after the *** of the effective date of termination, to be set forth in the supply agreement between the Parties. Prior to termination of the supply term, if requested by OPKO, Pfizer shall cooperate with OPKO in building a reasonable safety stock of Licensed Products.

(ii) In the event of a termination of this Agreement in part by Pfizer pursuant to Section 9.3, Pfizer may elect, in its sole discretion, to continue to supply OPKO after the effective date of termination with OPKO's requirements of clinical and commercial quantities of Compound and Licensed Products, pursuant to a supply agreement to be negotiated in good faith by the Parties on "commercially reasonable terms," *provided*, *however*, *that* (A) Pfizer shall provide notice to OPKO of its decision with regard to post-termination supply, pursuant to this Subsection 9.5.2(h)(ii), no fewer than *** days prior to the effective date of termination, and (B) ***. Solely for purposes of this Subsection 9.5.2(h)(ii) "commercially reasonable terms" means, with respect to clinical supplies of Compound and Licensed Products, *** for such supplies, and with respect to commercial supplies means Pfizer's ***.

(i) **Existing Inventory**. Notwithstanding anything in this Agreement to the contrary, except in the event of termination by OPKO for Pfizer's uncured material breach, Pfizer and its Affiliates shall have the right to continue to sell their existing inventory of Licensed Products for a period not to exceed *** days

after the effective date of such termination, and OPKO shall continue to receive royalties and gross profit payments with respect to such sales.

9.5.3. Termination by Pfizer for Cause or Bankruptcy Event.

(a) **Partial Termination**. In the event that Pfizer terminates this Agreement pursuant to Section 9.2 or Section 9.4 with respect to any Licensed Product *** in the Territory: (i) all licenses granted under this Agreement by OPKO to Pfizer with respect to such Licensed Product in such *** shall become fully ***, perpetual, irrevocable *** and (ii) except as otherwise expressly provided herein, all other rights and obligations of each Party with respect to such Licensed Product in such *** shall cease.

(b) **Complete Termination**. In the event that Pfizer terminates this Agreement in its entirety pursuant to Section 9.2 or Section 9.4, (i) all licenses granted under this Agreement by OPKO to Pfizer shall become fully ***, perpetual, irrevocable *** and (ii) except as otherwise expressly provided herein, all other rights and obligations of each Party with respect to such Licensed Product in such *** shall cease.

9.5.4. Confidential Information. Following any termination of this Agreement, each of Pfizer and OPKO shall, upon request of the other Party, return or destroy all Confidential Information of such Party, disclosed to it pursuant to this Agreement, including all copies and extracts of documents, as promptly as practicable following receipt of such request, except that one (1) copy may be kept for the purpose of complying with continuing obligations under this Agreement.

9.5.5. Accrued Obligations. Expiration or termination of this Agreement, in whole or part, for any reason (i) shall be without prejudice to OPKO's right to receive all royalties and Profit Share Payments accrued under Sections 5.3 and 5.4 prior to the effective date of such termination and any other payments due hereunder that have accrued prior to the effective date of such termination, (ii) shall be without prejudice to any other remedies that either Party may otherwise have, and (iii) shall not release a Party hereto from any indebtedness, liability or other obligation incurred hereunder by such Party prior to the date of termination or expiration.

9.5.6. Survival. Expiration or termination of this Agreement shall not relieve the Parties of any obligation accruing hereunder prior to such expiration or termination. Without limiting the foregoing, the following sections, together with this Section 9.5.6 and any sections that expressly survive, shall survive expiration or termination of this Agreement for any reason: Sections 1 (Definitions), 2.4 (Licenses to Pfizer Developed IP), 5 (Payments), 5.8 (Inspection of Records), 5.10 (No Guarantee of Success), 6.1.1 (Pre-Existing IP), 6.1.2 (Developed IP), 7 (Confidentiality), 9.5 (Effects of Expiration or Termination), 10.1 (Limitation of Liability), 10.2 (Indemnification by Pfizer), 10.3 (Indemnification by OPKO), 10.4 (Procedure) and 11 (Miscellaneous).

10. LIMITATION OF LIABILITY, INDEMNIFICATION AND INSURANCE.

10.1. Limitation of Liability. EXCEPT WITH RESPECT TO LIABILITY ARISING FROM A BREACH OF ARTICLES 6 AND 7, FROM ANY WILLFUL MISCONDUCT OR INTENTIONALLY WRONGFUL ACT, OR TO THE EXTENT SUCH PARTY MAY BE REQUIRED TO INDEMNIFY THE OTHER PARTY UNDER THIS ARTICLE 10, IN NO EVENT WILL EITHER PARTY OR ITS REPRESENTATIVES BE LIABLE UNDER THIS

AGREEMENT FOR ANY SPECIAL (ONLY AS RESPECTS INDIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES OR LOST PROFITS OR REVENUE), INDIRECT, INCIDENTAL, CONSEQUENTIAL OR PUNITIVE DAMAGES, WHETHER IN CONTRACT, WARRANTY, TORT, NEGLIGENCE, STRICT LIABILITY OR OTHERWISE, OR LOSS OF PROFITS OR REVENUE SUFFERED BY THE OTHER PARTY OR ANY OF ITS REPRESENTATIVES. Without limiting the generality of the foregoing, "consequential damages" will be deemed to include, and neither Party will be liable to the other Party or any of such other Party's Representatives or stockholders for, any damages based on or measured by loss of projected or speculative future sales of the Licensed Products, any Regulatory Milestone Payment due upon any unachieved Regulatory Milestone under Section 5.2, any unearned Net Sales or Franchise Net Sales, any unearned royalties or gross profit payments under Section 5.3 or Section 5.4 or any other unearned, speculative or otherwise contingent payments provided for in this Agreement or other speculative costs or savings related to the Development or Commercialization of Licensed Products.

