

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 10-Q

QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the quarterly period ended **March 31, 2020**

OR

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

For the transition period from _____ to _____

Commission file number 001-35312

CHF SOLUTIONS, INC.
(Exact Name of Registrant as Specified in its Charter)

Delaware
(State or Other Jurisdiction of Incorporation or Organization)

No. 68-0533453
(I.R.S. Employer Identification No.)

12988 Valley View Road, Eden Prairie, MN 55344
(Address of Principal Executive Offices) (Zip Code)

(952) 345-4200
(Registrant's Telephone Number, Including Area Code)

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

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common Stock, par value \$0.0001 per share	CHFS	Nasdaq Capital Market

Indicate by check mark whether the registrant: (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days.

Yes No

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files).

Yes No

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company" and "emerging growth company" in Rule 12b-2 of the Exchange Act:

Large accelerated filer
Non-accelerated filer
Emerging growth company

Accelerated filer
Smaller reporting company

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

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act).

Yes No

The number of outstanding shares of the registrant's common stock, \$0.0001 par value, as of May 11, 2020 was 38,906,878

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PART I—FINANCIAL INFORMATION
ITEM 1. FINANCIAL STATEMENTS
CHF SOLUTIONS, INC. AND SUBSIDIARIES
Condensed Consolidated Balance Sheets

(In thousands, except share and per share amounts)

	March 31, 2020	December 31, 2019
	(unaudited)	
ASSETS		
Current assets		
Cash and cash equivalents	\$ 5,669	\$ 1,279
Accounts receivable	727	799
Inventory	2,195	1,797
Other current assets	141	161
Total current assets	8,732	4,036
Property, plant and equipment, net	897	991
Operating lease right-of-use asset	397	442
Other assets	21	133
TOTAL ASSETS	\$ 10,047	\$ 5,602
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities		
Accounts payable	\$ 787	\$ 1,488
Accrued compensation	1,114	1,592
Current portion of operating lease liability	191	186
Other current liabilities	39	85
Total current liabilities	2,131	3,351
Operating lease liability	212	261
Total liabilities	2,343	3,612
Commitments and contingencies	—	—
Stockholders' equity		
Series A junior participating preferred stock as of March 31, 2020 and December 31, 2019, par value \$0.0001 per share; authorized 30,000 shares, none outstanding	—	—
Series F convertible preferred stock as of March 31, 2020 and December 31, 2019, par value \$0.0001 per share; authorized 435 and 535 shares, respectively, issued and outstanding 435 and 535, respectively	—	—
Series H convertible preferred stock as of March 31, 2020 and December 31, 2019, par value \$0.0001 per share; authorized 488,090 and 0 shares, respectively, issued and outstanding 488,090 and 0, respectively	—	—
Preferred stock as of March 31, 2020 and December 31, 2019, par value \$0.0001 per share; authorized 39,481,475 and 39,969,465 shares, none outstanding	—	—
Common stock as of March 31, 2020 and December 31, 2019, par value \$0.0001 per share; authorized 100,000,000 shares, issued and outstanding 27,142,390 and 4,674,068, respectively	3	—
Additional paid-in capital	228,560	218,278
Accumulated other comprehensive income:		
Foreign currency translation adjustment	1,211	1,214
Accumulated deficit	(222,070)	(217,502)
Total stockholders' equity	7,704	1,990
TOTAL LIABILITIES AND STOCKHOLDERS' EQUITY	\$ 10,047	\$ 5,602

See notes to the condensed consolidated financial statements.

CHF SOLUTIONS, INC. AND SUBSIDIARIES
Condensed Consolidated Statements of Operations and Comprehensive Loss
(Unaudited)

(In thousands, except per share amounts)

	Three months ended March 31,	
	2020	2019
Net sales	\$ 1,630	\$ 1,215
Costs and Expenses:		
Cost of goods sold	796	612
Selling, general and administrative	4,537	4,018
Research and development	864	1,310
Total costs and expenses	<u>6,197</u>	<u>5,940</u>
Loss from operations	(4,567)	(4,725)
Other income, net	1	-
Loss before income taxes	(4,566)	(4,725)
Income tax expense	(2)	(2)
Net loss	<u>\$ (4,568)</u>	<u>\$ (4,727)</u>
Basic and diluted loss per share	<u>\$ (0.37)</u>	<u>\$ (11.47)</u>
Weighted average shares outstanding – basic and diluted	16,439	805
Other comprehensive income:		
Foreign currency translation adjustments	\$ (3)	\$ (2)
Total comprehensive loss	<u>\$ (4,571)</u>	<u>\$ (4,729)</u>

See notes to the condensed consolidated financial statements.

CHF SOLUTIONS, INC. AND SUBSIDIARIES
Condensed Consolidated Statements of Stockholders' Equity
(Unaudited)

(In thousands, except share amounts)

	Outstanding Shares of Common Stock	Common Stock	Additional Paid in Capital	Accumulated Other Comprehensive Income	Accumulated Deficit	Stockholders' Equity
Balance December 31, 2018	513,445	\$ —	\$ 204,101	\$ 1,223	\$ (199,388)	\$ 5,936
Net loss	—	—	—	—	(4,727)	(4,727)
Foreign currency translation adjustment	—	—	—	(2)	—	(2)
Stock-based compensation and stock awards, net	3	—	362	—	—	362
Issuance of common and preferred stock, net	455,178	—	10,959	—	—	10,959
Conversion of preferred stock into common stock	1,100,394	—	—	—	—	—
Balance March 31, 2019	2,069,020	\$ —	\$ 215,422	\$ 1,221	\$ (204,115)	\$ 12,528

	Outstanding Shares of Common Stock	Common Stock	Additional Paid in Capital	Accumulated Other Comprehensive Income	Accumulated Deficit	Stockholders' Equity
Balance December 31, 2019	4,674,068	\$ —	\$ 218,278	\$ 1,214	\$ (217,502)	\$ 1,990
Net loss	—	—	—	—	(4,568)	(4,568)
Foreign currency translation adjustment	—	—	—	(3)	—	(3)
Stock-based compensation, net	—	—	380	—	—	380
Issuance of common and preferred stock, net	10,207,759	3	9,613	—	—	9,616
Exercise of warrants	898,050	—	289	—	—	289
Conversion of preferred stock into common stock	11,362,513	—	—	—	—	—
Balance March 31, 2020	27,142,390	\$ 3	\$ 228,560	\$ 1,211	\$ (222,070)	\$ 7,704

See notes to the condensed consolidated financial statements

CHF SOLUTIONS, INC. AND SUBSIDIARIES
Condensed Consolidated Statements of Cash Flows
(Unaudited)
(in thousands)

