UNITED STATES SECURITIES AND EXCHANGE COMMISSION

WASHINGTON, D.C. 20549

FORM 10-Q

(Mai	rk One)		
X	QUARTERLY REPORT PURSUANT TO SECTION 1934	ON 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT	ГОГ
	For the quarterly p	oeriod ended March 31, 2019 OR	
	TRANSITION REPORT PURSUANT TO SECTIO 1934	N 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT	ΓOF
	1	riod from to File Number: 001-36225	
	KINDRED BIO	OSCIENCES, INC.	
	(Exact name of regis	trant as specified in its charter)	
	Delaware	46-1160142	
	(State of incorporation)	(I.R.S. Employer Identification No.)	
	Burlingan (Address of princ	ore Highway, Suite 200 ne, California 94010 ipal executive office) (Zip code) ione number: (650) 701-7901	
durir		uired to be filed by Section 13 or 15(d) of the Securities Exchange Act of I rant was required to file such reports), and (2) has been subject to such filing	
Regu		y every Interactive Data File required to be submitted pursuant to Rule 40: s (or for such shorter time that the registrant was required to submit such	5 of
emer		in accelerated filer, a non-accelerated filer, a smaller reporting company, or "accelerated filer," "smaller reporting company" and "emerging growth c	
Larg	ge accelerated filer	Accelerated filer	X
Non	-accelerated filer	Smaller reporting company	X
		Emerging growth company	
	emerging growth company, indicate by check mark if the registrant had financial accounting standards provided pursuant to Section 13(a)	has elected not to use the extended transition period for complying with an of the Exchange Act. \Box	ıy new or
Indic	cate by checkmark whether the Registrant is a shell company (as defin	ned in Rule 12b-2 of the Exchange Act). Yes □ No ⊠	

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, \$0.0001 par value	KIN	The NASDAQ Stock Market LLC
Preferred Stock Purchase Rights	KIN	The NASDAQ Stock Market LLC

As of May 1, 2019, Kindred Biosciences, Inc. had outstanding 39,005,082 shares of common stock, \$0.0001 par value.

Kindred Biosciences, Inc.

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PART I - FINANCIAL INFORMATION

ITEM 1. FINANCIAL STATEMENTS

Kindred Biosciences, Inc. Condensed Consolidated Balance Sheets (In thousands, except share and per share amounts)

	N	Iarch 31, 2019	December 31, 2018		
		(Unaudited)			
ASSETS					
Current assets:					
Cash and cash equivalents	\$	68,598	\$	56,302	
Short-term investments		27,390		17,630	
Accounts receivable		275		903	
Inventories		4,525		3,570	
Prepaid expenses and other		1,924		1,664	
Total current assets		102,712		80,069	
Property and equipment, net		28,136		26,343	
Operating lease right-of-use assets		1,763		_	
Other assets		70		70	
Total assets	\$	132,681	\$	106,482	
LIABILITIES AND STOCKHOLDERS' EQUITY					
Current liabilities:					
Accounts payable	\$	1,236	\$	3,576	
Accrued compensation		2,276		3,436	
Accrued liabilities		7,071		8,169	
Current portion of operating lease liabilities		708		_	
Total current liabilities		11,291		15,181	
Long-term liability					
Long-term operating lease liabilities		1,096		_	
Long-term deferred rent		_		94	
Total liabilities		12,387		15,275	
Commitments and contingencies (Note 8)					
Stockholders' equity:	10.054				
Common stock, \$0.0001 par value; 100,000,000 shares authorized; 38,927,955 and 33,94 shares issued and outstanding at March 31, 2019 and December 31, 2018, respectively	18,254	4		3	
Additional paid-in capital		298,028		252,885	
Accumulated other comprehensive loss		(13)		(11)	
Accumulated deficit		(177,725)		(161,670)	
Total stockholders' equity		120,294	_	91,207	
Total liabilities and stockholders' equity	\$	132,681	\$	106,482	

The accompanying notes are an integral part of these condensed consolidated financial statements.

Kindred Biosciences, Inc. Condensed Consolidated Statements of Operations and Comprehensive Loss (In thousands, except per share amounts) (Unaudited)

	 Three months e	ended M	farch 31,
	2019		2018
Net product revenues	\$ 515	\$	_
Operating costs and expenses:			
Cost of product revenues	92		_
Research and development	7,152		5,346
Selling, general and administrative	9,901		4,902
Total operating costs and expenses	17,145		10,248
	_		
Loss from operations	(16,630)		(10,248)
Interest and other income, net	575		277
Net loss	(16,055)		(9,971)
Change in unrealized gains or losses on available-for-sale securities	(2)		(11)
Comprehensive loss	\$ (16,057)	\$	(9,982)
Net loss per share, basic and diluted	\$ (0.42)	\$	(0.36)
Weighted-average number of common shares outstanding, basic and diluted	 37,786		27,986

The accompanying notes are an integral part of these condensed consolidated financial statements.

Kindred Biosciences, Inc. Condensed Consolidated Statements of Cash Flows (In thousands) (Unaudited)

	7	Three months e	nded N	Tarch 31,		
	2019			2018		
Cash Flows from Operating Activities						
Net loss	\$	(16,055)	\$	(9,971)		
Adjustments to reconcile net loss to net cash used in operating activities:						
Stock-based compensation expense		1,860		1,524		
Depreciation and amortization expense		500		144		
Loss on disposal of property and equipment		1		_		
Amortization of discount on marketable securities		(81)		(29)		
Changes in operating assets and liabilities:						
Accounts receivable		628		_		
Inventories		(955)				
Prepaid expenses and other		(260)		(573)		
Accounts payable		(1,575)		(1,227)		
Accrued liabilities and accrued compensation		(2,717)		(1,090)		
Net cash used in operating activities		(18,654)	•	(11,222)		
Cash Flows from Investing Activities						
Purchases of investments		(20,281)		(5,279)		
Sales of investments		_		800		
Maturities of investments		10,600		25,875		
Purchases of property and equipment		(2,656)		(409)		
Proceeds from sale of property and equipment		3		_		
Net cash (used in) provided by investing activities		(12,334)		20,987		
Cash Flows from Financing Activities						
Exercises of stock options		652		165		
Payment of restricted stock awards and units tax liability on net settlement		(493)		(247)		
Net proceeds from sale of common stock		43,125		_		
Net cash provided by (used in) financing activities		43,284	-	(82)		
Net change in cash and cash equivalents		12,296		9,683		
Cash and cash equivalents at beginning of period		56,302		34,813		
Cash and cash equivalents at end of period	\$	68,598	\$	44,496		
Supplemental disclosure of non-cash investing and financing activities:						
Purchase of property and equipment included in accounts payable and accrued liabilities	\$	1,600	\$	337		

The accompanying notes are an integral part of these condensed consolidated financial statements.

Kindred Biosciences, Inc. Notes to Condensed Consolidated Financial Statements (Unaudited)

1. Description of Business, Basis of Presentation and Summary of Significant Accounting Policies

Kindred Biosciences, Inc. ("KindredBio", "we", "us" or "our") was incorporated on September 25, 2012 (inception) in the State of Delaware. On April 25, 2016, we filed a Certificate of Incorporation with the State of Delaware for a wholly owned subsidiary, KindredBio Equine, Inc. ("Subsidiary"). The Subsidiary has one class of capital stock which is designated common stock, \$0.0001 par value per share. The authorized number of shares of common stock for the Subsidiary is 1,000.

We are a commercial-stage biopharmaceutical company focused on saving and improving the lives of pets. Our activities since inception have consisted principally of raising capital, establishing facilities, recruiting management and technical staff and performing research and development and advancing our product candidates seeking regulatory approval. Our headquarters are located in Burlingame, California.

We are subject to risks common to companies in the biotechnology and pharmaceutical industries. There can be no assurance that our research and development will be successfully completed, that adequate patent or other intellectual property protection for our technology will be obtained, that any products developed will obtain necessary government regulatory approval or that any approved products will be commercially viable. We operate in an environment of substantial competition from other animal health companies. In addition, we are dependent upon the services of our employees and consultants, as well as third-party contract research organizations and manufacturers.

The accompanying unaudited interim condensed consolidated financial statements ("financial statements") have been prepared pursuant to the rules and regulations of the Securities and Exchange Commission (SEC). Accordingly, they do not include all of the information and footnotes required by accounting principles generally accepted in the United States of America ("U.S. GAAP") for complete financial statements. These financial statements should be read in conjunction with the audited consolidated financial statements and notes thereto for the year ended December 31, 2018 included in our annual report on Form 10-K as filed with the SEC on March 6, 2019. In the opinion of management, all adjustments, consisting of a normal and recurring nature, considered necessary for a fair presentation, have been included in these financial statements.

The accompanying financial statements include the accounts of the Company and its wholly owned Subsidiary. All inter-company accounts and transactions have been eliminated in consolidation.

Stock Offerings

In January 2018, we filed a shelf registration statement on Form S-3 to offer and sell, from time to time, equity and debt securities in one or more offerings up to a total dollar amount of \$150.0 million.

In May 2018, we entered into an At Market Issuance Sales Agreement, or the Sales Agreement, relating to the sale of up to \$50,000,000 of our common stock from time to time. We terminated the Sales Agreement in June 2018 after having sold 188,100 shares, representing gross proceeds of approximately \$1,903,000. Net proceeds, after deducting commission, fees and offering costs, were approximately \$1,758,000.