10.2. Indemnification by Pfizer. Pfizer will indemnify, defend and hold harmless OPKO, each of its Affiliates, and each of its and its Affiliates' employees, officers, directors and agents (each, an "**OPKO Indemnified Party**") from and against any and all liability, loss, damage, expense (including reasonable attorneys' fees and expenses) and cost (collectively, a "**Liability**") that the OPKO Indemnified Party may be required to pay to one or more Third Parties to the extent resulting from or arising out of:

10.2.1. the negligence or willful misconduct of Pfizer or its Affiliates or sublicensees in connection with this Agreement;

10.2.2. Manufacture, Development, Commercialization or use of any Licensed Product by, on behalf of, or under the authority of, Pfizer (including by any OPKO Indemnified Party), other than (i) claims by Third Parties relating to patent infringement arising out of the exercise of rights under the Licensed Patent Rights, (ii) claims by Third Parties relating to misappropriation of trade secrets arising out of the exercise of rights under the Licensed Know-How, or (iii) claims for which OPKO is required to indemnify Pfizer pursuant to Section 10.3; or

10.2.3. the material breach by Pfizer of any of its representations, warranties or covenants set forth in Article 8, except, in each case, to the extent caused by the breach, negligence, recklessness or intentional acts of OPKO or any OPKO Indemnified Party.

10.3. Indemnification by OPKO. OPKO will indemnify, defend and hold harmless Pfizer, its Affiliates, sublicensees, contractors and, distributors, and each of its and their respective employees, officers, directors and agents (each, a "**Pfizer Indemnified Party**") from and against any and all Liabilities that the Pfizer Indemnified Party may be required to pay to one or more Third Parties to the extent resulting from or arising out of:

10.3.1. the negligence or willful misconduct of OPKO or its Affiliates in connection with this Agreement;

10.3.2. the material breach by OPKO of any of its representations, warranties or covenants set forth in Article 8, except, in each case, to the extent caused by the breach, negligence, recklessness or intentional acts of Pfizer or any Pfizer Indemnified Party; or

10.3.3. OPKO's misappropriation of trade secrets, proprietary materials, and/or patentable subject matter, in each case owned or Controlled by a Third Party in relation to

the Development or Manufacture of the Licensed Product at any time prior to the Amendment Effective Date.

10.4. Procedure.

10.4.1. Notice. Each Party will notify the other Party in writing in the event it becomes aware of a claim for which indemnification may be sought hereunder. In the event that any Third Party asserts a claim or other proceeding (including any governmental investigation) with respect to any matter for which a Party (the "**Indemnified Party**") is entitled to indemnification hereunder (a "**Third Party Claim**"), then the Indemnified Party shall promptly notify the Party obligated to indemnify the Indemnified Party (the "**Indemnifying Party**") thereof; *provided*, *however*, *that* no delay on the part of the Indemnified Party in notifying the Indemnifying Party shall relieve the Indemnifying Party from any obligation hereunder unless (and then only to the extent that) the Indemnifying Party is prejudiced thereby.

10.4.2. Control. The Indemnifying Party shall have the right, exercisable by notice to the Indemnified Party within ten (10) Business Days after receipt of notice from the Indemnified Party of the commencement of or assertion of any Third Party Claim, to assume direction and control of the defense, litigation, settlement, appeal or other disposition of the Third Party Claim (including the right to settle the claim solely for monetary consideration) with counsel selected by the Indemnifying Party and reasonably acceptable to the Indemnified Party; *provided that* (a) the Indemnifying Party has sufficient financial resources, in the reasonable judgment of the Indemnified Party, to satisfy the amount of any adverse monetary judgment that is sought, (b) the Third Party Claim seeks solely monetary damages and (c) the Indemnifying Party expressly agrees in writing that as between the Indemnifying Party and the Indemnified Party, the Indemnifying Party shall be solely obligated to satisfy and discharge the Third Party Claim in full (the conditions set forth in clauses (a), (b) and (c) above are collectively referred to as the "**Litigation Conditions**"). Within ten (10) Business Days after the Indemnifying Party has given notice to the Indemnified Party of its exercise of its right to defend a Third Party Claim, the Indemnified Party shall give notice to the Indemnifying Party of any objection thereto based upon the Litigation Conditions. If the Indemnified Party reasonably so objects, the Indemnified Party shall continue to defend the Third Party Claim, at the expense of the Indemnifying Party, until such time as such objection is withdrawn. If no such notice is given, or if any such objection is withdrawn, the Indemnifying Party shall be entitled, at its sole cost and expense, to assume direction and control of such defense, with counsel selected by the Indemnifying Party and reasonably acceptable to the Indemnified Party. During such time as the Indemnifying Party is controlling the defense of such Third Party Claim, the Indemnified Party shall cooperate, and shall cause its Affiliates and agents to cooperate upon request of the Indemnifying Party, in the defense or prosecution of the Third Party Claim, including by furnishing such records, information and testimony and attending such conferences, discovery proceedings, hearings, trials or appeals as may reasonably be requested by the Indemnifying Party. In the event that the Indemnifying Party does not satisfy the Litigation Conditions or does not notify the Indemnified Party of the Indemnifying Party's intent to defend any Third Party Claim within ten (10) Business Days after notice thereof, the Indemnified Party may (without further notice to the Indemnifying Party) undertake the defense thereof with counsel of its choice and at the Indemnifying Party's expense (including reasonable, out-of-pocket attorneys' fees and costs and expenses of enforcement or defense). The Indemnifying Party or the Indemnified Party, as the case may be, shall have the right to join in (including the right to conduct discovery, interview

and examine witnesses, and participate in all settlement conferences), but not control, at its own expense, the defense of any Third Party Claim that the other Party is defending as provided in this Agreement.