	Three months ended	
	March 31,	
	2020	2019
Operating Activities:		
Net loss	\$ (4,568)	\$ (4,727)
Adjustments to reconcile net loss to cash flows used in operating activities:		
Depreciation and amortization	65	59
Stock-based compensation expense, net	380	362
Loss on disposal of property and equipment	46	—
Changes in operating assets and liabilities:		
Accounts receivable	72	164
Inventory	(398)	(132)
Other current assets	20	(147)
Other assets and liabilities	67	112
Accounts payable and accrued expenses	(1,179)	(598)
Net cash used in operating activities	(5,495)	(4,907)
Investing Activities:		
Purchases of property and equipment	(17)	(41)
Net cash used in investing activities	(17)	(41)
Financing Activities:		
Proceeds from public stock offerings, net	9,616	10,959
Proceeds from warrant exercises	289	—
Net cash provided by financing activities	9,905	10,959
Effect of exchange rate changes on cash	(3)	(2)
Net increase (decrease) in cash and cash equivalents	4,390	6,009
Cash and cash equivalents - beginning of period	1,279	5,480
Cash and cash equivalents - end of period	\$ 5,669	\$ 11,489
Supplemental cash flow information		
Cash paid for income taxes	\$ —	\$ —

See notes to the condensed consolidated financial statements.

CHF SOLUTIONS, INC. AND SUBSIDIARIES
Notes to Condensed Consolidated Financial Statements
(Unaudited)

Note 1 – Nature of Business and Basis of Presentation

Nature of Business: CHF Solutions, Inc. (the “Company”) is a medical device company focused on developing, manufacturing and commercializing the Aquadex FlexFlow® and Aquadex SmartFlow™ systems (herein referred to as the “Aquadex System”) for aquapheresis therapy. The Aquadex SmartFlow system is indicated for temporary (up to eight hours) or extended (longer than 8 hours in patients who require hospitalization) use in adult and pediatric patients weighing 20kg or more whose fluid overload is unresponsive to medical management, including diuretics. CHF Solutions, Inc. is a Delaware corporation headquartered in Minneapolis with wholly owned subsidiaries in Australia, Ireland and Delaware. The Company has been listed on Nasdaq since February 2012.

Previously, the Company was focused on developing the C-Pulse® Heart Assist System for treatment of Class III and ambulatory Class IV heart failure. In August 2016, the Company acquired the business associated with the Aquadex FlexFlow system (herein referred to as the “Aquadex Business”) from a subsidiary of Baxter International, Inc. (“Baxter”), and refocused its strategy to fully devote its resources to the Aquadex Business.

Principles of Consolidation: The accompanying unaudited condensed consolidated financial statements have been prepared in accordance with accounting principles generally accepted in the United States of America (“U.S. GAAP”) for interim financial information and with the instructions to Form 10-Q and Article 8 of Regulation S-X. Certain information and note disclosures normally included in the audited annual consolidated financial statements have been condensed or omitted pursuant to those rules and regulations. Accordingly, they do not include all of the information necessary for a fair presentation of results of operations, comprehensive loss, financial condition, and cash flows in conformity with U.S. GAAP. In the opinion of management, the condensed consolidated financial statements reflect all adjustments (consisting of normal recurring adjustments) considered necessary for a fair presentation of the results of the Company for the periods presented. Operating results for interim periods are not necessarily indicative of results that may be expected for the year as a whole. The preparation of the financial statements in conformity with U.S. GAAP requires management to make estimates and assumptions that affect the reported amounts of assets, liabilities, revenues, expenses, and the related disclosures at the date of the financial statements and during the reporting period. Actual results could materially differ from these estimates.

For further information, refer to the consolidated financial statements and notes thereto included in the Company’s Annual Report on Form 10-K for the year ended December 31, 2019.

Going Concern: The Company’s financial statements have been prepared and presented on a basis assuming it continues as a going concern. During the years ended December 31, 2019 and 2018 and through March 31, 2020, the Company incurred losses from operations and net cash outflows from operating activities as disclosed in the consolidated statements of operations and cash flows, respectively. As of March 31, 2020, the Company had an accumulated deficit of \$222.1 million and it expects to incur losses for the immediate future. To date, the Company has been funded by debt and equity financings, and although the Company believes that it will be able to successfully fund its operations, there can be no assurance that it will be able to do so or that it will ever operate profitably. These factors raise substantial doubt about the Company’s ability to continue as a going concern through the next twelve months.

The Company became a revenue generating company after acquiring the Aquadex Business in August 2016. The Company expects to incur additional losses in the near-term as it grows the Aquadex Business, including investments in expanding its sales and marketing capabilities, purchasing inventory, manufacturing components, and complying with the requirements related to being a U.S. public company. To become and remain profitable, the Company must succeed in expanding the adoption and market acceptance of the Aquadex FlexFlow. This will require the Company to succeed in training personnel at hospitals and effectively and in efficiently manufacturing, marketing and distributing the Aquadex FlexFlow and related components. There can be no assurance that the Company will succeed in these activities, and it may never generate revenues sufficient to achieve profitability.

During 2018, 2019 and through May 5, 2020, the Company closed on underwritten public and other equity offerings for aggregate net proceeds of approximately \$30.3 million after deducting the underwriting discounts and commissions or placement agents fees and offering expenses, as applicable, and other costs associated with the offerings (see Note 4 –Shareholder’s Equity). The Company will require additional funding to grow its Aquadex Business, which may not be available on terms favorable to the Company, or at all. The Company may receive those funds from the proceeds from future warrant exercises, issuances of equity securities, or other financing transactions. Should warrant exercises not materialize or future capital raising be unsuccessful, the Company may not be able to continue as a going concern. No adjustments have been made relating to the recoverability and classification of recorded asset amounts and classification of liabilities that might be necessary should the Company not continue as a going concern.

Revenue Recognition: The Company recognizes revenue in accordance with Accounting Standards Codification (“ASC”), Topic 606, *Revenue from Contracts with Customers*, which the Company adopted effective January 1, 2018. Accordingly, the Company recognizes revenue when its customers obtain control of its products or services, in an amount that reflects the consideration that the Company expects to receive in exchange for those goods and services. See Note 2 – Revenue Recognition, for disclosures. For the three months ended March 31, 2020, three customers represented 15%, 13% and 10% of net sales. For the three months ended March 31, 2019, one customer represented 12% of net sales.

Accounts Receivable: Accounts receivable are unsecured, are recorded at net realizable value, and do not bear interest. The Company makes judgments as to its ability to collect outstanding receivables based upon significant patterns of collectability, historical experience, and managements’ evaluation of specific accounts and will provide an allowance for credit losses when collection becomes doubtful. The Company performs credit evaluations of its customers’ financial condition on an as-needed basis. Payment is generally due 30 days from the invoice date and accounts past 30 days are individually analyzed for collectability. When all collection efforts have been exhausted, the account is written off against the related allowance. To date the Company has not experienced any write-offs or significant deterioration of the aging of its accounts receivable, and therefore, no allowance for doubtful accounts was considered necessary as of March 31, 2020 or December 31, 2019. As of March 31, 2020, two customers represented 23% and 18% of the accounts receivable balance. As of December 31, 2019, two customers represented 13% and 12% of the accounts receivable balance.