On June 22, 2018 we completed a public offering of 5,326,314 shares of common stock, which included the underwriters' option to purchase additional shares, at a public offering price of \$9.50 per share for total gross proceeds of approximately \$50,600,000. Net proceeds, after deducting underwriting discounts and commissions and offering expense, were approximately \$47,422,000.

In January 2019, we completed a public offering of 4,847,250 shares of common stock, which includes the exercise in full pf the underwriters' option to purchase 632,250 additional shares of our common stock, at a public offering price of \$9.50 per share for total gross proceeds of approximately \$46,049,000. Net proceeds, after deducting underwriting discounts and commissions and offering expense, were approximately \$43,125,000.

Liquidity

We have incurred losses and negative cash flows from operations and had an accumulated deficit of \$177,725,000 as of March 31, 2019. We expect to continue to incur losses and negative cash flows, which will increase significantly from historical levels as we expand our product development activities, seek regulatory approvals for our product candidates, establish a biologics manufacturing capability, and commercialize any approved products. To date, we have been funded primarily through sales of our former convertible preferred stock and the sale of our common stock. We might require additional capital until such time as we can generate operating revenues in excess operating expenses. We believe that our cash, cash equivalents and short-term investments totaling \$95,988,000 as of March 31, 2019, are sufficient to fund our planned operations for approximately the next 24 months.

If we require additional funding for operations, we may seek such funding through public or private equity or debt financings or other sources, such as corporate collaborations and licensing arrangements. We may not be able to obtain financing on acceptable terms, or at all, and we may not be able to enter into corporate collaborations or licensing arrangements. The terms of any financing may result in dilution or otherwise adversely affect the holdings or the rights of our stockholders.

Revenue Recognition

We adopted FASB Accounting Standards Codification Topic 606 ("ASC 606"), Revenue from Contracts with Customers in the first quarter of our fiscal year that began on January 1, 2018.

Our revenues consist of product revenues resulting from the sale of MiratazTM (mirtazapine transdermal ointment) for the management of weight loss in cats. We account for a contract with a customer when there is a legally enforceable contract between us and our customer, the rights of the parties are identified, the contract has commercial substance, and collectability of the contract consideration is probable. Our customers could either be distributors who subsequently resell our products to third parties such as veterinarians, clinics or animals hospitals or the third parties themselves.

In accordance with ASC 606, we applied the following steps to recognize revenue for the sale of Mirataz that reflects the consideration to which we expect to be entitled to receive in exchange for the promised goods:

1. Identify the contract with a customer

A contract with a customer exists when we enter into an enforceable contract with a customer. These contracts define each party's rights, payment terms and other contractual terms and conditions of the sale. We apply judgment in determining the customer's ability and intention to pay, which is based on published credit and financial information pertaining to the customer.

2. Identify the performance obligations in the contract

Our product in a given purchase order is delivered at the same time and we do not separate an individual order into separate performance obligations. We have concluded the sale of finished goods and related shipping and handling are accounted for as a single performance obligation as there are no other promises to deliver goods beyond what is specified in each accepted customer order.

3. Determine the transaction price

The transaction price is determined based on the consideration to which we will be entitled to receive in exchange for transferring goods to the customer, typically a fixed consideration in our contractual agreements.

4. Allocate the transaction price to the performance obligations

The transaction price is allocated entirely to the performance obligation to provide pharmaceutical products. The nature of the promises/obligations under our contracts is to transfer a distinct good. Accordingly, because a single performance obligation exists, no allocation of the transaction price is necessary.

5. Determine the satisfaction of performance obligation

Revenue is recognized when control of the finished goods is transferred to the customer, net of applicable reserves for variable consideration. Control of the finished goods is transferred at a point in time, upon delivery to the customer.

Reserves for Variable Consideration

Revenues from product sales are recorded at the net sales price, which includes estimates of variable consideration for which reserves are established. Components of variable consideration include product returns, allowances and discounts. These estimates take into consideration a range of possible outcomes for the expected value (probability-weighted estimate) or relevant factors such as current contractual and statutory requirements, specific known market events and trends, industry data, and forecasted customer buying and payment patterns. Overall, these reserves reflect our best estimates of the amount of consideration to which it is entitled based on the terms of the respective underlying contracts. The amount of variable consideration included in the transaction price may be constrained and is included in the net sales price only to the extent that it is probable that a significant reversal in the amount of the cumulative revenue recognized where the contract will not occur in a future period. 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 net product revenues and earnings in the period such variances become known.

Product Returns

Consistent with the industry practice, we generally offer customers a limited right of return of damaged or expired product that has been purchased directly from us. Our return policy generally allows customers to receive credit for expired products within 90 days after the product's expiration date. We estimate the amount of our product revenues that may be returned by our customers and record these estimates as a reduction of product revenues in the period the related product revenues are recognized, as well as within accrued liabilities, in the consolidated balance sheets. We currently estimate product return liabilities using probability-weighted available industry data and data provided by the our distributors such as the inventories remaining in the distribution channel. To-date, we have no returns and believe that returns of our product in future periods will be minimal. We do not record a return asset associated with the returned damaged or expired goods due to such asset is deemed to be fully impaired at the time of product return.

Sales Discounts and Allowances

We compensate our distributors for sales order management, data and distribution and other services through sales discounts and allowances. However, such services are not distinct from our sale of products to distributors and, therefore, these discounts and allowances are recorded as a reduction of product revenues in the consolidated statements of operations and comprehensive loss, as well as a reduction to accounts receivable in the consolidated balance sheets.

Sales Commissions

We generally expense sales commissions when incurred because the amortization period would have been one year or less. These costs are recorded within sales and marketing expenses.

Cost of Product Revenues

Cost of product revenues consists primarily of the cost of direct materials, direct labor and overhead costs associated with manufacturing, inbound shipping and other third-party logistics costs.

Inventories

We value inventory at the lower of cost or net realizable value. We determine the cost of inventory using the standard-cost method, which approximates actual cost based on a first-in, first-out method. We analyze our inventory levels quarterly and write down inventory subject to expire in excess of expected requirements, or that has a cost basis in excess of its expected net realizable value. These inventory related costs are recognized as cost of product revenues on the accompanying consolidated statements of operations and comprehensive loss. Currently our inventory consists of finished goods only.

Property, Plant and Equipment

Property and equipment are stated at cost less accumulated depreciation and amortization. We calculate depreciation using the straight-line method over the estimated useful lives of the assets, which range from two to five years for furniture, fixtures, lab and computer equipment and software, and fifteen to thirty-nine years for land improvements and real property. Land and assets held within construction in progress are not depreciated. Construction in progress is related to the construction or development of property and equipment that have not yet been placed in service for their intended use. Expenditures for repairs and maintenance of assets are charged to expense as incurred. We amortize leasehold improvements using the straight-line method over the estimated useful lives of the respective assets or the lease term, whichever is shorter. Upon retirement or sale, the cost and related accumulated depreciation and amortization of assets disposed of are removed from the accounts and any resulting gain or loss is included in other income/expense.

Use of Estimates

The preparation of financial statements and related disclosures in conformity with U.S. GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, the disclosure of contingent assets and liabilities at the date of the financial statements, and the reported amounts of revenues and expenses during the reporting periods. Estimates are based historical experiences or on forecasts, including information received from third parties and other assumptions that the Company believes are reasonable under the circumstances. Estimates are periodically reviewed in light of changes in circumstances, facts and experience. Actual results could differ from those estimates.

Comprehensive Loss

Our comprehensive loss includes the change in unrealized gains or losses on available-for-sale securities. The cumulative amount of gains or losses are reflected as a separate component of stockholders' equity in the condensed consolidated balance sheets as accumulated other comprehensive income (loss).

Recently Issued Accounting Pronouncements

In February 2016, Financial Accounting Standards Board ("FASB") issued Accounting Standards Update ("ASU") No. 2016-02, "Leases (Topic 842)", requiring organizations that lease assets—referred to as "lessees"—to recognize on the consolidated balance sheet the assets and liabilities for the rights and obligations created by those leases. Under the new guidance, a lessee will be required to recognize assets and liabilities for leases with lease terms of more than 12 months. The ASU on leases took effect for public companies for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2018. We adopted this new standard on January 1, 2019, using the alternative modified transition method, that means using a cumulative-effect adjustment, if any, to the opening balance of retained earnings to be recognized on the date of adoption with prior periods not restated. Upon adoption, on January 1, 2019, we recorded a \$1,941,000 increase in operating lease right-of-use assets, a \$69,000 decrease in other current assets, a \$115,000 decrease in other liabilities and a \$1,985,000 increase in operating lease obligations. There was no cumulative-effect adjustment needed on January 1, 2019. The new standard provides a number of optional practical expedients in transition. We elected the following "package of practical expedients" when assessing the transition impact as the lessee as of January 1, 2019: (1) not to reassess whether any expired or existing contracts, contain leases; (2) not to reassess the lease classification for any expired or existing leases; and (3) not to reassess initial direct costs for any existing leases. Leases with an initial term of 12 months or less are not recorded on the balance sheet as we recognize lease expense for these leases on a straight-line basis over the lease term. The major impact for KindredBio was the balance sheet recognition of right-of-use ("ROU") assets and lease liabilities for operating leases as a lessee. We determine if an agreement contains a lease at inception. For agreements where we are the lessee, operating lease are included in operating lease right-of-use assets, current portion of operating lease liabilities and long-term portion operating lease liabilities on the condensed consolidated balance sheet as of March 31, 2019. Operating lease ROU assets and operating lease liabilities are recognized based on the present value of the future minimum lease payments over the lease term at commencement date. ROU assets also include any initial direct costs incurred and any lease payments made at or before the lease commencement date, less lease incentive received. We use our own incremental borrowing rate based on the information available at the commencement date in determining the lease liabilities as our leases generally do not provide an implicit rate. Lease terms don't include options to extend or terminate when we are reasonably certain that the option will not be exercised. Lease expense is recognized on a straight-line basis over the lease term.