10.4.3. Settlement. The Indemnifying Party shall not, without the prior written consent of the Indemnified Party, enter into any compromise or settlement that commits the Indemnified Party to take, or to forbear to take, any action. The Indemnified Party shall have the sole and exclusive right to settle any Third Party Claim, on such terms and conditions as it deems reasonably appropriate, to the extent such Third Party Claim involves equitable or other non-monetary relief, but shall not have the right to settle such Third Party Claim to the extent such Third Party Claim involves monetary damages without the prior written consent of the Indemnifying Party. Each of the Indemnifying Party and the Indemnified Party shall not make any admission of liability in respect of any Third Party Claim without the prior written consent of the other party, and the Indemnified Party shall use reasonable efforts to mitigate Liabilities arising from such Third Party Claim.

10.5. Insurance. Each Party further agrees to obtain and maintain, during the Term, commercial general liability insurance, including products liability insurance (or clinical trials insurance, whichever is applicable), with reputable and financially secure insurance carriers (or pursuant to a program of self-insurance reasonably satisfactory to the other Party) to cover its indemnification obligations under Section 10.2 or Section 10.3, as applicable, in each case with limits of not less than *** per occurrence and in the aggregate. Insurance shall be procured with carriers having an A.M. Best Rating of A-VII or better. All deductibles/retentions of the named insured shall be the sole responsibility of the named insured. Products liability and/or clinical trials coverage shall be maintained for *** following termination or expiration of this Agreement.

11. MISCELLANEOUS.

11.1. HSR Filing. Each of OPKO and Pfizer will, by January 7, 2015 (or such later time as may be agreed to in writing by the Parties) file with the United States Federal Trade Commission and the Antitrust Division of the United States Department of Justice any HSR Filing required of it under the HSR Act, and shall request early termination in such filing. The Parties will cooperate with one another to the extent necessary in the preparation of any such HSR Filing. Each Party will be responsible for its own costs, expenses and filing fees associated with any such HSR Filing; *provided*, *however*, *that* Pfizer will be solely responsible for any fees (other than penalties that may be incurred as a result of actions or omissions on the part of OPKO) required to be paid to any Governmental Authority in connection with submitting any such HSR Filing. Notwithstanding the foregoing, nothing in this Agreement shall obligate, or be construed to obligate, Pfizer (i) to dispose, transfer or hold separate, or cause any of its Affiliates to dispose, transfer or hold separate any assets or operations, or to commit or to cause OPKO or any of its Affiliates to dispose of any assets; (ii) to discontinue or cause any of its Affiliates to discontinue offering any product or service, or to commit to cause OPKO or any of its Affiliates to discontinue offering any product or service; or (iii) to make or cause any of its Affiliates to make any commitment (to any Governmental Authority or otherwise) regarding its future operations or the future operations of OPKO or any of its Affiliates, and OPKO shall not agree, commit or consent to any of such restrictions with respect to itself or any its Affiliates, or permit any of its Affiliates to do so, in each case without the prior written consent of Pfizer.

11.2. Termination upon HSR Denial. In the event that the Parties make an HSR Filing under Section 11.1, this Agreement will terminate (a) at Pfizer's election, immediately upon

notice to OPKO, in the event that the United States Federal Trade Commission or the United States Department of Justice seeks a preliminary injunction under the HSR Act against OPKO and Pfizer to enjoin the transactions contemplated by this Agreement, or (b) at the election of either Party, immediately upon notice to the other Party, in the event that the United States Federal Trade Commission or the United States Department of Justice obtains a preliminary injunction under the HSR Act against OPKO or Pfizer to enjoin the transactions contemplated by this Agreement. Notwithstanding the foregoing, this Section 11.2 will not apply in the event that Pfizer reasonably determines that an HSR Filing is not required.

11.3. Other Government Approvals. Each of OPKO and Pfizer will cooperate with the other Party and use such Party's Commercially Reasonable Efforts to make all registrations, filings and applications, to give all notices and to obtain as soon as practicable all governmental or other consents, transfers, approvals, orders, qualifications, authorizations, permits and waivers, if any, and to do all other things necessary or desirable for the consummation of the transactions as contemplated hereby.

11.4. Assignment. Neither this Agreement nor any interest hereunder shall be assignable by a Party without the prior written consent of the other Party, except as follows: (a) a Party may assign its rights and obligations under this Agreement by way of a sale of itself or of the portion of its business to which this Agreement relates, through a merger, sale of assets and/or sale of stock or ownership interest provided that the assignee shall expressly agree to be bound by such Party's obligations under this Agreement and that such sale is not primarily for the benefit of its creditors, or (b) such Party may assign its rights and obligations under this Agreement to any of its Affiliates, provided that the assignee shall expressly agree to be bound by such Party's obligations under this Agreement and that such Party shall remain liable for all of its rights and obligations under this Agreement. In addition, either Party may assign its rights and obligations under this Agreement to a Third Party where such Party or its Affiliate is required, or makes a good faith determination based on advice of counsel, to divest a Licensed Product in order to comply with Applicable Law or the order of any Governmental Authority as a result of a merger or acquisition, provided that the assignee shall expressly agree to be bound by the Party's obligations under this Agreement. Each Party shall promptly notify the other Party of any assignment or transfer under the provisions of this Section 11.4. This Agreement shall be binding upon the successors and permitted assigns of the Parties and the name of a Party appearing herein shall be deemed to include the names of such Party's successors and permitted assigns to the extent necessary to carry out the intent of this Agreement. Any assignment not in accordance with this Section 11.4 shall be void.

11.5. Further Actions. Each Party shall duly execute and deliver, or cause to be duly executed and delivered, such further instruments and do and cause to be done such further ministerial, administrative, or similar acts and things, including the filing of such assignments, agreements, documents and instruments, as may be necessary or as the other Party may reasonably request in connection with this Agreement or to carry out more effectively the provisions and purposes hereof, or to better assure and confirm unto the other Party its rights and remedies under this Agreement.