Inventories: Inventories represent finished goods purchased from the Company’s supplier and are recorded as the lower of cost or net realizable value using the first-in-first out method. Overhead is allocated to manufactured finished goods inventory based on the normal capacity of the company’s production facilities. Abnormal amounts of overhead, if any, are expensed as incurred. Inventories consisted of the following:

<i>(in thousands)</i>	March 31, 2020	December 31, 2019
Finished Goods	\$ 882	\$ 750
Work in Process	221	79
Raw Materials	1,092	968
Total	<u>\$ 2,195</u>	<u>\$ 1,797</u>

Loss per share: Basic loss per share is computed based on the net loss for each period divided by the weighted average number of common shares outstanding. The net loss allocable to common stockholders for the three months ended March 31, 2020, reflects a \$1.6 million increase for the net deemed dividend to preferred stockholders provided in connection with the close of the public offering of Series H Convertible Preferred Stock on January 28, 2020. The net loss allocable to common stockholders for the three months ended March 31, 2019, reflects a \$4.5 million increase for the net deemed dividend to preferred stockholders provided in connection with the close of the public offering of Series G Convertible Preferred Stock on March 12, 2019. The deemed dividends represent the intrinsic value of the preferred shares at the time of issuance. See Note 4 – Shareholders’ Equity for additional disclosures.

Diluted earnings per share is computed based on the net loss allocable to common stockholders for each period divided by the weighted average number of common shares outstanding, increased by the number of additional shares that would have been outstanding had the potentially dilutive common shares been issued, and reduced by the number of shares the Company could have repurchased from the proceeds from issuance of the potentially dilutive shares. Potentially dilutive shares of common stock include shares underlying outstanding convertible preferred stock, warrants, stock options and other stock-based awards granted under stock-based compensation plans.

The following table sets forth the potential shares of common stock that are not included in the calculation of diluted net loss per share because to do so would be anti-dilutive as of the end of each period presented:

	March 31	
	2020	2019
Warrants to purchase common stock	27,775,444	5,330,721
Series H convertible preferred stock	488,090	—
Series G convertible preferred stock	—	810,142
Series F convertible preferred stock	1,450,290	102,185
Stock options	421,062	138,104
Total	<u>30,134,886</u>	<u>6,381,152</u>

The following table reconciles reported net loss with reported net loss per share for each of the three months ended March 31:

<i>(in thousands, except per share amounts)</i>	2020	2019
Net loss	\$ (4,568)	\$ (4,727)
Deemed dividend to preferred shareholders (see Note 4)	(1,588)	(4,508)
Net loss after deemed dividend	(6,156)	(9,235)
Weighted average shares outstanding	16,439	805
Basic and diluted loss per share	<u>\$ (0.37)</u>	<u>\$ (11.47)</u>

The Company evaluates events through the date the consolidated financial statements are filed for events requiring adjustment to or disclosure in the consolidated financial statements.

Note 2 – Revenue Recognition

Net Sales

The Company sells its products in the United States primarily through a direct sales force. Customers who purchase the Company's products include hospitals and clinics throughout the United States. In countries outside the United States, the Company sells its products through a limited number of specialty healthcare distributors in the United Kingdom, Italy, Spain, Germany, Austria, Switzerland, Southeast Asia, Brazil, India, Greece and the United Arab Emirates. These distributors resell the Company's products to hospitals and clinics in their respective geographies.

Revenue from product sales are recognized when the customer or distributor obtains control of the product, which occurs at a point in time, most frequently upon shipment of the product or receipt of the product, depending on shipment terms. The Company's standard shipping terms are FOB shipping point, unless the customer requests that control and title to the inventory transfer upon delivery.

Revenue is measured as the amount of consideration we expect to receive, adjusted for any applicable estimates of variable consideration and other factors affecting the transaction price, which is based on the invoiced price, in exchange for transferring products. All revenue is recognized when the Company satisfies its performance obligations under the contract. The majority of the Company's contracts have a single performance obligation and are short term in nature. The Company has entered into extended service plans with customers which are recognized over time. This revenue represents less than 1% of net sales for the three months ended March 31, 2020 and 2019. The unfulfilled performance obligations related to these extended service plans is included in deferred revenue, which is included in other current liabilities on the consolidated balance sheets. The majority of the deferred revenue is expected to be recognized within one year.

Sales taxes and value added taxes in foreign jurisdictions that are collected from customers and remitted to governmental authorities are accounted for on a net basis and therefore are excluded from net sales. Revenue includes shipment and handling fees charged to customers. Shipping and handling costs associated with outbound freight after control over a product has transferred to a customer are accounted for as a fulfillment cost and are included in cost of goods sold.

Product Returns: The Company offers customers a limited right of return for its product in case of non-conformity or performance issues. The Company estimates the amount of its product sales that may be returned by its customers and records this estimate as a reduction of revenue in the period the related product revenue is recognized. The Company currently estimates product return liabilities using available industry data and its own historical sales and returns information. The Company has not received any returns to date and believes that future returns of its products will be minimal. Therefore, revenue recognized is not currently impacted by variable consideration related to product returns.

Note 3 - Debt

On August 5, 2016, the Company entered into a loan and security agreement with Silicon Valley Bank (the "Bank"). Under this agreement, the Bank agreed to provide the Company with up to \$5.0 million in debt financing, consisting of a term loan in an aggregate original principal amount not to exceed \$4.0 million (the "Term Loan") and a revolving line of credit in an aggregate principal amount not to exceed \$1.0 million outstanding at any time (the "Revolving Line"). Proceeds from the loans were to be used for general corporate and working capital purposes. Advances under the Term Loan were available to the Company until November 30, 2016 and were subject to the Company's compliance with liquidity covenants. The Term Loan expired unused on November 30, 2016 and the Term Loan is no longer available to be drawn. Advances under the Revolving Line were available to the Company until March 31, 2020 and were to accrue interest at a floating annual rate equal to 1.75% or 1.0% above the prime rate, depending on liquidity factors. Outstanding borrowings, if any, were to be collateralized by all of the Company's assets, excluding intellectual property which is subject to a negative pledge. There were no borrowings outstanding under this facility as of March 31, 2020 or December 31, 2019. The Revolving Line expired unused on March 31, 2020.

Note 4 – Shareholder’s Equity

Series F Convertible Preferred Stock: On November 27, 2017, the Company closed on an underwritten public offering Series F Convertible Preferred Stock and warrants to purchase shares of common stock for gross proceeds of \$18.0 million. Net proceeds totaled approximately \$16.2 million after deducting the underwriting discounts and commissions and other costs associated with the offering.