In July 2018, the FASB issued ASU No. 2018-10, "Codification Improvements to Topic 842, Leases", which affects narrow aspects of the guidance issued in ASU No. 2016-02. The amendments in this ASU related to transition do not include amendments from proposed ASU, Leases (Topic 842): Targeted Improvements, specific to a new and optional transition method

to adopt the new lease requirements in Update 2016-02. The effective date and transition requirements are the same as the effective date and transition requirements in Topic 842. The adoption of this standard did not have material impact on our financial statements.

In July 2018, the FASB issued ASU No. 2018-11, "Targeted Improvements to Topic 842, Leases". The Standard provide another transition method in addition to the existing transition method by allowing entities to initially apply the new lease standard at the adoption date and recognize a cumulative-effect adjustment to the opening balance of retained earnings in the period of adoption. The effective date and transition requirements are the same as the effective date and transition requirements in Topic 842. Our adoption of this standard did not require an adjustment to our opening balance of retained earnings and did not have material impact on our financial statements.

In August 2018, the FASB issued ASU No. 2018-13, "Fair Value Measurement (Topic 820)", changes to disclosure requirements for fair value measurement. The amendments of this update modify the disclosure requirements on fair value measurements about Topic 820. It applies to all reporting entities within the scope of the affected accounting guidance. It will take effect for public companies for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2019. We are currently evaluating the new guidance and have not determined the impact this standard may have on our financial statements.

We do not believe there are any other recently issued standards not yet effective that will have a material impact on our financial statements when the standards become effective.

2. Revenues and Cost of Product Revenues

Our revenues consist of product revenues resulting from the sale of Mirataz for the management of weight loss in cats. We account for a contract with a customer when there is a legally enforceable contract between us and our customer, the rights of the parties are identified, the contract has commercial substance, and collectability of the contract consideration is probable. Our revenues are measured based on the consideration specified in the contract with each customer, net of product returns, discounts and allowances.

The following table presents revenues and cost of product revenues for the quarter ended March 31, 2019 and 2018 (in thousands):

Throo	months	habna	March	31
1111166	шопина	enueu	Maich	31.

	,				
	2019	20	18		
Gross product revenues	\$ 531	\$	_		
Less allowance for product returns	(16)		_		
Net product revenues	515		_		
Cost of product revenues	(92)		_		
Gross profit	\$ 423	\$	_		

Concentrations of credit risk

Our revenue was generated entirely from sales within the United States. Approximately 87% of our gross product revenues sold were to two distributors.

Product returns

Our return policy generally allows customers to receive credit for expired products within 90 days after the product's expiration date. We currently estimate product return liabilities of 3% of gross revenue using probability-weighted available industry data and data provided by our distributors such as the inventories remaining in the distribution channel. Adjustments will be made in the future if actual results vary from our estimates.

Accounts receivable and allowance for doubtful accounts

Accounts receivable are stated at their carrying values, net of any allowances for doubtful accounts. Accounts receivable consist primarily of amounts due from distributors, for which collection is probable based on the customer's intent and ability to pay. Receivables are evaluated for collection probability on a regular basis and an allowance for doubtful accounts is recorded, if necessary. We have no allowance for doubtful accounts as of March 31, 2019 as our analysis did not uncover any collection risks.

3. Fair Value Measurements

Certain assets and liabilities are carried at fair value. Fair value is defined as the exchange price that would be received for an asset or paid to transfer a liability (an exit price) in the principal or most advantageous market for the asset or liability in an orderly transaction between market participants on the measurement date. Valuation techniques used to measure fair value must maximize the use of observable inputs and minimize the use of unobservable inputs. A fair value hierarchy based on three levels of inputs, of which the first two are considered observable and the last is considered unobservable, is used to measure fair value:

Level 1: Quoted prices in active markets for identical assets or liabilities.

Level 2: Observable inputs (other than Level 1 quoted prices) such as quoted prices in active markets for similar assets or liabilities, quoted prices in markets that are not active for identical or similar assets or liabilities, or other inputs that are observable or can be corroborated by observable market data.

Level 3: Unobservable inputs that are supported by little or no market activity and that are significant to determining the fair value of the assets or liabilities, including pricing models, discounted cash flow methodologies and similar techniques.

The carrying amount of financial instruments, including cash and cash equivalents, accounts payable and accrued liabilities approximate fair value due to the short maturities of these financial instruments. Financial assets, which consist of money market funds and available-for-sale securities, are measured at fair value on a recurring basis.

Financial assets, which consist of money market funds and available-for-sale securities, are measured at fair value on a recurring basis and are summarized as follows (in thousands):

	Fair Value Measurements as of March 31, 2019									
Description	Significant Other Quoted Prices in Observable Active Markets Inputs Total (Level 1) (Level 2)		Uno	bservable Inputs (Level 3)						
Cash equivalents:										
Money market funds	\$	920	\$	920	\$	_	\$	_		
US Treasury bills		800		800		_		_		
Commercial paper		65,622		_		65,622		_		
Short-term investments:										
U.S. treasury bills		502		502		_		_		
U.S. government agency notes		2,493		_		2,493		_		
Commercial paper		12,680		_		12,680		_		
Corporate notes		11,715		_		11,715		_		
	\$	94,732	\$	2,222	\$	92,510	\$	_		

		F	air V	/alue Measurem	ents	as of December 3	1,2018	
Description		Total		Quoted Prices in Active Markets (Level 1)		ignificant Other bservable Inputs (Level 2)		ervable Inputs (Level 3)
Cash equivalents:								
Money market funds	\$	1,276	\$	1,276	\$	_	\$	_
Commercial paper		45,332		_		45,332		_
U.S. treasury bills		500		500		_		_
U.S. treasury bonds and notes		7,949				7,949		_
Short-term investments:								
Commercial paper		5,353		_		5,353		_
Corporate notes		12,277		_		12,277		_
	\$	72,687	\$	1,776	\$	70,911	\$	_

During the three months ended March 31, 2019, there were no transfers of assets between Level 1, Level 2 or Level 3 of the fair value hierarchy.

At March 31, 2019 and December 31, 2018, we did not have any financial liabilities which were measured at fair value on a recurring basis.

4. Investments

We classify all highly-liquid investments with stated maturities of greater than three months from the date of purchase and remaining maturities of less than one year as short-term investments. Investments with maturities beyond one year may be classified as short-term based on their highly liquid nature and because such investments are viewed as being available to support current operations. We classify and account for investments as available-for-sale and reflect realized gains and losses using the specific identification method. Changes in market value, if any, excluding other-than-temporary impairments, are reflected in other comprehensive income (loss).

The fair value of available-for-sale investments by type of security at March 31, 2019 was as follows (in thousands):

	Amortized Cost		Gross Unrealized Gains		Gross Unrealized Losses		Fa	air Value
Short-term investments:								
Commercial paper	\$	12,682	\$	1	\$	(3)	\$	12,680
U.S. treasury bills		502		_		_		502
U.S. government agency notes		2,493		_		_		2,493
Corporate notes		11,713		3		(1)		11,715
Total available-for-sale investments	\$	27,390	\$	4	\$	(4)	\$	27,390
	12							

The fair value of available-for-sale investments by type of security at December 31, 2018 was as follows (in thousands):

	Amort	Amortized Cost		Unrealized Gains	d Gross Unrealized Losses		Fa	nir Value
Short-term investments:								
Commercial paper	\$	5,353	\$	_	\$	_	\$	5,353
Corporate notes		12,288			(11)		12,277
Total available-for-sale investments	\$	17,641	\$		\$ (11)	\$	17,630

5. Accrued Liabilities

Accrued liabilities consisted of the following (in thousands):

	March 31, 2019	December 31, 2018
Accrued consulting	\$ 755	\$ 627
Accrued research and development costs	2,039	2,509
Other expenses	4,277	5,012
Deferred rent	_	115
	7,071	8,263
Less current portion	(7,071)	(8,169)
Long-term liability (deferred rent)	\$ 	\$ 94

6. Common Stock and Stock-Based Awards

Common Stock

During the three months ended March 31, 2019, we sold 4,847,250 shares of common stock in a follow-on public offering (see Note 1). In addition, we issued 102,801 shares of common stock in connection with the exercise of stock options for gross proceeds of \$652,000, vested 141,250 restricted stock awards and restricted stock units, withheld 21,562 shares of restricted common stock and 27,538 shares related to restricted stock units to satisfy employee tax withholding obligations arising in conjunction with the vesting of restricted stock and restricted stock units (see below).