11.6. Performance. To the extent that the performance of a Party's obligations hereunder is adversely affected by the other Party's failure to perform its obligations hereunder, the impact of such performance failure will be taken into account in determining whether such Party has used its requisite efforts (which may be Commercially Reasonable Efforts) to perform any such affected obligations as required by this Agreement.

11.7. Force Majeure. Each Party shall be excused from liability and from the performance of its obligations or the obligations of its Affiliates and/or sublicensees under this Agreement to the extent that such performance is prevented in whole or in part by Force Majeure and the non-performing Party promptly provides written notice of such Force Majeure to the other Party. Such excuse shall be continued so long as the condition constituting Force Majeure continues and the non-performing Party takes Commercially Reasonable Efforts to remove the condition. "Force Majeure" shall include conditions beyond the control of the Party or its Affiliates and/or sublicensees, including an act of God, voluntary or involuntary compliance with any regulation, Applicable Law or order of any government, war, act of terror, civil commotion, labor strike or lock-out, epidemic, failure or default of public utilities or common carriers, destruction of production facilities or materials by fire, earthquake, or storm, or like catastrophe. Each Party shall notify the other Party promptly in writing following the occurrence or after becoming aware of the occurrence of any Force Majeure, whereupon the Parties shall promptly co-operate so as to mitigate the effects of such Force Majeure and the Party suffering the Force Majeure shall be obliged to use reasonable efforts to overcome the circumstances thereof. In the event a Party suspends its performance for a period of three (3) or more months due to a Force Majeure, the Parties shall consult in good faith to develop and implement a plan for mitigating the same.

11.8. Notices. Each communication and document made or delivered by one Party to the other Party under this Agreement shall be made in the English language. All notices, consents, approvals, request or other communications required hereunder given by one Party to the other shall be in writing and made by (a) personal delivery, (b) first class certified mail with return receipt requested or (c) next-day delivery by major international courier with confirmation of delivery. Notices will be deemed given either upon receipt or as of the date of certified delivery by a reputable delivery service, whichever is earlier.

To Pfizer:

Chief Counsel, Global Innovative Pharma Business
Pfizer Inc.
235 East 42nd Street
New York, New York 10017-5755

with a copy to:

Vice President, GIP Global Medicines Development Group
Rare Disease Lead
Pfizer Inc.
400 Campus Drive
Collegeville, PA 19426
(484) 865-0226

To OPKO:

Steven D. Rubin
Executive Vice President
OPKO Health, Inc.
4400 Biscayne Boulevard
Miami, Florida 33137
(305) 575-6015
srubin@opko.com

with a copy to:

Kate Inman
General Counsel
OPKO Health, Inc.
4400 Biscayne Blvd.
Miami, FL 33137
Office: 305.575.4138
kinman@opko.com

and a copy to:

Asher Rubin
Hogan Lovells US LLP
100 International Drive, Suite 2000
Baltimore, MD 21202
Office: 410.659.2777
asher.rubin@hoganlovells.com

11.9. Amendment. No amendment, modification or supplement of any provision of this Agreement shall be valid or effective unless made in writing and signed by a duly authorized representative of each Party.

11.10. Waiver. No provision of this Agreement shall be waived by any act, omission or knowledge of a Party or its agents or employees except by an instrument in writing expressly waiving such provision and signed by a duly authorized representative of the waiving Party. The waiver by either Party of any breach of any provision by the other Party shall not be construed to be a waiver of any succeeding breach of such provision or a waiver of the provision itself.

11.11. Severability. If any clause or portion thereof in this Agreement is for any reason held to be invalid, illegal or unenforceable, the same shall not affect any other portion of this Agreement, as it is the intent of the Parties that this Agreement be construed in such fashion as to maintain its existence, validity and enforceability to the greatest extent possible. In any such event, this Agreement shall be construed as if such clause or portion thereof had never been contained in this Agreement, and there shall be deemed substituted therefor such provision as will most nearly carry out the intent of the Parties as expressed in this Agreement to the fullest extent permitted by Applicable Law.

11.12. Export Control. This Agreement is made subject to any restrictions concerning the export of products or technical information from the United States or other countries that may be imposed upon or related to OPKO or Pfizer from time to time. Each Party agrees that it will not export, directly or indirectly, any technical information acquired from the other Party under this Agreement or any products using such technical information to a location or in a manner that at the time of export requires an export license or other governmental approval, without first obtaining the written consent to do so from the appropriate agency or other governmental entity.

11.13. Dispute Resolution. Except as otherwise set forth in this Agreement, if any dispute or disagreement arises between Pfizer and OPKO in respect of this Agreement, they will follow the following procedures in an attempt to resolve the dispute or disagreement:

11.13.1. The Party claiming that such a dispute exists will give notice in writing ("**Notice of Dispute**") to the other Party of the nature of the dispute.

11.13.2. Within thirty (30) days of receipt of a Notice of Dispute, a representative of each of the Parties who is at least a senior vice president level or higher will meet at a mutually agreed-upon time and location (which may include by teleconference) for the purpose of resolving such dispute.

11.13.3. If, within a further period of sixty (60) days, the dispute has not been resolved, or if, for any reason, the meeting described in Section 11.13.2 has not been held within thirty (30) days of initial receipt of the Notice of Dispute, then the Parties agree that (i) *** or if such dispute is not expressly stated to be resolved through expedited arbitration in accordance with Section 11.14, ***, and (ii) *** or if such dispute is expressly stated to be resolved through expedited arbitration in accordance with Section 11.14, then ***.

Notwithstanding any provision of this Agreement to the contrary, either Party may immediately initiate litigation in any court of competent jurisdiction seeking any remedy at law or in equity, including the issuance of a preliminary, temporary or permanent injunction, to preserve or enforce its rights under this Agreement. The provisions of this Section 11.13 shall survive for *** from the date of termination or expiration of this Agreement.