The offering was comprised of Series F convertible preferred stock, convertible into shares of the Company’s common stock at an initial conversion price of \$63.00 per share. Each share of Series F convertible preferred stock was accompanied by a Series 1 warrant, which was to expire on the first anniversary of its issuance, to purchase 16 shares of the Company’s common stock at an exercise price of \$63.00 per share, and a Series 2 warrant, which expires on the seventh anniversary of its issuance, to purchase 16 shares of the Company’s common stock at an exercise price of \$63.00 per share. The Series F convertible preferred stock has full ratchet price based anti-dilution protection, subject to customary carve outs, in the event of a down-round financing at a price per share below the conversion price of the Series F convertible preferred stock (which protection will expire if, during any 20 of 30 consecutive trading days, the volume weighted average price of the Company’s common stock exceeds 300% of the then-effective conversion price of the Series F convertible preferred stock and the daily dollar trading volume for each trading day during such period exceeds \$200,000). The exercise price of the warrants is fixed and does not contain any variable pricing features, nor any price based anti-dilutive features, apart from customary adjustments for stock splits, combinations, reclassifications, stock dividends or fundamental transactions. A total of 18,000 shares of Series F convertible preferred stock initially convertible into 286,714 shares of common stock and warrants to purchase 573,310 shares of common stock were issued in the offering.

Effective July 3, 2018, the conversion price of the Series F convertible preferred stock was reduced from \$63.00 to \$29.68, the per share price in the July 2018 Offering described below. Effective March 12, 2019, the conversion price of the Series F convertible preferred stock was reduced from \$29.68 to \$5.25, the per share price to the public of the Series G convertible preferred stock which closed in an underwritten public offering on March 12, 2019. Effective October 25, 2019, the conversion price of the Series F convertible preferred stock was reduced from \$5.25 to \$1.41, and on November 6, 2019 from \$1.41 to \$0.9942, the per share price to the public in the October and November 2019 transactions, respectively, described below. Effective January 28, 2020, the conversion price of the Series F convertible preferred stock was reduced from \$0.9942 to \$0.55, the per share price to the public of the Series H convertible preferred stock which closed in an underwritten public offering on January 28, 2020. Effective March 23, 2020, the conversion price of the Series F convertible preferred stock was reduced from \$0.55 to \$0.30, the per share price to the public in the March 2020 transaction, described below. As of March 31, 2020, and December 31, 2019, 435 and 535 shares of the Series F convertible preferred stock remained outstanding, respectively.

July 2018 Offering: On July 3, 2018, the Company closed on an underwritten public offering of 181,941 shares of its common stock at a public offering price of \$29.68 per share, for gross proceeds of \$5.4 million, including the full exercise of the underwriters’ over-allotment option to purchase additional shares of the Company’s common stock (the “July 2018 Offering”). Net proceeds totaled approximately \$4.6 million after deducting underwriting discounts and commissions and offering expenses.

In connection with the July 2018 Offering, and to induce certain institutional investors who hold warrants issued by the Company in November 2017 (“November 2017 Warrants”) to participate in the July 2018 Offering, the Company entered into letter agreements with such institutional investors. Pursuant to the terms of these agreements, the Company agreed, effective July 3, 2018, to reduce the per share exercise price of the November 2017 Warrants held by such institutional investors to \$29.68 and to extend the expiration date of the warrants that were to expire on November 27, 2018 to November 27, 2019. The number of common shares underlying the warrants that were repriced did not change. The repriced warrants were exercisable for 554,322 shares of common stock in the aggregate, of which, following such amendment, half expired on November 27, 2019 and half will expire on November 27, 2024. The repricing of the warrants was accounted as an equity financing cost, with no impact to net proceeds from the offering.

Series G Convertible Preferred Stock and March 2019 Offering: On March 12, 2019, the Company closed on an underwritten public offering of common stock, Series G convertible preferred stock and warrants to purchase shares of common stock for gross proceeds of \$12.4 million, which included the full exercise of the underwriter’s over-allotment option to purchase additional shares and warrants (“March 2019 Offering”). Net proceeds totaled approximately \$11.0 million after deducting the underwriting discounts and commissions and other costs associated with the offering. The Series G convertible preferred stock included a beneficial conversion amount of \$4.5 million, representing the intrinsic value of the shares at the time of issuance. This amount is reflected as an increase to the loss per share allocable to common stockholders in the three months ended March 31, 2019.

The March 2019 Offering was comprised of 455,178 shares of common stock priced at \$5.25 per share and 1,910,536 shares of Series G convertible preferred stock, convertible into common stock at \$5.25 per share. Each share of Series G convertible preferred stock and each share of common stock was accompanied by a Series 1 warrant and a Series 2 warrant. The Series 1 warrants are exercisable into 2,365,714 shares of common stock and the Series 2 warrants are exercisable into 2,365,714 shares of common stock. Series 1 warrants expire on the fifth anniversary of the date of issuance and are exercisable at \$5.25 to purchase one share of common stock. Series 2 warrants expire on the earlier of: (i) the eighteen-month anniversary of the date of issuance and (ii) the 30th trading day following the public announcement of the receipt from the U.S. Food and Drug Administration (FDA) of clearance or approval of a modification to the product label for the Aquadex System to include pediatric patients. Series 2 warrants are exercisable at \$5.25 per share of common stock. The Company announced it had received FDA clearance for use of its Aquadex System in pediatric patients on February 26, 2020, effectively setting the date of expiration of these warrants for April 8, 2020. The conversion price of the Series G convertible preferred stock as well as the exercise price of the warrants are fixed and do not contain any variable pricing features, nor any price based anti-dilutive features apart from customary adjustments for splits and reverse splits of common stock. The Series G convertible preferred stock included a beneficial ownership limitation of 4.99% but had no dividend preference (except to extent dividends are also paid on the common stock), liquidation preference or other preferences over common stock. The securities comprising the units were immediately separable and were issued separately.

As of March 31, 2020, and December 31, 2019, all 1,910,536 shares of the Series G convertible preferred stock had been converted into common stock and none remained outstanding.

October and November 2019 Offerings: On October 25, 2019, the Company closed on a registered direct offering of 575,830 shares of common stock at a price of \$1.15 per share, for gross proceeds of approximately \$660,000, prior to deducting commissions and expenses related to the transaction. In a concurrent private placement, the Company agreed to issue to the investors in the registered direct offering unregistered warrants to purchase up to 575,830 shares of its common stock at an exercise price of \$1.41 per share, which will be exercisable six months from the date of issuance, and will expire five years from the initial exercise date. On November 6, 2019, the Company closed on a registered direct offering of 1,219,076 shares of common stock, or common equivalents, at a price of \$1.12 per share, for gross proceeds of approximately \$1.36 million prior to deduction of commissions and offering expenses related to the transaction. In a concurrent private placement, the Company agreed to issue to the investors in the registered direct offering unregistered warrants to purchase up to 1,219,076 shares of our common stock at an exercise price of \$0.9942 per share, which were exercisable upon the date of issuance, and will expire five years from the initial exercise date.