Stock-Based Awards

The table below shows the number of shares of common stock underlying options granted to employees, directors and consultants, the assumptions used in the Black-Scholes option pricing model used to value those options and the resulting weighted-average grant date fair value per share:

Stock Option Plan	Three months en	ded March 31,
	2019	2018
Shares underlying options granted	1,029,000	1,090,200
Weighted-average exercise price	\$9.93	\$8.77
Weighted average risk- free interest rate	2.54 %	2.50 %
Weighted average expected term (years)	5.9	5.9
Weighted average expected volatility	57%	60%
Expected dividend yield	_	_
Weighted-average grant date fair value per share	\$5.43	\$4.97

In June 2018, we adopted the 2018 Equity Incentive Plan (the "2018 Plan"), and reserved 3,000,000 shares of our common stock for issuance under the 2018 Plan. The 2018 Plan is the successor to our 2016 Equity Incentive Plan (the "2016 Plan"), which was retired on June 21, 2018 upon stockholders' approval of our 2018 Plan. The 2016 Plan was the successor to our 2012 Equity Incentive Plan (the "2012 Plan"), which was retired on May 23, 2016 upon stockholders' approval of our 2016 Plan. All awards made under the 2016 and 2012 Plans shall remain subject to the terms of these plans. Options granted under the 2018 Plan may be either incentive stock options or nonstatutory stock options. The 2018 Plan also provides for the grant of stock appreciation rights, restricted stock awards, restricted stock unit awards, performance stock awards, performance cash awards and other stock awards. The exercise price of a stock option may not be less than 100% of the closing price of our common stock on the date of the grant. If, at any time we grant an incentive stock option, and the optionee directly or by attribution owns stock possessing more than 10% of the total combined voting power of all classes of KindredBio stock, the option price shall be at least 110% of the fair value and shall not be exercisable more than five years after the date of grant. Options generally vest over a period of one or four years from the date of grant. Options granted under the 2018 Plan expire no later than 10 years from the date of grant. As of March 31, 2019, there were 1,427,493 option shares outstanding, and 1,271,732 shares available for future grants under the 2018 Plan.

Our Employee Stock Purchase Plan (the "Stock Purchase Plan" or "ESPP"), adopted in December 2014, permits eligible employees to purchase common stock at a discount through payroll deductions during defined six-month consecutive offering periods beginning December 1 with the exception of our first offering period which commenced on January 1, 2015 for a five month duration. The price at which the stock is purchased is equal to the lower of 85% of the fair market value of the common stock on the first day of the offering or 85% of the fair market value of our common stock on the purchase date. A total of 200,000 shares of common stock are authorized for issuance under the Stock Purchase Plan. At the Annual Meeting of Stockholders of Kindred Biosciences, Inc. held on June 22, 2018, our stockholders approved an amendment to increase the number of shares that may be issued under the ESPP from 200,000 shares to 500,000 shares. A participant may purchase a maximum of 2,000 shares of common stock during each offering period, not to exceed \$25,000 worth of common stock on the offering date during each calendar year.

We use the Black-Scholes option pricing model, in combination with the discounted employee price, in determining the value of the Stock Purchase Plan expense to be recognized during each offering period. The following assumptions were used in the Black-Scholes option pricing model to calculate employee stock-based compensation:

Stock Purchase Plan	Three months en	ded March 31,
	2019	2018
Weighted average risk-free interest rate	2.52%	1.45%
Weighted average expected term (years)	0.5	0.5
Weighted average expected volatility	48.2%	41.4%
Expected dividend yield	_	_
Weighted-average grant date fair value per share	\$3.66	\$1.91

We did not issue any common stock under the Stock Purchase Plan during the three months ended March 31, 2019. At March 31, 2019 and December 31, 2018, we had an outstanding liability of \$210,000 and \$47,000, respectively, which is included in accrued compensation on the condensed consolidated balance sheets, for employee contributions to the Stock Purchase Plan for shares pending issuance at the end of the next offering period.

We recorded stock-based compensation expense as follows (in thousands):

	Three months	ended March 31,
	2019	2018
Research and development	\$436	\$501
General and administrative	1,424	1,023
	\$1,860	\$1,524

We had an aggregate of approximately \$12,902,000 of unrecognized stock-based compensation expense for options outstanding and the Stock Purchase Plan as of March 31, 2019 which is expected to be recognized over a weighted-average period of 2.9 years.

Restricted Stock Award and Restricted Stock Units

On January 23, 2017, we granted 250,000 shares of restricted stock awards to four employees. Shares will vest 25% on each one year anniversary of the grant date provided that the employee is in the employment of the Company on such vesting date. On January 22, 2018, we granted 315,000 shares of restricted stock units to four employees. Shares will vest 25% on each one year anniversary of the grant date provided that the employee is in the employees. Shares will vest 25% on each one year anniversary of restricted stock units to most of our current employees. Shares will vest 25% on each one year anniversary of the grant date provided that the employee is in the employment of the Company on such vesting date. The total stock-based compensation expense related to all awards and units is \$7,512,000. As of March 31, 2019, we have an aggregate of approximately \$5,712,000 unrecognized stock-based compensation expense for restricted stock awards and units outstanding which is expected to be recognized over a weighted-average period of 3.3 years.

Restricted stock award and restricted stock units activity for the period ended March 31, 2019 was as follows:

Restricted Stock Award / Restricted Stock Units	Shares	Weighted Average Grant Date Fair Value
Unvested balance at December 31, 2018	502,500	\$7.87
Granted	300,775	10.49
Vested	(141,250)	7.71
Forfeited	_	_
Unvested balance at March 31, 2019	662,025	\$9.10

7. Stockholders' Equity

Stockholders' Equity

The following tables present the changes in stockholders' equity (in thousands):

Three Months	Ended	March	31, 2019
--------------	-------	-------	----------

							,				
	Common				ditional		nulated Other	Accumi	lated	Stockho	olders'
	Shares	Amount		Pai	d in Capital	Comp	rehensive Income	Deficit		Equity	
Balance at December 31, 2018	33,948	\$	3	\$	252,885	\$	(11)	\$	(161,670)	\$	91,207
Comprehensive loss											
Net loss	_		_		_		_		(16,055)		(16,055)
Change in unrealized gains on available for sale securities	_		_		_		(2)		_		(2)
Total comprehensive loss											(16,057)
Stock-based compensation	_		_		1,860		_		_		1,860
RSU issuance of shares when vested, net of shares withheld	51		_		(279)		_		_		(279)
Shares withheld related to net share settlement of restricted stock awards	(21)		_		(214)		_		_		(214)
Exercise of common stock options	103		_		652		_		_		652
Public offering of common stock, net of \$2,924 of offering costs	4,847		1		43,124		_		_		43,125
Balance at March 31, 2019	38,928	\$	4	\$	298,028	\$	(13)	\$	(177,725)	\$	120,294
											•

Three Months Ended March 31, 2018

	Three Months Ended March 31, 2010										
	Common	stock		Additional Accumulated Other		Accumulated					
	Shares	Amount		Paid	Paid in Capital Comprehensive Income		Deficit		Stockholders' Equity		
Balance at December 31, 2017	28,183	\$	3	\$	196,688	\$	(31)	\$	(111,980)	\$	84,680
Comprehensive loss											
Net loss	_		_		_		_		(9,971)		(9,971)
Change in unrealized gains on available for sale securities	_		_		_		(11)		_		(11)
Total comprehensive loss											(9,982)
Stock-based compensation	_		_		1,524		_		_		1,524
Shares withheld related to net share settlement of restricted stock awards	(27)		_		(247)		_		_		(247)
Exercise of common stock options	41		_		182		_		_		182
Balance at March 31, 2018	28,197	\$	3	\$	198,147	\$	(42)	\$	(121,951)	\$	76,157

8. Commitments and Contingencies

Leases

We have non-cancelable operating leases for laboratory space in Burlingame, California with several amendments to expand the facility. Commencing on June 1, 2017, the non-cancelable operating lease for the entire existing laboratory space of a total 10,755 square feet was extended for another 5 years through May 2022. In February 2017, we further amended the operating lease for laboratory space with an additional 721 square feet through May 2022. In April 2017, we renewed our headquarters office lease for 6,900 square feet of office space in Burlingame, California through November 30, 2020 and in June 2017, we amended the lease with an additional 1,190 square feet of office space through November 30, 2020. In addition, we have a non-cancelable operating lease for 3,126 square feet of office space in San Diego, California through September 2019 and five equipment leases expiring through 2023. In October 2018, we signed a short-term lease in Burlingame ("October 2018 lease"), consisting of 5,613 square feet of space. The October 2018 lease will continue on a month-to-month basis until December 31, 2019. Operating lease expense was \$229,000 for the three months ended March 31, 2019, which includes \$26,000 of short-term lease expense. The following tables below do not include the October 2018 lease. We also have various equipment operating lease agreements.

Supplemental cash flow information, as of March 31, 2019, related to operating leases as follows (in thousands):

Cash paid within operating cash flows	\$ 208
Amortization of operating lease right-of-use assets	\$ 178

Supplemental balance sheet information, as of March 31, 2019, related to operating leases was as follows (in thousands, except lease term and discount rate):

Reported as:

•	
Operating lease right-of-use assets	\$ 1,763
Current portion of operating lease liabilities	\$ 708
Long-term operating lease liabilities	1,096
Total lease liabilities	\$ 1,804

Weighted average remaining lease term (years)

Weighted average discount rate

2.7 years

5.50%

As of March 31, 2019, we are obligated to make minimum lease payments under non-cancelable operating leases, as follows (in thousands):

Year ending December 31,	Lease Payments
2019 (remaining of year)	\$ 539
2020	732
2021	469
2022	202
2023 and after	4
Total lease payments	 1,946
Less: imputed interest	(142)
Total lease liabilities	\$ 1,804

As of *December 31, 2018*, we are obligated to make minimum lease payments under all of our operating leases as follows (in thousands):

Year ending December 31,	Lease	Payments
2019	\$	835
2020		726
2021		459
2022		194
Thereafter		_
Total	\$	2,214

Purchase Commitments

In March 2018, we entered into a standard form of agreement with CRB Builders, LLC ("CRB") in connection with the renovation of the Plant. Pursuant to the agreement, CRB will provide pre-construction and construction services in connection with constructing and renovating the Plant to provide approximately 16,500 square feet of new production space, and supporting Fill and Finish and Bio Production processes (the "Project"). The date for substantial completion of CRB's work on the Project is anticipated to be in the mid-2019, which is subject to adjustment in accordance with the terms of the agreement as the renovation progresses, or as agreed and requested by KindredBio. The agreement is subject to customary undertakings, covenants, obligations, rights and conditions.