11.14. Expedited Dispute Resolution. The following disputes will be finally settled by binding arbitration in accordance with the procedures set forth on Schedule 11.14: (a) any dispute relating to the existence of a Development Limitation referred by a Party for expedited arbitration in accordance with Section 11.13.3; and (b) any other dispute hereunder that a Party has the express right to refer for resolution through expedited arbitration in accordance with this Section 11.14.

11.15. Governing Law. This Agreement, and all claims arising under or in connection therewith, shall be governed by and interpreted in accordance with the substantive laws of the State of New York, without regard to conflict of law principles thereof.

11.16. Jurisdiction. Each Party to this Agreement hereby (a) irrevocably submits to the exclusive jurisdiction of the state courts of the State of New York or the United States District Court for the Southern District of New York for the purpose of any and all actions, suits or proceedings arising in whole or in part out of, related to, based upon or in connection with this Agreement or the subject matter hereof, (b) waives to the extent not prohibited by Applicable Law, and agrees not to assert, by way of motion, as a defense or otherwise, in any such action, any claim that it is not subject personally to the jurisdiction of the above-named courts, that its property is exempt or immune from attachment or execution, that any such action brought in one of the above-named courts should be dismissed on grounds of *forum non conveniens* or should be transferred to any court other than one of the above-named courts, or that this Agreement or the subject matter hereof may not be enforced in or by such court and (c) agrees not to commence any such action other than before one of the above-named courts nor to make any motion or take any other action seeking or intending to cause the transfer or removal of any such action to any court other than one of the above-named courts, whether on the grounds of *forum non conveniens* or otherwise.

11.17. No Jury Trial. THE PARTIES EXPRESSLY WAIVE AND FOREGO ANY RIGHT TO TRIAL BY JURY.

11.18. Entire Agreement. This Agreement, together with its Exhibits, sets forth the entire agreement between the Parties as to its subject matter and supersedes all proposals, oral or written, and all other prior communications between the Parties with respect to such subject matter, including, without limitation, that certain Confidential Disclosure Agreement by and

between the Parties, dated *** (the "**CDA**"), which is hereby terminated as of the Original Effective Date. The Parties acknowledge and agree that, as of the Original Effective Date, all Confidential Information (as defined in the CDA) disclosed by a Party pursuant to the CDA shall be considered Confidential Information of such Party and subject to the terms set forth in this Agreement.

11.19. Independent Contractors. The Parties are independent contractors under this Agreement. Nothing herein contained shall be deemed to create an employment, agency, joint venture or partnership relationship between the Parties hereto or any of their agents or employees, or any other legal arrangement that would impose liability upon one Party for the act, or failure to act, of the other Party. Neither Party shall have any express or implied power to enter into any contracts or commitments or to incur any liabilities in the name of, or on behalf of, the other Party, or to bind the other Party in any respect whatsoever. The Parties acknowledge and agree that neither Party owes the other any fiduciary or similar duties or obligations by virtue of the relationship created by this Agreement. Without limiting the foregoing, the Parties also acknowledge and agree that if a court of competent jurisdiction or an arbitrator should determine that, notwithstanding the terms of this Section 11.19, such fiduciary or other obligations exist, the Parties hereby waive such duties and obligations and agree not to assert or rely upon such duties or obligations in connection with any dispute arising out of or relating to this Agreement.

11.20. No Third Party Rights or Obligations. No provision of this Agreement shall be deemed or construed in any way to result in the creation of any rights or obligations in any Person not a Party to this Agreement. However, either Party may decide, in its sole discretion, to use one or more of its Affiliates to perform its obligations and duties hereunder, provided that such Party shall remain liable hereunder for the performance by any such Affiliate(s) of any such obligations.

11.21. Headings. The descriptive headings of this Agreement are included herein for ease of reference only and shall be of no force or effect in construing or interpreting any of the provisions of this Agreement.

11.22. Counterparts. This Agreement may be executed in one or more counterparts, each of which shall be deemed an original and all of which together shall constitute one and the same document. Counterparts may be signed and delivered by facsimile or PDF file, with the same effect as if delivered personally.

11.23. OPKO Parent Co. Guaranty. OPKO Health, Inc., a corporation formed under the laws of Delaware with offices at 4400 Biscayne Blvd., Miami, Florida 33138, and a parent company of OPKO (the "**Guarantor**"), (i) hereby unconditionally guarantees the due and punctual payment and performance of all of OPKO's obligations and commitments under both (a) this Agreement, with respect to OPKO's obligations and commitments arising following the Amendment Effective Date and (b) the Original Agreement, with respect to OPKO's obligations and commitments arising following the Original Execution Date but prior to the Amendment Effective Date and (ii) without limiting the foregoing or being limited thereby, hereby further covenants to procure and cause OPKO and its Affiliates to take such actions that may be necessary or useful to support and duly complete the performance of OPKO's obligations and commitments under both (a) this Agreement, with respect to OPKO's obligations and commitments arising following the Amendment Effective Date and (b) the Original Agreement, with respect to OPKO's obligations and commitments arising following the Original Execution Date but prior to the Amendment Effective Date, with respect to each, including in relation to Pfizer's exercise of its rights under this Agreement and the Original Agreement (collectively, (i) and (ii) the "**Parent Guaranty**"). This Parent Guaranty is an irrevocable guaranty of payment