The unregistered warrants issued in each offering were subsequently registered pursuant to a registration statement on Form S-1 that was declared effective by the SEC on December 30, 2019.

Series H Convertible Preferred Stock and January 2020 Offering: On January 28, 2020, the Company closed on an underwritten public offering of common stock, Series H convertible preferred stock and warrants to purchase shares of common stock for gross proceeds of \$9.7 million, which included the full exercise of the underwriter's over-allotment option to purchase additional shares and warrants ("January 2020 Offering"). Net proceeds totaled approximately \$8.6 million after deducting the underwriting discounts and commissions and other costs associated with the offering. The Series H convertible preferred stock included a beneficial conversion amount of \$1.6 million, representing the intrinsic value of the shares at the time of issuance. This amount is reflected as an increase to the loss per share allocable to common stockholders in the three months ended March 31, 2020.

The January 2020 Offering was comprised of 6,046,367 shares of common stock priced at \$0.55 per share and 11,517,269 shares of Series H convertible preferred stock, convertible into common stock at \$0.55 per share, including the full exercise of the over-allotment option. Each share of Series H convertible preferred stock and each share of common stock was accompanied by a warrant to purchase common stock. The warrants are exercisable into 17,563,636 shares of common stock. The conversion price of the preferred stock issued in the transaction is fixed and does not contain any variable pricing feature or any price based anti-dilutive feature. The preferred stock issued in this transaction includes a beneficial ownership blocker but has no dividend rights (except to the extent that dividends are also paid on the common stock) or liquidation preference, and, subject to limited exceptions, has no voting rights. The securities comprising the units are immediately separable and were issued separately. The warrants are exercisable beginning on the closing date and expire on the fifth anniversary of the closing date and have an initial exercise price per share equal to \$0.55 per share, subject to appropriate adjustment in the event of subsequent equity sales of common stock or securities convertible into common stock for an exercise price per share less than the exercise price per share of the warrants then in effect (but in no event lower than 10% of the applicable Unit offering price), or in the event of recapitalization events, stock dividends, stock splits, stock combinations, reclassifications, reorganizations or similar events affecting our common stock. Effective March 23, 2020, the exercise price of these warrants was reduced from \$0.55 to \$0.30, the per share price to the public in the March 2020 transaction, described below.

As of March 31, 2020, 11,029,179 shares of the Series H convertible preferred stock had been converted into common stock and 488,090 shares remained outstanding.

March 2020 Offering: On March 23, 2020, the Company closed on a registered direct offering of 4,161,392 shares of its common stock at a price to the public of \$0.30 per share, for gross proceeds of approximately \$1.2 million, or \$1.0 million net after deducting commissions and offering expenses payable by CHF Solutions. In a concurrent private placement, the Company agreed to issue to the investors in the registered direct offering unregistered warrants to purchase up to 4,161,392 shares of the Company's common stock.

The warrants to purchase up to 4,161,392 shares of common stock have an exercise price of \$0.3726 per share, will be exercisable six months from the date of issuance, and will expire five and a half years from the date of issuance. On April 29, 2020, the Company filed a registration statement to register the shares of common stock issuable upon exercise of the warrants. The registration statement was declared effective by the SEC on May 8, 2020.

Placement Agent Fees: In connection with the offerings described above, the Company paid the placement agent an aggregate cash placement fee equal to 8% of the aggregate gross proceeds raised in each of the offerings.

Market-Based Warrants: On May 30, 2019, the Company granted a market-based warrant to a consultant in exchange for investor relations services. The warrant represents the right to acquire up to 100,000 shares of the Company's common stock at an exercise price of \$3.18 per share, the closing stock price of the Company's common shares on May 30, 2019. The warrant is subject to a vesting schedule based on the Company achieving certain market stock prices within a specified period of time. The warrant expires on May 30, 2024. The warrant was valued at \$1.93 per share using the Monte Carlo valuation methodology and is being expensed over the term of the consulting engagement which is twelve months. Significant inputs used for the Monte Carlo valuation were the expected stock price volatility of 136.21%, and management's expectations regarding the timing of regulatory clearance for an expanded label in pediatrics. None of these warrants had vested as of March 31, 2020.

Note 5 - Stock-Based Compensation

Under the fair value recognition provisions of U.S. GAAP for accounting for stock-based compensation, the Company measures stock-based compensation expense at the grant date based on the fair value of the award and recognizes the compensation expense over the requisite service period, which is generally the vesting period.

The following table presents the classification of stock-based compensation expense recognized for the periods below:

(in thousands)	Three-months ended March 31,	
	2020	2019
Selling, general and administrative expense	\$ 354	\$ 326
Research and development expense	26	36
Total stock-based compensation expense	\$ 380	\$ 362

Note 6 - Fair Value of Financial Instruments

The Company's financial instruments consist of cash and cash equivalents and warrants.

The Company's financial assets and liabilities are measured at fair value on a recurring basis and are classified and disclosed in one of the following three categories:

- *Level 1* - Financial instruments with unadjusted quoted prices listed on active market exchanges.
- *Level 2* - Financial instruments lacking unadjusted, quoted prices from active market exchanges, including over the counter traded financial instruments. The prices for the financial instruments are determined using prices for recently traded financial instruments with similar underlying terms as well as directly or indirectly observable inputs, such as interest rates and yield curves that are observable at commonly quoted intervals.
- *Level 3* - Financial instruments that are not actively traded on a market exchange. This category includes situations where there is little, if any, market activity for the financial instrument. The prices are determined using significant unobservable inputs or valuation techniques.

The fair value of the market-based warrants described in Note 4 was calculated using a Monte Carlo valuation model and was classified as Level 3 in the fair value hierarchy. These warrants are classified as permanent equity and as a result, were measured at the grant date and are not required to be remeasured to fair value at each reporting period end.

All cash equivalents are considered Level 1 measurements for all periods presented. The Company does not have any financial instruments classified as Level 2 or Level 3 and there were no movements between these categories as of March 31, 2020 and December 31, 2019. The Company believes that the carrying amounts of all remaining financial instruments approximate their fair value due to their relatively short maturities.

Note 7 – Income Taxes

The Company provides for a valuation allowance when it is more likely than not that it will not realize a portion of the deferred tax assets. The Company has established a full valuation allowance for U.S. and foreign deferred tax assets due to the uncertainty that enough taxable income will be generated in those taxing jurisdictions to utilize the assets. Therefore, the Company has not reflected any benefit of such deferred tax assets in the accompanying condensed consolidated financial statements.