In June 2018, we entered into a Strategic Supply Agreement (the "Agreement"), with Pall Corporation ("Pall") for purchase of equipment and consumables to be used in support of our manufacturing requirements, including, but not limited to the Plant. Pursuant to the agreement, we will purchase certain pharmaceutical manufacturing equipment and related services in the aggregate amount of \$3.8 million with a seven year consumable purchase obligation in the aggregate amount of approximately \$16.5 million. The agreement is subject to customary undertakings, covenants, obligations, rights and conditions. We have incurred \$3,286,000 in equipment purchase costs and \$707,000 in other purchase costs as of March 31, 2019.

9. Net Loss Per Share

Basic and diluted net loss per share was calculated as follows (in thousands, except per share amounts):

	Three months ended March 31,			
		2019		2018
Basic and diluted net loss per share:				
Numerator:				
Net loss	\$	(16,055)	\$	(9,971)
Denominator:	-			
Weighted-average number of common shares outstanding, basic and diluted		37,786		27,986
Net loss per share, basic and diluted	\$	(0.42)	\$	(0.36)

There was no difference between the Company's net loss and the net loss attributable to common stockholders for all periods presented.

Stock options to purchase 6,692,139 shares of common stock, 125,000 shares unvested restricted stock awards and 236,250 restricted stock units as of March 31, 2019, were excluded from the computation of diluted net loss per share attributable to common stockholders for the three months ended March 31, 2019, because their effect was anti-dilutive.

Stock options to purchase 5,553,560 shares of common stock and 187,500 shares unvested restricted stock awards and 315,000 restricted stock units were excluded from the computation of diluted net loss per share attributable to common stockholders for the three months ended March 31, 2018, because their effect was anti-dilutive.

10. Subsequent Events

In April 2019, we signed a short-term sublease agreement in Burlingame with Color Genomics, Inc., consisting of 1,979 square feet of space which is part of a larger office project owned by the landlord. The lease will continue through April 30, 2020.

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

In this section, "KindredBio," "we," "our," "ours," "us" and the "Company" refer to Kindred Biosciences, Inc. and our wholly owned subsidiary KindredBio Equine, Inc. You should read the following discussion and analysis of our consolidated financial condition and results of operations together with our consolidated financial statements and the related notes and other financial information included elsewhere in this Quarterly Report on Form 10-Q. Some of the information contained in this discussion and analysis or set forth elsewhere in this Quarterly Report on Form 10-Q consists of forward-looking statements such as statements regarding our expectations about the trials, regulatory approval, manufacturing, distribution and commercialization of our current and future product candidates and statements regarding our anticipated revenues, expenses, margins, profits and use of cash. In this Quarterly Report on Form 10-Q, the words "anticipates," "espects," "intends," "future," "could," "estimates," "plans," "would," "should," "potential," "continues" and similar words or expressions (as well as other words or expressions referencing future events, conditions or circumstances) often identify forward-looking statements.

These forward-looking statements are based on our current expectations. These statements are not promises or guarantees, but involve known and unknown risks, uncertainties and other important factors that may cause our actual results to be materially different from any future results expressed or implied by the forward-looking statements. These risks and uncertainties include, but are not limited to, the following: our limited operating history and expectations of losses for the foreseeable future; the absence of significant revenue from Mirataz® (mirtazapine transdermal ointment) and our product candidates for the foreseeable future; the likelihood that our revenue will vary from quarter to quarter; our potential inability to obtain any necessary additional financing; our substantial dependence on the success of Mirataz and our lead product candidates, which may not be successfully commercialized even if they are approved for marketing; the effect of competition; our potential inability to obtain regulatory approval for our existing or future product candidates; our dependence on third parties to conduct some of our development activities; our dependence upon third-party manufacturers for supplies of Mirataz and our product candidates; uncertainties regarding the outcomes of trials pertaining to our product candidates; our potential failure to attract and retain senior management and key scientific personnel; uncertainty about our ability to develop a satisfactory sales organization; our significant costs of operating as a public company; our potential inability to obtain patent protection and other intellectual property protection for Mirataz and our product candidates; potential claims by third parties alleging our infringement of their patents and other intellectual property rights; our potential failure to comply with regulatory requirements, which are subject to change on an ongoing basis; the potential volatility of our stock price; and the significant control over our business by our principal stockhold

For a further description of these risks and uncertainties and other risks and uncertainties that we face, please see the "Risk Factors" sections that are contained in our filings with the U.S. Securities and Exchange Commission (the SEC), including the "Risk Factors" section of our Annual Report on Form 10-K for the year ended December 31, 2018, which was filed with the SEC on March 6, 2019, and any subsequent updates that may be contained in the "Risk Factors" sections of this Quarterly Report on Form 10-Q and our other Quarterly Reports on Form 10-Q filed with the SEC. As a result of the risks and uncertainties described above and in our filings with the SEC, actual results may differ materially from those indicated by the forward-looking statements made in this Quarterly Report on Form 10-Q speak only as of the date of this report and we undertake no obligation to update or revise these statements, except as may be required by law.

Overview

We are a commercial-stage biopharmaceutical company focused on saving and improving the lives of pets. Our mission is to bring to our pets the same kinds of safe and effective medicines that our human family members enjoy. Our core strategy is to identify compounds and targets that have already demonstrated safety and effectiveness in humans and to develop therapeutics based on these validated compounds and targets for pets, primarily dogs, cats and horses. We believe this approach will lead to shorter development times and higher approval rates than pursuing new, non-validated compounds and targets. Our current portfolio includes over 20 product candidates in development consisting of both small molecule pharmaceuticals and biologics.

Our first product, Mirataz® (miratazapine transdermal ointment) became commercially available to veterinarians in the United States on July 9, 2018. We have submitted all major technical sections of the New Animal Drug Application, or NADA, to the Food and Drug Administration, or FDA, for our second product candidate, dipyrone injection for the control of pyrexia (fever) in horses. In addition, we have multiple other product candidates, including several biologics, in various stages of development. We believe there are significant unmet medical needs for pets, and that the pet therapeutics segment of the animal health industry is likely to grow substantially as new therapeutics are identified, developed and marketed specifically for pets.

Mirataz is the first and only transdermal medication specifically developed and FDA-approved for the management of weight loss in cats. Weight loss is a serious and potentially fatal condition that represents the leading cause of visits to the veterinarian for cats. Mirataz, which is formulated with our proprietary AccusorbTM technology, is applied topically to the cat's inner ear (pinna) once a day, providing a more attractive application route compared to oral administration. The product is classified as a weight gain drug and can be used in cats with various underlying diseases associated with unintended weight loss.

Business Updates

We reported \$0.5 million in net revenues in the first quarter of 2019 related to Mirataz sales. Mirataz is commercially available to veterinarians in the United States through our network of national and regional distributors, home-delivery distributors, as well as through our direct sales organization. While net product revenues were lower versus the fourth quarter, sales of Mirataz from distributors to veterinary clinics increased quarter-over-quarter. Market penetration reached approximately 40%, positioning Mirataz ahead of most key feline therapeutics at an equivalent stage of launch, with approximately 61% of all purchasing veterinary clinics placing re-orders. We have seen a positive relationship between the number of veterinarian interactions and Mirataz sales and accordingly, expect a higher volume of promotional and educational events in the second quarter, alongside the commencement of a direct-to-consumer campaign, to further drive uptake.

The European Marketing Agency, or EMA, accepted our European marketing authorization application for the review of Mirataz in December 2017, and presented us with a List of Questions, or LoQ, in April 2018. We responded to the EMA's questions and in April 2019, we received a request for further information including a request to discuss the submission at an oral hearing, which has been tentatively scheduled for September 2019. The outcome of the oral hearing will determine whether additional studies are required to obtain European approval of Mirataz. KindredBio will update the market on the path forward for Mirataz EU pending communication from the EMA post the hearing. Regulatory approval is subject to the typical risks inherent in such a process.

The FDA has approved the safety and effectiveness technical sections for dipyrone injection for the control of pyrexia (fever) in horses, our second product candidate. We have filed a New Animal Drug Application for dipyrone injection with the FDA. The FDA inspection of the contract manufacturer of the active pharmaceutical ingredient dipyrone took place in March 2019. Pending a positive outcome from the manufacturer's response to the findings, FDA approval of dipyrone injection is expected in mid-2019. Regulatory approval is subject to the typical risks inherent in such a process. Preparations for the commercial launch remain on track.

The pivotal field effectiveness study for dipyrone oral gel has been completed with positive results. The target animal safety study is also complete, and dipyrone oral gel was found to be well-tolerated. We have agreed on a path forward with the FDA and bridging studies will likely commence in 2020. The oral gel form of dipyrone is expected to

be an additional valuable tool for equine veterinarians to provide horse owners with an easy-to-administer fever reducing agent for the horse.