and performance (and not just of collection) and shall continue in effect notwithstanding any extension or modification of the terms of this Agreement, any assumption of any such guaranteed obligations by any other party or any other act or event that might otherwise operate as a legal or equitable discharge of Guarantor. Guarantor hereby waives all its rights to subrogation arising out of any payment or performance by Guarantor under this Parent Guaranty. The obligations of Guarantor hereunder shall be absolute and unconditional, and shall not be affected by or contingent upon (I) the liquidation or dissolution of, or the merger or consolidation of OPKO with or into any corporation, or any sale or transfer by OPKO or all or any part of its or their property or assets, (II) the bankruptcy, receivership, insolvency, reorganization or similar proceedings involving or affecting OPKO or (III) any modification, alteration, amendment or addition of or to the Agreement. Guarantor hereby waives all suretyship defenses and protest, notice of protest, demand for performance, diligence, notice of any other action at any time taken or omitted by Pfizer and, generally, all demands and notices of every kind in connection with this Parent Guaranty, and OPKO's obligations hereby guaranteed, and which Guarantor may otherwise assert against Pfizer. This Parent Guaranty shall continue to be effective or shall be reinstated, as the case may be, if at any time payment or performance of any of the obligations of OPKO under this Agreement is rescinded or must otherwise be restored or returned by Pfizer upon the insolvency, bankruptcy or reorganization of OPKO or otherwise. Guarantor acknowledges that each of the waivers set forth in this Parent Guaranty is made with full knowledge of its significance and consequences and under the circumstances the waivers are reasonable and not contrary to public policy. If any of said waivers is determined to be contrary to any applicable law or public policy, such waivers shall be effective only to the extent permitted by law.

[Signature page to follow]

IN WITNESS WHEREOF, authorized representatives of the Parties have duly executed this Agreement as of the Amendment Execution Date.

PFIZER INC.

By: /s/ Suneet Varma
Name: Suneet Varma
Title: Global President, RD BU

OPKO IRELAND LTD.

By: /s/ J. Gaul
Name: J. Gaul
Title: Director

As a party to this Agreement solely with respect to the provisions of Section 11.23:

OPKO HEALTH, INC.

By: /s/ Steven D. Rubin
Name: Steven D. Rubin
Title: Executive Vice President - Administration

CERTAIN IDENTIFIED INFORMATION HAS BEEN OMITTED FROM THIS EXHIBIT BECAUSE IT IS BOTH NOT MATERIAL AND WOULD LIKELY CAUSE COMPETITIVE HARM TO THE REGISTRANT IF PUBLICLY DISCLOSED. OMISSIONS ARE IDENTIFIED AS [***]

Schedule 1.36 – Compounds

Schedule 1.56 – ***

Schedule 1.70 – Genotropin Products

Schedule 1.86 – ***

Schedule 1.98 – Licensed Patent Rights

Schedule 1.190 – ***

Schedule 3.10.3(b) – ***

Schedule 5.4 – Example Profit Share Calculation

Schedule 8.3 – OPKO Disclosure Schedule

Schedule 11.14 – Expedited Dispute Resolution

Exhibit A Development Plan

Exhibit B Development Budget

Exhibit C Press Release

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Schedule 1.36 – Compounds

***

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Schedule 1.56 – ***

Each of the following countries:

*****

Schedule 1.70 - Genotropin Products

The Genotropin products sold by Pfizer and its Affiliates under various trademarks in various jurisdictions worldwide:

***

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Schedule 1.86 – ***

Each of the following countries:

- *****

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Schedule 1.98 - Licensed Patent Rights

(a) - Licensed hGH-Specific Patents

U.S. Patents and Applications

***

Patents and Applications Outside of U.S.

***

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(b) - Licensed OPKO Core Patents

U.S. Patents and Applications

***

Patents and Applications Outside of U.S.

***

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Schedule 1.190 – ***

*****

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Schedule 3.10.3(b) – Additional Pediatric Indications

***

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Schedule 5.4 – Example Profit Share Calculation

***

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Schedule 8.3 – OPKO Disclosure Schedule

***

Schedule 11.14 – Expedited Dispute Resolution

Any dispute that is referred to resolution in accordance with the procedures set forth in this Schedule 11.14 will be submitted to fast-track, binding arbitration in accordance with the following terms:

1. Arbitration will be conducted in New York, New York under the rules of the American Arbitration Association (the " **AAA**") in effect at the time of submission for the resolution of commercial disputes in the most expedited manner permitted by such rules. The Parties will mutually select, within ten (10) days of a dispute being referred to arbitration as set forth herein, a single arbitrator to resolve such dispute. If the Parties, acting in good faith, are unable to agree on an arbitrator during such ten (10) day period, then the Parties will promptly request that the AAA select the arbitrator within ten (10) days following the Parties making such a request of the AAA. The arbitrator will be a professional in business or licensing *** (ii) *** with applicable Regulatory Authorities and (iii) ***. Additionally, the arbitrator shall not be or have been an employee, consultant, officer, director or stockholder of either Party or any Affiliate of either Party and not have a conflict of interest under any applicable rules of ethics. The cost of the arbitration will be borne equally by the Parties. Except in a proceeding to enforce the results of the arbitration or as otherwise required by Applicable Law, neither Party nor any arbitrator may disclose (a) the existence, content or results of any arbitration hereunder, (b) the content of any Brief submitted by a Party pursuant to Paragraph 2 hereof or (c) the content of any response to a Brief submitted by a Party pursuant to Paragraph 3 hereof, with respect to (a)-(c), without the prior written agreement of each Party.

2. *** after such matter is referred to arbitration (provided that, if an arbitrator has not been selected within such *** period, then within *** following the selection of an arbitrator), each Party will provide the arbitrator with a proposal and written memorandum in support of its position regarding the dispute at issue, as well as any documentary evidence it wishes to provide in support thereof (each a "**Brief**"), and the arbitrator will provide each Party's Brief to the other Party after it receives it from both Parties.

3. Within *** after a Party submits its Brief to the arbitrator as set forth in Paragraph 2 hereof, the other Party will have the right to respond thereto. The response and any material in support thereof will be provided to the arbitrator and the other Party.

4. The arbitrator will have the right to meet with the Parties as necessary to inform the arbitrator's determination and to perform independent research and analysis. Within *** of the receipt by the arbitrator of both Parties' responses (or expiration of the *** period

if any Party fails to submit a response), the arbitrator will *** in writing; *provided that* ***.