As of March 31, 2020, there were no material changes to what the Company disclosed regarding tax uncertainties or penalties in its Annual Report on Form 10-K for the year ended December 31, 2019.

Note 8—Commitments and Contingencies

Employee Retirement Plan: The Company has a 401(k)-profit sharing plan that provides retirement benefit to substantially all full-time U.S. employees. Eligible employees may contribute a percentage of their annual compensation, subject to Internal Revenue Service (“IRS”) limitations, with the Company matching a portion of the employee’s contributions at the discretion of the Company.

Note 9—Subsequent Events

April 2020 Transaction: On April 1, 2020 the Company closed on a registered direct offering of 5,130,228 shares of its common stock at a price to the public of \$0.434 per share, for gross proceeds of approximately \$2.2 million, prior to deduction of commissions and offering related to the transaction. In a concurrent private placement, the Company agreed to issue to the investors in the registered direct offering unregistered warrants to purchase up to 2,565,114 shares of the Company’s common stock. The warrants have an exercise price of \$0.3715 per share, are exercisable immediately, and will expire five and a half years from the date of issuance. On April 29, 2020, the Company filed a registration statement to register the shares of common stock issuable upon exercise of these warrants and the warrants issued in the March 2020 transaction. The registration statement was declared effective by the SEC on May 8, 2020.

Paycheck Protection Program: On April 21, 2020, the Company announced it had received of \$1.66 million under the Paycheck Protection Program (PPP) under the federal Coronavirus Aid, Relief, and Economic Security (CARES) Act. Subsequent to the Company applying and receiving the funds under the PPP, the United States Treasury Department and the U.S. Small Business Administration issued new guidance regarding eligibility for these loans. As a result, on May 12, 2020, the Company announced it had elected to return all funds it had received under the PPP, so that these funds could be used to help another small business in greater need during the COVID-19 pandemic.

May 2020 Transaction: On May 5, 2020 the Company closed on a registered direct offering of 3,597,880 shares of its common stock at a price to the public of \$0.4725 per share, for gross proceeds of approximately \$1.7 million, prior to deduction of commissions and offering related to the transaction. In a concurrent private placement, the Company agreed to issue to the investors in the registered direct offering unregistered warrants to purchase up to 1,798,940 shares of the Company’s common stock. The warrants have an exercise price of \$0.41 per share, are exercisable immediately, and will expire five and a half years from the date of issuance. The Company has agreed to file a registration statement registering the shares of common stock issuable upon exercise of the warrants within thirty days of the closing of the private placement.

Warrant Exercises: The Company announced that, during the months of April and May 2020, it had received cash proceeds of approximately \$1.0 million, resulting from the exercise of warrants to purchase approximately 3.0 million shares of its common stock.

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

The following discussion and analysis of our financial condition and results of operations should be read in conjunction with our interim condensed consolidated financial statements and related notes included in Part I, Item 1 of this Quarterly Report and the audited consolidated financial statements and related notes and Management's Discussion and Analysis of Financial Condition and Results of Operations contained in our Annual Report on Form 10-K for the year ended December 31, 2019. This discussion contains forward-looking statements that involve risks and uncertainties. Our actual results could differ materially from those anticipated in the forward-looking statements as a result of a variety of factors, including those discussed in Part I, Item 1A "Risk Factors," in our Annual Report on Form 10-K for the year ended December 31, 2019 and in our subsequent filings with the Securities and Exchange Commission (SEC).

Unless otherwise specified or indicated by the context, CHF Solutions, Company, we, us and our, refer to CHF Solutions, Inc. and its subsidiaries.

OVERVIEW

About CHF Solutions

We are a medical device company focused on developing, manufacturing and commercializing the Aquadex FlexFlow® and Aquadex SmartFlow™ systems (herein referred to as the "Aquadex System") for aquapheresis therapy. The Aquadex SmartFlow system delivers clinically proven therapy using a simple, flexible and smart method of removing excess fluid from patients suffering from hypervolemia (fluid overload). The Aquadex SmartFlow system is indicated for temporary (up to 8 hours) or extended (longer than 8 hours in patients who require hospitalization) use in adult and pediatric patients weighing 20 kg or more whose fluid overload is unresponsive to medical management, including diuretics.

Previously, the Company was focused on developing the C-Pulse® Heart Assist System for treatment of Class III and ambulatory Class IV heart failure. In August 2016, the Company acquired the business associated with the Aquadex FlexFlow system (herein referred to as the "Aquadex Business") from a subsidiary of Baxter International, Inc. ("Baxter") and refocused its strategy to fully devote its resources on the Aquadex Business.

Impact of COVID-19 Pandemic

During the first quarter of 2020, we were subject to challenging social and economic conditions created as a result of the novel strain of coronavirus, SARS-CoV-2 ("COVID-19"). The resulting impact of the COVID-19 outbreak created disruptions in our operations resulting from rapid and evolving changes implemented to keep our customers, their patients, and our employees safe. These changes included restrictions on hospital access imposed on our employees by customers dealing in the front lines of COVID-19, changes to employees work practices by requiring employees to work remotely and ensuring the safety of those employees that remained on site. The extent of the impact of the COVID-19 outbreak on our operational and financial performance will depend on certain developments, including the duration and spread of the outbreak, impact on our customers and our sales cycles, employee or industry events, and effect on our vendors, all of which are uncertain and cannot be predicted.

We may experience constrained supply or curtailed customer demand that could materially adversely impact our business, results of operations and overall financial performance in future periods. Specifically, we may experience impact from changes in how we conduct business due to the COVID-19 pandemic, including but not limited to restrictions on travel and in-person meetings, production delays, warehouses and staffing disruptions and shortages, decreases or delays in customer demand and spending, difficulties or changes to our sales process and customer support. In addition, the disruption created by COVID-19 have created significant uncertainty about our ability to access the capital markets in future periods. As of the filing date of this Form 10-Q, the extent to which COVID-19 may impact our financial condition or results of operations or guidance is uncertain and cannot be reasonably estimated but could be material and last for an extended period of time. The effect of the COVID-19 pandemic will not be fully reflected in our results of operations and overall financial performance until future periods. See "Risk Factors" for further discussion of the possible impact of the COVID-19 pandemic on our business.

Several hospitals in the U.S. have included the Aquadex System, into their treatment protocol for fluid management for COVID-19 patients, especially when dialysis equipment and staff are limited. In March 2020, we increased production of the Aquadex System to meet anticipated demand due to the COVID-19 pandemic.