On October 30, 2018, we reported positive topline results from our pilot efficacy study of KIND-016, a fully caninized, high-affinity monoclonal antibody targeting interleukin-31 (IL-31), for the treatment of atopic dermatitis in dogs. We are currently conducting a pilot field effectiveness study for our IL-31 antibody. Results from the study are expected in the third quarter, with a pivotal study expected to commence by year-end. In addition, the U.S. Patent and Trademark Office has issued a patent (Patent No. 10,093,731) for KindredBio's anti-IL31 antibody.

We also expect pilot effectiveness results for KIND-025, our canine anti-IL-4/IL-13 SINK molecule, in the second half of 2019, and are advancing other programs for atopic dermatitis.

Atopic dermatitis is an immune-mediated inflammatory skin condition in dogs. It is the leading reason owners take their dog to the veterinarian, and the current market size is over \$600 million annually and growing rapidly. KindredBio is pursuing a multi-pronged approach toward atopic dermatitis, with a portfolio of promising biologics.

GMP manufacturing has been completed at our Burlingame facility for KindredBio's feline recombinant erythropoietin that is being developed for the management of non-regenerative anemia in cats. GMP fill finish will be undertaken at our biologics manufacturing facility in Elwood, Kansas, which is expected to be completed by mid-2019. Thereafter, a pivotal effectiveness study (KIND-510a) will commence before the end of 2019. We announced positive topline results from a pilot field effectiveness study of our feline recombinant erythropoietin in January 2019.

Anemia is a common condition in older cats which is often associated with chronic kidney disease, resulting in decreased levels of endogenous erythropoietin. Chronic kidney disease can affect approximately half of older cats, making it a leading cause of feline mortality. Our feline recombinant protein that has been specially engineered by KindredBio with a prolonged half-life compared to endogenous erythropoietin, a protein that regulates and stimulates production of red blood cells. The PK data suggest that the molecule may have a sufficiently long half-life to allow for once-monthly dosing. Human erythropoietins, which are multi-billion dollar products in the human market, have been shown to be immunogenic in many cats.

The pilot field effectiveness study of KIND-509, our anti-TNF antibody for canine inflammatory bowel disease (IBD), has been initiated and is underway. Study results are expected by the end of 2019. IBD can affect dogs at any age, but is more common in middle-aged and older dogs.

The pilot field effectiveness study of KIND-014 for the treatment of gastric ulcers in horses has been completed with positive results. We have selected a formulation for development and both the pivotal field and pivotal safety studies will begin in 2019.

Equine gastric ulcer syndrome (EGUS) is a common condition in horses. Prevalence estimates have been reported to range from 60 to 90 percent in adult horses, depending on age, performance, and evaluated populations. A variety of clinical signs are associated with EGUS, including poor appetite, poor condition, colic, and behavioral issues.

The pilot field effectiveness study of KIND-011, our anti-TNF monoclonal antibody targeting sick or septic foals, has been completed, with positive results. KindredBio will initiate the next field study in 2020. Sepsis in foals can cause up to 50% mortality and is an important unmet medical need. There is currently no FDA-approved therapy.

We plan to commercialize our products in the United States through a direct sales force complemented by selected distributor relationships, and in the EU through distributors and other third parties. Because we seek to identify product candidates that are not protected by third-party patents, we typically do not need to obtain licenses or make any upfront, milestone or royalty payments in connection with our product candidates.

We have constructed a Good Manufacturing Practice, or GMP, biologics manufacturing plant in Burlingame, CA which is fully commissioned. We have proceeded to GMP manufacturing of our feline erythropoietin product candidate. In addition, construction to support initial production lines on our biologics manufacturing facility in Elwood, Kansas is expected to be completed by mid-2019. The Plant includes approximately 180,000 square feet with clean rooms, utility, equipment and related quality documentation suitable for small molecule and biologics manufacturing.

We are a commercial-stage company with one product just recently approved for marketing and sale. We have incurred significant net losses since our inception. We incurred cumulative net losses of \$177,725,000 through March 31, 2019. These losses have resulted principally from costs incurred in connection with investigating and developing our product candidates, research and development activities and general and administrative costs associated with our operations.

Historically, our funding has been a combination of private and public offerings, including our initial public offering in December 2013 that provided us with net proceeds of \$54.9 million and a follow-on public offering in April 2014 that provided us with net proceeds of \$58.1 million. In 2017, we completed sale of 4,501,985 shares of common stock under an At Market Issuance Sales Agreement, or ATM, and underwritten public offering of 3,314,000 shares of common stock. Total net proceeds in 2017, after deducting underwriting commissions and offering costs, were approximately \$52.2 million. In 2018, we sold 188,100 shares of common stock under an ATM and completed an underwritten public offering of 5,326,314 shares of common stock that provided us with approximately \$49.2 million in net proceeds. On January 23, 2019, we completed a public offering of 4,847,250 shares of our common stock, which included the exercise in full by the underwriters of their option to purchase 632,250 additional shares of our common stock, at a public offering price of \$9.50 per share for total gross proceeds of approximately \$46 million. Net proceeds, after deducting underwriting discounts and commissions and offering expenses were approximately \$43.1 million. As of March 31, 2019, we had cash, cash equivalents and investments of \$95,988,000.

For the foreseeable future, we expect to continue to incur losses, which will increase significantly from historical levels as we expand our product development activities, seek regulatory approvals for our product candidates and begin to commercialize them if they are approved by the Center for Veterinary Medicine branch, or CVM, of the FDA, the U.S. Department of Agriculture, or USDA, or the European Medicines Agency, or EMA. If we are required to further fund our operations, we expect to do so through public or private equity offerings, debt financings, corporate collaborations and licensing arrangements. We cannot assure you that such funds will be available on terms favorable to us, if at all. Arrangements with collaborators or others may require us to relinquish rights to certain of our technologies or product candidates. In addition, we may never successfully complete development of, obtain adequate patent protection for, obtain necessary regulatory approval, or achieve commercial viability for any other product candidates besides Mirataz. If we are not able to raise additional capital on terms acceptable to us, or at all, as and when needed, we may be required to curtail our operations, and we may be unable to continue as a going concern.

Critical Accounting Policies and Significant Judgments and Estimates

Our management's discussion and analysis of financial condition and results of operations is based on our unaudited condensed consolidated financial statements, which have been prepared in accordance with accounting principles generally accepted in the United States, or U.S. GAAP. The preparation of our unaudited condensed consolidated financial statements and related disclosures requires us to make estimates and assumptions that affect the reported amounts of assets and liabilities, and revenue, costs and expenses and related disclosures during the reporting periods. On an ongoing basis, we evaluate our estimates and judgments, including those described below. We base our estimates on historical experience and on various other factors that we believe are reasonable under the circumstances, the results of which form the basis for making judgments about the carrying value of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates under different assumptions or conditions.

There have been no significant changes to our critical accounting policies since the beginning of our fiscal year. Our critical accounting policies are described in the "Management's Discussion and Analysis of Financial Condition and Results of Operations" section of our Annual Report on Form 10-K for the year ended December 31, 2018, which was filed with the SEC on March 6, 2019.

Results of Operations

The following table summarizes the results of our operations for the periods indicated (in thousands):

		Three months ended March 31,				
	2019			2018		
Net product revenues	\$	515	\$	_		
Operating costs and expenses:						
Cost of product revenues		92		_		
Research and development		7,152		5,346		
Selling, general and administrative		9,901		4,902		
Total operating costs and expenses		17,145		10,248		
Loss from operations		(16,630)		(10,248)		
Interest and other income, net		575		277		
Net loss	\$	(16,055)	\$	(9,971)		

Revenues

We received FDA approval of Mirataz in May 2018 and started shipping commercially within the United States in July 2018. Mirataz is commercially available to veterinarians in the United States through our network of national and regional distributors as well as through our direct sales organization. For the quarter ended March 31, 2019, we have \$0.5 million in revenues.

Our product sales to two large distributors, namely Covetrus and Patterson, each accounted for more than 10% of total revenues for the quarter ended March 31, 2019. On a combined basis, these distributors accounted for approximately 87% of our product sales in the United States.

We currently estimate a 3% product return liability using probability-weighted available industry data and data provided by the our distributors such as the inventories remaining in the distribution channel (Notes 1 and 2). We did not record an allowance for doubtful accounts as our analysis did not uncover any collection risks.

(In thousands)		Three months ended March 31,			
	2019			2018	
Gross product revenues	\$	531	\$	_	
Less allowance for product returns		(16)		_	
Net product revenues		515		_	
Cost of product revenues		(92)		_	
Gross profit	\$	423	\$		

Cost of product revenues

Cost of product revenues consists primarily of the cost of direct materials, direct labor and overhead costs associated with manufacturing, inbound shipping and other third-party logistics costs.

Research and Development Expense

All costs of research and development are expensed in the period incurred. Research and development costs consist primarily of salaries and related expenses for personnel, stock-based compensation expense, fees paid to consultants, outside service providers, professional services, travel costs and materials used in clinical trials and research and development. We are currently pursuing multiple product candidates for over a dozen indications. We typically use our employee and infrastructure resources across multiple development programs.

Research and development expense was as follows for the periods indicated (in thousands, except for percentages):

		Three months ended March 31,			%
	·	2019		2018	Change
Payroll and related	\$	3,279	\$	2,184	50%
Consulting		778		351	122%
Field trial costs, including materials		668		662	1%
Biologics development and supplies		864		937	(8)%
Stock-based compensation		436		501	(13)%
Other		1,127		711	59%
	\$	7,152	\$	5,346	34%

During the three months ended March 31, 2019, research and development expense related primarily to advancing the development of dipyrone oral gel, canine atopic dermatitis, KIND-014, KIND-510a and other early stage programs. We also increased our spending in biologics as we continue to advance additional potential candidates in our biologics program. In addition, we increased the headcount of our in-house team to focus on the GMP manufacturing process for our potential biologic candidates.