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Exhibit A – Development Plan

[See attached.]

***

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Exhibit B – Development Budget

[See attached.]

***

Exhibit C – Press Release

OPKO and Pfizer Enter into Global Agreement for
OPKO's Long-Acting Human Growth Hormone (hGH-CTP)

- [*hGH-CTP in global clinical development for the treatment of pediatric and adult growth hormone deficiency (GHD)*
- *hGH-CTP has potential to reduce dosing frequency of human growth hormone to single weekly injection from current standard of daily injection*
- *OPKO to receive upfront payment of $295 million and eligible to receive up to an additional $275 million upon achievement of regulatory milestones*
- *Pfizer to obtain exclusive license to commercialize hGH-CTP globally*

Miami, FL, and New York, NY, December [XX] - OPKO Health, Inc. (NYSE:OPK) and Pfizer Inc. (NYSE: PFE) announced today that they have entered into a worldwide agreement for the development and commercialization of OPKO's long-acting hGH-CTP for the treatment of growth hormone deficiency (GHD) in adults and children, as well as for the treatment of growth failure in children born small for gestational age (SGA) who fail to show catch-up growth by 2 years of age. hGH-CTP has the potential to reduce the required dosing frequency of human growth hormone to a single weekly injection from the current standard of one injection per day. hGH-CTP is currently in a global phase 3 trial in adults and a global phase 2 trial in children and has orphan drug designation in the U.S. and Europe for both adults and children with GHD.

Under the terms of the agreement, OPKO will receive upfront payment of $295 million and is eligible to receive up to an additional $275 million upon the achievement of certain regulatory milestones. Pfizer will receive the exclusive license to commercialize hGH-CTP worldwide.

In addition, OPKO is eligible to receive initial royalty payments associated with the commercialization of hGH-CTP for Adult GHD which is subject to regulatory approval. Upon the launch of hGH-CTP for Pediatric GHD, which is subject to regulatory approval, the royalties will transition to gross profit sharing for both hGH-CTP and Pfizer's Genotropin.

OPKO will lead the clinical activities and will be responsible for funding the development programs for the key indications, which includes Adult and Pediatric GHD and Pediatric SGA. Pfizer will be responsible for all development costs for additional indications as well as all post-marketing studies. In addition, Pfizer will fund the commercialization activities for all indications and lead the manufacturing activities covered by the global development plan.

"We believe this collaboration will help advance our commitments to patients with Adult and Pediatric Growth Hormone Deficiency as we believe Pfizer's strengths, expertise and presence in the

human growth hormone space makes them the ideal partner for our hGH-CTP program. Our collaboration enables full alignment between Pfizer and OPKO to optimize development and potentially bring an innovative treatment to patients. We believe that the global growth hormone market is currently valued at more than $3 billion, and believe that hGH-CTP has the potential to be the best in class long-acting growth hormone product. Our long acting human growth hormone is our most advanced product candidate utilizing our CTP technology to extend the half life of a broad range of therapeutic peptides and proteins. By reducing the number of injections, our technology can improve patient compliance," said OPKO's CEO, Phillip Frost, M.D.

"This agreement strengthens Pfizer's commitment to rare diseases, and we are pleased to work with OPKO to help provide a potential next-generation therapy for patients with Adult and Pediatric Growth Hormone Deficiency," said Geno Germano, Group President, Pfizer Global Innovative Pharma (GIP). "Long-acting growth hormone is the first innovation in the GHD space in 20 years. hGH-CTP would be complementary to our existing Genotropin franchise, and could potentially provide an option that could improve patients' adherence to treatment with once weekly dosing."

The transaction is subject to customary Hart-Scott-Rodino approval and is expected to close during the first-quarter 2015.

About hGH-CTP

hGH-CTP is a novel, long-acting recombinant human growth hormone analog being developed by OPKO for the treatment of children with growth failure due to inadequate endogenous growth hormone secretion, and adults with growth hormone deficiency (GHD) of either childhood or adult-onset etiology. hGH-CTP is intended to reduce the burden of daily injection therapy by requiring only weekly injections potentially improving compliance and treatment outcomes. OPKO's proprietary technology allows the company to extend the hormone's half-life without the use of polymers, encapsulation techniques, or nanoparticles. This technology is based on a natural peptide, the C-terminal peptide (CTP) of the beta chain of human chorionic gonadotropin (hCG). OPKO has an ongoing pivotal Phase 3 clinical trial in adults for hGH-CTP and a Phase 2 clinical trial in pediatric patients. hGH-CTP has been granted orphan drug designation in the U.S. and Europe for both adults and children with growth hormone deficiency.

About OPKO Health

OPKO is a multinational biopharmaceutical and diagnostics company that seeks to establish industry-leading positions in large, rapidly growing markets by leveraging its discovery, development and commercialization expertise and novel and proprietary technologies. For more information, visit http://www.OPKO.com.

Pfizer and Rare Diseases

Rare diseases are among the most serious of all illnesses and impact millions of patients worldwide, representing an opportunity to apply our knowledge and expertise to help make a significant impact in addressing unmet medical needs. The Pfizer focus on rare diseases builds on more than a decade of experience and a global portfolio of 22 medicines approved worldwide that treat rare diseases in the areas of hematology, neuroscience, inherited metabolic disorders, pulmonology, and oncology.

About Pfizer Inc.

At Pfizer, we apply science and our global resources to bring therapies to people that extend and significantly improve their lives. We strive to set the standard for quality, safety and value in the discovery, development and manufacture of health care products. Our global portfolio includes medicines and vaccines as well as many of the world's best-known consumer health care products. Every day, Pfizer colleagues work across developed and emerging markets to advance wellness, prevention, treatments and cures that challenge the most feared diseases of our time. Consistent with our responsibility as one of the world's premier innovative biopharmaceutical companies, we collaborate with health care providers, governments and local communities to support and expand access to reliable, affordable health care around the world. For more than 150 years, Pfizer has worked to make a difference for all who rely on us. To learn more, please visit us at www.pfizer.com.