Recent Developments

Nasdaq Notice

On December 17, 2019, we received a letter (the “Notice”) from The Nasdaq Stock Market (“Nasdaq”) advising that for 30 consecutive trading days preceding the date of the Notice, the bid price of our common stock had closed below the \$1.00 per share minimum required for continued listing on the Nasdaq Capital Market pursuant to Nasdaq Listing Rule 5550(a)(2) (the “Minimum Bid Price Requirement”). The Notice has no effect on the listing of our common stock at this time, and our common stock continues to trade on the Nasdaq Capital Market under the symbol “CHFS.” Under Nasdaq Listing Rule 5810(c)(3)(A), if during the 180 calendar day period following the date of the Notice (the “Compliance Period”), the closing bid price of our common stock is at or above \$1.00 for a minimum of 10 consecutive business days, we will regain compliance with the Minimum Bid Price Requirement and our common stock will continue to be eligible for listing on the Nasdaq Capital Market, absent noncompliance with any other requirement for continued listing. If we do not regain compliance with the Minimum Bid Price Requirement by the end of the Compliance Period (or the Compliance Period as may be extended) the Company’s common stock will be subject to delisting.

On April 17, 2020, Nasdaq notified us that the 180-day period to regain compliance with the Minimum Bid Price Rule has been extended due to the global market impact caused by COVID-19. More specifically, Nasdaq has stated that the compliance periods for any company previously notified about non-compliance are suspended effective April 16, 2020, until June 30, 2020. On July 1, 2020, companies will receive the balance of any pending compliance period exception to regain compliance with the Minimum Bid Price Rule. As a result of this extension, we now have until August 28, 2020 to regain compliance with the Minimum Bid Price Rule.

We intend to monitor the closing bid price of our common stock and may, if appropriate, consider implementing available options to regain compliance with the Minimum Bid Price Requirement under the Nasdaq Listing Rules. We are asking stockholders at our Annual Meeting on May 20, 2020 to approve an amendment to our Fourth Amended and Restated Certificate of Incorporation, as amended, to give discretion to the Board of Directors to effect a reverse stock split. The Board of Directors intends to effect a reverse stock split if necessary to maintain compliance with the Minimum Bid Price Rule.

Pediatrics

In February 2020, we received 510(k) clearance of the Aquadex SmartFlow to include pediatric patients who weigh 20kg or more. The Aquadex System is being prescribed by physicians to treat various conditions in pediatric patients, including heart failure, cardiac surgery, extracorporeal membrane oxygenation (ECMO) therapy, solid organ transplantation, and kidney replacement therapy for neonatal patients.

Public Offerings

On May 5, 2020, we closed on a registered direct offering of 3,597,880 shares of common stock at a price to the public of \$0.4725 per share, for gross proceeds of approximately \$1.7 million, prior to deduction of commissions and offering related to the transaction. In a concurrent private placement, we agreed to issue to the investors in the registered direct offering unregistered warrants to purchase up to 1,798,940 shares of the Company’s common stock. The warrants have an exercise price of \$0.41 per share, are exercisable immediately, and will expire five and a half years from the date of issuance. We have agreed to file a registration statement registering the shares of common stock issuable upon exercise of the warrants within thirty days of the closing of the private placement.

On April 1, 2020, we closed on a registered direct offering of 5,130,228 shares of common stock at a price to the public of \$0.434 per share, for gross proceeds of approximately \$2.2 million, prior to deduction of commissions and offering related to the transaction. In a concurrent private placement, we agreed to issue to the investors in the registered direct offering unregistered warrants to purchase up to 2,565,114 shares of the Company’s common stock. The warrants have an exercise price of \$0.3715 per share, are exercisable immediately, and will expire five and a half years from the date of issuance.

On March 23, 2020, we closed on a registered direct offering of 4,161,392 shares of our common stock at a price to the public of \$0.30 per share, for gross proceeds of approximately \$1.2 million, prior to deduction of commissions and offering expenses associated with the transaction. In a concurrent private placement, we agreed to issue to the investors in the registered direct offering unregistered warrants to purchase up to 4,161,392 shares of the Company’s common stock. On April 29, 2020, we filed a registration statement to register the shares of common stock issuable upon exercise of the warrants that were issued on April 1, 2020 and March 23, 2020. The registration statement was declared effective by the SEC on May 8, 2020.

On January 28, 2020, we closed on an underwritten public offering of 6,046,367 shares of common stock, 11,517,269 shares of Series H Preferred Stock and warrants to purchase 17,563,636 shares of common stock, which includes the full exercise of the underwriter’s over-allotment option, for gross proceeds of approximately \$9.7 million. Net proceeds totaled approximately \$8.6 million after deducting the underwriting discounts and commissions and other costs associated with the offering.

Our outstanding Series F preferred stock is subject to full-ratchet anti-dilution protection in the event we sell any common stock at a price lower than the then-conversion price of the Series F preferred stock. As a result of these offerings, effective January 28, 2020, the conversion price of the Series F convertible preferred stock was reduced from \$0.9942 to \$0.55, the per share price to the public of the Series H convertible preferred stock. Effective March 23, 2020, the conversion price of the Series F convertible

preferred stock was reduced from \$0.55 to \$0.30, the per share price to the public in the March 23, 2020 transaction, described above.

Additionally, the warrants issued in the January 28, 2020 transaction have price protection measures in the event of subsequent equity sales of common stock or securities convertible into common stock for an exercise price per share less than the exercise price per share of the warrants then in effect. Effective March 23, 2020, the exercise price of these warrants was reduced from \$0.55 to \$0.30, the per share price to the public in the March 2020 transaction, described above.

CRITICAL ACCOUNTING POLICIES AND ESTIMATES

We have adopted various accounting policies to prepare the condensed consolidated financial statements in accordance with accounting principles generally accepted in the United States. (U.S. GAAP). Our most significant accounting policies are disclosed in Note 1 to the consolidated financial statements included in our Annual Report on Form 10-K for the year ended December 31, 2019.

The preparation of the condensed consolidated financial statements, in conformity with U.S. GAAP, requires us to make estimates and assumptions that affect the amounts reported in the condensed consolidated financial statements and accompanying notes. Our estimates and assumptions, including those related to stock-based compensation, valuation of equity and debt securities, and income tax reserves are updated as appropriate, which in most cases is quarterly. We base our estimates on historical experience, valuations, or various assumptions that are believed to be reasonable under the circumstances. There have been no material changes to our critical accounting policies and estimates from the information provided in Part II, Item 7, *Management's Discussion and Analysis of Financial Condition and Results of Operations* included in our Annual Report on Form 10-K for the year ended December 31, 2019.

Revenue Recognition: We recognize revenue in accordance with Accounting Standards Codification ("ASC"), Topic 606, Revenue from Contracts with Customers, which we adopted effective January 1, 2018. Accordingly, we recognize revenue when our customers obtain control of its products or services, in an amount that reflects the consideration that we expect to receive in exchange for those goods and services. See Note 2 – Revenue Recognition, included in Part I, Item 1 of this Quarterly Report, for additional disclosures.

Accounts Receivable: Our accounts receivable have terms that require payment in 30 days. We did not establish an allowance for doubtful accounts as of March 31, 2020 as we have not had any write offs or experienced a deterioration in the aging of our receivables, and do not expect to experience in the future.