Research and development expenses for the three months ended March 31, 2019, increased by 34% to\$7,152,000 compared with \$5,346,000 for the same period in 2018. The increase was primarily due to higher payroll and related costs due to headcount additions and consulting costs related to quality assurance. Outsourced research and development expenses related to dipyrone oral gel, canine atopic dermatitis, KIND-014, epoCat and other product development programs for three months ended March 31, 2019 were \$138,000, \$101,000, \$22,000, \$7,000 and \$515,000, respectively. Outsourced research and development expense consists primarily of costs related to CMC, clinical trial costs and consulting. Higher depreciation, testing, rent and other facility costs also contributed to the increase in expenses.

We expect research and development expense to decrease slightly for the rest of the year as we re-prioritize our development programs to focus mainly on the core biologics and small molecule compounds. Due to the inherently unpredictable nature of our development, we cannot reasonably estimate or predict the nature, specific timing or estimated costs of the efforts that will be necessary to complete the development of our product candidates.

Selling, General and Administrative Expense

Selling, general and administrative expense was as follows for the periods indicated (in thousands, except for percentages):

	Three months ended March 31,			%	
		2019		2018	Change
Payroll and related	\$	4,140	\$	1,612	157%
Consulting, legal and professional services		816		532	53%
Stock-based compensation		1,424		1,023	39%
Corporate and marketing expenses		1,501		879	71%
Other		2,020		856	136%
	\$	9,901	\$	4,902	102%

Selling, general and administrative expenses for the three months ended March 31, 2019 increased by 102% to \$9,901,000, when compared to the same periods in 2018. The overall increase is primarily the result of KindredBio's transition from a development stage to a commercial stage company. Mirataz was commercially available to veterinarians in the United States in July 2018. Headcount increase was due to the expansion of our commercial organization and administrative personnel to support the company's growth. Sales and marketing expenses account for a big component of the increase due to the launch of Mirataz. Consulting, legal and professional fees as well as facilities costs increased as we became a commercial stage organization.

We expect selling, general and administrative expense to remain relatively consistent throughout 2019 as we have substantially completed the build out of our sales organization and corporate infrastructure in support of the commercialization of Mirataz.

Interest and Other Income, Net

The increase in interest income for the three months ended March 31, 2019 compared to 2018 is due to higher cash equivalent and investment balances as a result of the \$43 million of net proceeds from sale of common stock under the follow-on public offering as well as better yields from higher interest rates.

Income Taxes

We have historically incurred operating losses and maintain a full valuation allowance against our net deferred tax assets. Our management has evaluated the factors bearing upon the realizability of our deferred tax assets, which are comprised principally of net operating loss carryforwards and concluded that, due to the uncertainty of realizing any tax benefits as of March 31, 2019, a valuation allowance was necessary to fully offset our deferred tax assets.

Liquidity and Capital Resources

We have incurred losses and negative cash flows from operations since our inception in September 2012 through March 31, 2019. As of March 31, 2019, we had an accumulated deficit of \$177,725,000. Since inception and through March 31, 2019, we raised approximately \$269.5 million in net proceeds in connection with our initial public offering and through the sale of preferred stock (subsequently converted to common stock at the time of our initial public offering) and subsequent follow-on public offerings and ATM sales of common stock. As of March 31, 2019, we had cash, cash equivalents and investments of \$95,988,000. We believe that our cash, cash equivalents and investments balances as of March 31, 2019, are sufficient to fund our planned operations for approximately the next 24 months.

Cash Flows

The following table summarizes our cash flows for the periods set forth below:

		Three months ended March 31,		
		2019	2018	
	_	(In thousands)		
Net cash used in operating activities	\$	(18,654) \$	(11,222)	
Net cash (used in) provided by investing activities	\$	(12,334) \$	20,987	
Net cash provided by (used in) financing activities	\$	43,284 \$	(82)	

Net cash used in operating activities

During the three months ended March 31, 2019, net cash used in operating activities was \$18,654,000. The net loss of \$16,055,000 for the three months ended March 31, 2019 included non-cash charges of \$1,860,000 for stock-based compensation expense, \$500,000 for depreciation and amortization, partially offset by \$81,000 for the amortization of discount on marketable securities. Net cash used in operating activities was further impacted by net changes in operating assets and liabilities of \$4,879,000.

During the three months ended March 31, 2018, net cash used in operating activities was \$11,222,000. Net cash used in operating activities resulted primarily from our net loss of \$9,971,000, partially offset by non-cash stock-based compensation of \$1,524,000, depreciation and amortization of \$144,000, partially offset by \$29,000 for the amortization of premium on marketable securities. Net cash used was further impacted by net changes in operating assets and liabilities of \$2,890,000.

Net cash provided by investing activities

During the three months ended March 31, 2019, net cash used in investing activities was \$12,334,000, which resulted from proceeds from maturities of marketable securities of \$10,600,000, offset by \$20,281,000 related to purchases of marketable securities and \$2,656,000 related to purchases of equipment. In addition, we also received proceeds of \$3,000 from sale of equipment.

During the three months ended March 31, 2018, net cash provided by investing activities was \$20,987,000, due to proceeds from maturities of marketable securities of \$25,875,000 and sales of investments of \$800,000, offset by the purchases of marketable securities of \$5,279,000 and purchases of property and equipment of \$409,000.

Net cash provided by financing activities

During the three months ended March 31, 2019, net cash provided by financing activities of \$43,284,000 was related to net proceeds of \$43,125,000 from the sale of common stock from a public offering, proceeds of \$652,000 from exercises of stock options as well as the Employee Stock Purchase Program, offset by payment of \$493,000 related to restricted stock awards and restricted stock units tax liability on net settlement.

During the three months ended March 31, 2018, net cash reduced by financing activities of \$82,000 was related to \$165,000 proceeds from the purchases of common stock through exercise of stock options as well as the Employee Stock Purchase Program, offset by payment of \$247,000 related to restricted stock awards tax liability on net settlement.

Future Funding Requirements

We anticipate that we will continue to incur losses for the next several years due to expenses relating to:

- pivotal trials of our product candidates;
- toxicology (target animal safety) studies for our product candidates;
- small molecule manufacturing; and

establishment of biologics manufacturing capability in Kansas.

We believe our existing cash, cash equivalents and investments will be sufficient to fund our operating plan for approximately the next 24 months. However, our operating plan may change as a result of many factors currently unknown to us, and we may need to seek additional funds sooner than planned, through public or private equity or debt financings or other sources, such as strategic collaborations. Such financing may result in dilution to stockholders, imposition of debt covenants and repayment obligations or other restrictions that may affect our business. In addition, we may seek additional capital due to favorable market conditions or strategic considerations even if we believe we have sufficient funds for our current or future operating plans.

Our future capital requirements depend on many factors, including, but not limited to:

- the scope, progress, results and costs of researching and developing our current or future product candidates;
- the timing of, and the costs involved in, obtaining regulatory approvals for any of our current or future product candidates;
- the number and characteristics of the product candidates we pursue;
- the cost of manufacturing our current and future product candidates and any products we successfully commercialize, including the cost of building internal biologics manufacturing capacity;
- the cost of commercialization activities if any of our current or future product candidates are approved for sale, including marketing, sales and distribution costs;
- the expenses needed to attract and retain skilled personnel;
- the costs associated with being a public company;
- our ability to establish and maintain strategic collaborations, licensing or other arrangements and the financial terms of such agreements; and
- the costs involved in preparing, filing, prosecuting, maintaining, defending and enforcing possible patent claims, including litigation costs and the outcome of any such litigation.

Since inception, we have not engaged in the use of any off-balance sheet arrangements, such as structured finance entities, special purpose entities or variable interest entities.

Contractual Obligations

We have non-cancelable operating leases for laboratory space in Burlingame, California with several amendments to expand the facility. Commencing on June 1, 2017, the non-cancelable operating lease for the entire existing laboratory space of a total 10,755 square feet was extended for another 5 years through May 2022. In February 2017, we further amended the operating lease for laboratory space with an additional 721 square feet through May 2022. In April 2017, we renewed our headquarters office lease for 6,900 square feet of office space in Burlingame, California through November 30, 2020 and in June 2017, we amended the lease with an additional 1,190 square feet of office space through November 30, 2020. In addition, we have a non-cancelable operating lease for 3,126 square feet of office space in San Diego, California through September 2019 and five equipment leases expiring through 2023. Under the operating leases we are obligated to make minimum lease payments as of March 31, 2019 totaling \$1,946,000 through August 2023, the timing of which is described in more detail in the notes to the condensed consolidated financial statements. In October 2018, we signed a short-term lease in Burlingame ("October 2018 lease"), consisting of 5,613 square feet of space. The October 2018 lease will continue on a month-to-month basis until December 31, 2019.

Off-Balance Sheet Arrangements

As of March 31, 2019, we did not have any material off-balance sheet arrangements as defined in Item 303(a)(4)(ii) of SEC Regulation S-K.