SAFE HARBOR STATEMENT

[This press release contains "forward-looking statements," as that term is defined under the Private Securities Litigation Reform Act of 1995 (PSLRA), which statements may be identified by words such as "expects," "plans," "projects," "will," "may," "anticipates," "believes," "should," "intends," "estimates," and other words of similar meaning, including statements regarding expected benefits of hGH-CTP), whether the collaboration with Pfizer will be successful, whether OPKO's clinical trials for adult and pediatric growth hormone deficiency will support marketing approval, whether hGH-CTP will be successfully developed or commercialized, expectations regarding the product, its efficacy, safety and market potential, as well as other non-historical statements about our expectations, beliefs or intentions regarding our business, technologies and products, financial condition, strategies or prospects. Many factors could cause our actual activities or results to differ materially from the activities and results anticipated in forward-looking statements. These factors include those described in our filings with the Securities and Exchange Commission, as well as the risks inherent in funding, developing and obtaining regulatory approvals of new, commercially-viable and competitive products and treatments. In addition, forward-looking statements may also be adversely affected by general market factors, competitive product development, product availability, federal and state regulations and legislation, the regulatory process for new products and indications, manufacturing issues that may arise, patent positions and litigation, among other factors. The forward-looking statements contained in this press release speak only as of the date the statements were made, and we do not undertake any obligation to update forward-looking statements. We intend that all forward-looking statements be subject to the safe-harbor provisions of the PSLRA.]

CERTAIN IDENTIFIED INFORMATION HAS BEEN OMITTED FROM THIS EXHIBIT BECAUSE IT IS BOTH NOT MATERIAL AND WOULD LIKELY CAUSE COMPETITIVE HARM TO THE REGISTRANT IF PUBLICLY DISCLOSED. OMISSIONS ARE IDENTIFIED AS [***]

PFIZER DISCLOSURE NOTICE*: The information contained in this release is as of December [ ], 2014. Pfizer assumes no obligation to update forward-looking statements contained in this release as the result of new information or future events or developments.*

This release contains forward-looking information about an agreement between Pfizer and OPKO for the development and commercialization of hGH-CTP that involves substantial risks and uncertainties that could cause actual results to differ materially from those expressed or implied by such statements. Forward-looking statements include, among other things, those regarding hGH-CTP and the collaboration, including their potential benefits and market potential, as well as those about the anticipated timing of the closing of the transaction. Risks and uncertainties include, among other things, the uncertainties inherent in research and development, including the ability to meet anticipated clinical study commencement and completion dates as well as the possibility of unfavorable study results; whether and when biologics license applications may be filed in any jurisdictions for hGH-CTP for any indication; whether and when any such applications may be approved by regulatory authorities, which will depend on the assessment by such regulatory authorities of the benefit-risk profile suggested by the totality of the efficacy and safety information submitted; decisions by regulatory authorities regarding labeling and other matters that could affect the availability or commercial potential of hGH-CTP in any such indications; risks relating to the satisfaction of conditions to closing the transaction in the anticipated timeframe or at all; and competitive developments.

A further description of risks and uncertainties can be found in Pfizer's Annual Report on Form 10-K for the fiscal year ended December 31, 2013 and in its subsequent reports on Form 10-Q, including in the sections thereof captioned "Risk Factors" and "Forward-Looking Information That May Affect Future Results", as well as in its subsequent reports on Form 8-K, all of which are filed with the SEC and available at www.sec.gov and www.pfizer.com.

Contact:]

□

Exhibit 31.1

CERTIFICATIONS

I, Phillip Frost, certify that:

(1) I have reviewed this Quarterly Report on Form 10-Q of OPKO Health, Inc.;

(2) Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

(3) Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

(4) The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

(a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

(b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

(c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

(d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

(5) The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

(a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

(b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: July 31, 2020

/s/ Phillip Frost, M.D.

Phillip Frost, M.D.
Chief Executive Officer

Exhibit 31.2

CERTIFICATIONS

I, Adam Logal, certify that:

(1) I have reviewed this Quarterly Report on Form 10-Q of OPKO Health, Inc.;

(2) Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

(3) Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

(4) The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

(a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

(b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

(c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

(d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

(5) The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

(a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

(b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: July 31, 2020

/s/ Adam Logal

Adam Logal

Senior Vice President and Chief Financial Officer

Exhibit 32.1

Certification Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002

(Subsections (a) and (b) of Section 1350, Chapter 63 of Title 18, United States Code)

Pursuant to 18 U.S.C. Section 1350, as adopted pursuant Section 906 of the Sarbanes-Oxley Act of 2002, I, Phillip Frost, Chief Executive Officer of OPKO Health, Inc. (the "Company"), hereby certify that:

The Quarterly Report on Form 10-Q for the quarterly period ended June 30, 2020 (the "Form 10-Q") of the Company fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934, and the information contained in the Form 10-Q fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: July 31, 2020

/s/ Phillip Frost, M.D.

Phillip Frost, M.D.

Chief Executive Officer

Exhibit 32.2

Certification Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002

(Subsections (a) and (b) of Section 1350, Chapter 63 of Title 18, United States Code)

Pursuant to 18 U.S.C. Section 1350, as adopted pursuant Section 906 of the Sarbanes-Oxley Act of 2002, I, Adam Logal, Chief Financial Officer of OPKO Health, Inc. (the "Company"), hereby certify that:

The Quarterly Report on Form 10-Q for the quarterly period ended June 30, 2020 (the "Form 10-Q") of the Company fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934, and the information contained in the Form 10-Q fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: July 31, 2020

/s/ Adam Logal

Adam Logal

Senior Vice President and Chief Financial Officer