Recently Issued Accounting Pronouncements

In February 2016, Financial Accounting Standards Board ("FASB") issued Accounting Standards Update ("ASU") No. 2016-02, "Leases (Topic 842)", requiring organizations that lease assets—referred to as "lessees"—to recognize on the consolidated balance sheet the assets and liabilities for the rights and obligations created by those

leases. Under the new guidance, a lessee will be required to recognize assets and liabilities for leases with lease terms of more than 12 months. The ASU on leases took effect for public companies for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2018. We adopted this new standard on January 1, 2019, using the alternative modified transition method, that means using a cumulative-effect adjustment, if any, to the opening balance of retained earnings to be recognized on the date of adoption with prior periods not restated. Upon adoption, on January 1, 2019, we recorded a \$1,941,000 increase in operating lease right-of-use assets, a \$69,000 decrease in other current assets, a \$115,000 decrease in other liabilities and a \$1,985,000 increase in operating lease obligations. There was no cumulative-effect adjustment needed on January 1, 2019. The new standard provides a number of optional practical expedients in transition. We elected the following "package of practical expedients" when assessing the transition impact as the lessee as of January 1, 2019: (1) not to reassess whether any expired or existing contracts, contain leases; (2) not to reassess the lease classification for any expired or existing leases; and (3) not to reassess initial direct costs for any existing leases. Leases with an initial term of 12 months or less are not recorded on the balance sheet as we recognize lease expense for these leases on a straight-line basis over the lease term. The major impact for KindredBio was the balance sheet recognition of right-of-use ("ROU") assets and lease liabilities for operating leases as a lessee. We determine if an agreement contains a lease at inception. For agreements where we are the lessee, operating leases are included in operating lease right-of-use assets, current portion of operating lease liabilities and long-term portion operating lease liabilities on the condensed consolidated balance sheet as of March 31, 2019. Operating lease ROU assets and operating lease liabilities are recognized based on the present value of the future minimum lease payments over the lease term at commencement date. ROU assets also include any initial direct costs incurred and any lease payments made at or before the lease commencement date, less lease incentive received. We use our own incremental borrowing rate based on the information available at the commencement date in determining the lease liabilities as our leases generally do not provide an implicit rate. Lease terms don't include options to extend or terminate when we are reasonably certain that the option will not be exercised. Lease expense is recognized on a straight-line basis over the lease term.

In July 2018, the FASB issued ASU No. 2018-10, "Codification Improvements to Topic 842, Leases", which affects narrow aspects of the guidance issued in ASU No. 2016-02. The amendments in this ASU related to transition do not include amendments from proposed ASU, Leases (Topic 842): Targeted Improvements, specific to a new and optional transition method to adopt the new lease requirements in Update 2016-02. The effective date and transition requirements are the same as the effective date and transition requirements in Topic 842. The adoption of this standard did not have material impact on our financial statements.

In July 2018, the FASB issued ASU No. 2018-11, "Targeted Improvements to Topic 842, Leases". The Standard provide another transition method in addition to the existing transition method by allowing entities to initially apply the new lease standard at the adoption date and recognize a cumulative-effect adjustment to the opening balance of retained earnings in the period of adoption. The effective date and transition requirements will be the same as the effective date and transition requirements in Topic 842. Our adoption of this standard did not require an adjustment to our opening balance of retained earnings and did not have material impact on our financial statements.

In August 2018, the FASB issued ASU No. 2018-13, "Fair Value Measurement (Topic 820)", changes to disclosure requirements for fair value measurement. The amendments of this update modify the disclosure requirements on fair value measurements about Topic 820. It applies to all reporting entities within the scope of the affected accounting guidance. It will take effect for public companies for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2019. We are currently evaluating the new guidance and have not determined the impact this standard may have on our financial statements.

We do not believe there are any other recently issued standards not yet effective that will have a material impact on our financial statements when the standards become effective.

ITEM 3. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

The primary objective of our investment activities is to preserve capital. We do not utilize hedging contracts or similar instruments.

We are exposed to certain market risks relating primarily to (1) interest rate risk on our cash and cash equivalents, (2) market price risk on our investments, and (3) risks relating to the financial viability of the institutions which hold our capital and through which we have invested our funds. We manage such risks by investing in short-term, liquid, highly-rated instruments. As of March 31, 2019, our cash equivalents and investments are invested in money market funds, U.S. treasury bills, U.S. federal agency notes, corporate notes, commercial paper and U.S treasury bonds. We do not believe we have any material exposure to interest rate risk due to the extremely low interest rate environment, the short duration of the securities we hold and our ability to hold our investments to maturity if necessary. Declines in interest rates would reduce investment income, but would not have a material effect on our financial condition or results of operations.

We do not currently have exposure to foreign currency risk.

ITEM 4. CONTROLS AND PROCEDURES

Disclosure Controls and Procedures

As of the end of the period covered by this quarterly report on Form 10-Q, our management, with the participation of our Chief Executive Officer and Chief Financial Officer (the "Certifying Officers"), evaluated the effectiveness of our disclosure controls and procedures. Disclosure controls and procedures are controls and procedures designed to reasonably assure that information required to be disclosed in our reports filed under the Securities Exchange Act of 1934 (the "Exchange Act"), such as this report, is recorded, processed, summarized and reported within the time periods specified in the SEC rules and forms. Disclosure controls and procedures are also designed to reasonably assure that such information is accumulated and communicated to our management, including the Certifying Officers, as appropriate to allow timely decisions regarding required disclosure. Based on these evaluations, the Certifying Officers have concluded, that, as of the end of the period covered by this report:

- (a) our disclosure controls and procedures were effective to provide reasonable assurance that information required to be disclosed by us in the reports we file or submit under the Exchange Act was recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms; and
- (b) our disclosure controls and procedures were effective to provide reasonable assurance that material information required to be disclosed by us in the reports we file or submit under the Exchange Act was accumulated and communicated to our management, including the Certifying Officers, as appropriate to allow timely decisions regarding required disclosure.

Changes in Internal Control over Financial Reporting

There has not been any change in our internal control over financial reporting that occurred during the period ended March 31, 2019 that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

PART II — OTHER INFORMATION

ITEM 1. LEGAL PROCEEDINGS

None.

ITEM 1A. RISK FACTORS

You should consider the "Risk Factors" included under Item 1A of our Annual Report on Form 10-K for the year ended December 31, 2018 filed with the SEC on March 6, 2019. There have been no material changes to those Risk Factors.

ITEM 2. UNREGISTERED SALES OF EQUITY SECURITIES AND USE OF PROCEEDS

Unregistered Sales of Equity Securities and Issuer Purchases of Equity Securities

None.

Use of Proceeds from the Sale of Registered Securities

On December 11, 2013, our registration statement on Form S-1 (File No. 333-192242) was declared effective by the Securities and Exchange Commission (SEC) for our initial public offering pursuant to which we sold an aggregate of 8,625,000 shares of our common stock at a price to the public of \$7.00 per share. We have used all proceeds from our initial public.

ITEM 3. DEFAULTS UPON SENIOR SECURITIES

None.

ITEM 4. MINE SAFETY DISCLOSURES

Not applicable.

ITEM 5. OTHER INFORMATION

None.

ITEM 6. EXHIBITS

EXHIBIT INDEX

Exhibit Number	Description
31.1	Sarbanes-Oxley Act Section 302 Certification of Chief Executive Officer
31.2	Sarbanes-Oxley Act Section 302 Certification of Chief Financial Officer
32.1	Sarbanes-Oxley Act Section 906 Certification of Chief Executive Officer and Chief Financial Officer
101.INS	XBRL Instance Document
101.SCH	XBRL Taxonomy Extension Schema Document
101.CAL	XBRL Taxonomy Extension Calculation Linkbase Document
101.DEF	XBRL Taxonomy Extension Definition Linkbase Document
101.LAB	XBRL Taxonomy Extension Labels Linkbase Document
101.PRE	XBRL Taxonomy Extension Presentation Linkbase Document
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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: May 9, 2019

Kindred Biosciences, Inc.

By: /s/ Wendy Wee

Wendy Wee

Chief Financial Officer

(Principal Financial and Accounting Officer)

Certification of the Chief Executive Officer Under Section 302 of the Sarbanes-Oxley Act

I, Richard Chin, certify that:

- 1. I have reviewed this quarterly report on Form 10-Q of Kindred Biosciences, 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 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 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 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 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: May 9, 2019 By: /s/ Richard Chin

Name: Richard Chin, MD

Title: Chief Executive Officer

(Principal Executive Officer)

Certification of the Chief Financial Officer Under Section 302 of the Sarbanes-Oxley Act

- I, Wendy Wee, certify that:
- 1. I have reviewed this quarterly report on Form 10-Q of Kindred Biosciences, 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 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 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 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 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: May 9, 2019 By: /s/ Wendy Wee

Name: Wendy Wee

Title: Chief Financial Officer

(Principal Financial and Accounting Officer)

CERTIFICATION OF THE PRINCIPAL EXECUTIVE OFFICER AND PRINCIPAL FINANCIAL AND ACCOUNTING OFFICER

Pursuant to 18 U.S.C. § 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, each of the undersigned officers of Kindred Biosciences, Inc. (the "Company") hereby certifies that, to his or her knowledge:

- (i) The quarterly report on Form 10-Q for the period ended March 31, 2019 (the "Report") fully complies with the requirements of Section 13(a) or Section 15(d), as applicable, of the Securities Exchange Act of 1934, as amended; and
- (ii) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: May 9, 2019 By: /s/ Richard Chin By: /s/ Wendy Wee

Name: Richard Chin, MD Name: Wendy Wee

Title: Chief Executive Officer Title: Chief Financial Officer

(Principal Executive Officer) (Principal Financial and Accounting Officer)