Inventories: Inventories consist of finished goods, raw materials and subassemblies and are recorded as the lower of cost or net realizable value using the first, in-first out method.

Stock-Based Compensation: We recognize all share-based payments to employees and directors, including grants of stock options, warrants and common stock awards in the consolidated statement of operations and comprehensive loss as an operating expense based on their fair values as established at the grant date. Equity instruments issued to non-employees include common stock awards or warrants to purchase shares of our common stock. These common stock awards or warrants are either fully-vested and exercisable at the date of grant or vest over a certain period during which services are provided. We expense the fair market value of fully vested awards at the time of grant, and of unvested awards over the period in which the related services are received. In accordance with Accounting Standards Update 2018-07, unvested awards are no longer remeasured to fair value until vesting and rather the fair value is established at the grant date consistent with the treatment of employee director awards.

We compute the estimated fair values of stock options and warrants using the Black-Scholes option pricing model and market-based warrants using a Monte Carlo valuation model. Market price at the date of grant is used to calculate the fair value of restricted stock units and common stock awards.

Stock-based compensation expense is based on awards ultimately expected to vest and is reduced for estimated forfeitures except for market-based warrants which are expensed based on the grant date fair value regardless of whether the award vests. Forfeitures are estimated at the time of grant and revised, if necessary, in subsequent periods if actual forfeitures differ from those estimates.

Loss per share: We compute basic loss per share based on the net loss allocable to common stockholders for each period divided by the weighted average number of common shares outstanding. The net loss allocable to common stockholders for the three months ended March 31, 2020, reflects a \$1.6 million increase for the net deemed dividend to preferred stockholders provided in connection with the close of the public offering of Series H Convertible Preferred Stock on January 28, 2020. The net loss allocable to common stockholders for the three months ended March 31, 2019, reflects a \$4.5 million increase for the net deemed dividend to preferred stockholders provided in connection with the close of the March 2019 public offering, representing the intrinsic value of the preferred shares at the time of issuance.

Diluted earnings per share is computed based on the net loss allocable to common stockholders for each period divided by the weighted average number of common shares outstanding, increased by the number of additional shares that would have been outstanding had the potentially dilutive common shares been issued, and reduced by the number of shares the Company could have repurchased from the proceeds from issuance of the potentially dilutive shares. Potentially dilutive shares of common stock include warrants, stock options and other stock-based awards granted under stock-based compensation plans. These potentially dilutive shares were excluded from the computation of loss per share as their effect was antidilutive due to our net loss in each of those periods.

Going Concern: Our consolidated financial statements have been prepared and presented on a basis assuming we continue as a going concern. During the years ended December 31, 2019 and 2018, and through March 31, 2020, we incurred losses from operations and net cash outflows from operating activities as disclosed in the condensed consolidated statements of operations and cash flows, respectively. As of March 31, 2020, we had an accumulated deficit of \$222.1 million and we expect to incur losses for the immediate future. To date, we have been funded primarily by various debt and equity financings, and although we believe that we will be able to successfully fund our operations, there can be no assurance that we will be able to do so or that we will ever operate profitably. These factors raise substantial doubt about our ability to continue as a going concern through the next twelve months.

We became a revenue generating company only after acquiring the Aquadex Business in August 2016. We expect to incur additional losses in the near-term as we grow the Aquadex Business, including investments in expanding our sales and marketing capabilities, purchasing inventory, manufacturing components, and complying with the requirements related to being a U.S. public company. To become and remain profitable, we must succeed in expanding the adoption and market acceptance of the Aquadex SmartFlow system. This will require us to succeed in training personnel at hospitals and in effectively and efficiently manufacturing, marketing and distributing the Aquadex SmartFlow system and related components. There can be no assurance that we will succeed in these activities, and we may never generate revenues sufficient to achieve profitability.

During 2018, 2019 and through May 5, 2020, we closed on registered direct and underwritten public equity offerings for net proceeds of approximately \$30.3 million after deducting the underwriting discounts and commissions and other costs associated with the offering. We will be required to seek additional funding to grow our Aquadex Business, which may not be available on terms favorable to us, or at all. We may receive those funds from the proceeds from future warrant exercises, issuances of equity securities, or other financing transactions. Should warrant exercises not materialize or future capital raising be unsuccessful, we may not be able to continue as a going concern. We have made no adjustments relating to the recoverability and classification of recorded asset amounts and classification of liabilities that might be necessary should we not continue as a going concern.

NEW ACCOUNTING PRONOUNCEMENTS

Information regarding new accounting pronouncements is included in Note 1 to the condensed consolidated financial statements included in this Quarterly Report.

FINANCIAL OVERVIEW

We are a medical device company focused on commercializing the Aquadex system for ultrafiltration treatment of patients with fluid overload who have failed diuretic therapy. Activities since inception have consisted principally of raising capital, performing research and development and conducting preclinical and clinical studies. During 2016, we acquired the Aquadex Business and announced that we were halting all clinical evaluations of our prior technology, the C-Pulse System. Since then, our activities have consisted mainly of expanding our sales and marketing capabilities and transferring manufacturing capabilities from Baxter to our facilities in Eden Prairie, Minnesota. As of March 31, 2020, we had an accumulated deficit of \$222.1 million and we expect to incur losses for the foreseeable future. To date, we have been funded by public and private equity financings and debt. Although we believe that we will be able to successfully fund our operations, there can be no assurance that we will be able to do so or that we will ever operate profitably.

Results of Operations

Comparison of Three Months Ended March 31, 2020 to Three Months Ended March 31, 2019

Net Sales

(in thousands)

Three Months Ended March 31, 2020	Three Months Ended March 31, 2019	Increase (Decrease)	% Change
\$ 1,630	\$ 1,215	\$ 415	34.2%

Revenue is generated mainly from the sale of disposable blood filters and catheters used in conjunction with the Aquadex system consoles. We sell primarily in the United States to hospitals and clinics through our direct salesforce. We sell outside of the United States to independent specialty distributors who in turn sell to hospitals and clinics in their geographic regions. The increase in sales is driven by execution of our commercialization strategy which includes continued expansion of our commercial footprint by the hiring of new sales representatives, clinical education specialists, and marketing personnel.

Costs and Expenses

Our costs and expenses were as follows:

(in thousands)

	Three Months Ended March 31, 2020	Three Months Ended March 31, 2019	Increase (Decrease)	% Change
Cost of goods sold	\$ 796	\$ 612	\$ 184	30.1%
Selling, general and administrative	\$ 4,537	\$ 4,018	\$ 519	12.9%
Research and development	\$ 864	\$ 1,310	\$ (446)	(34.0)%

Cost of Goods Sold

In the first quarter of 2019, we began selling our internally manufactured inventory, after successfully transitioning all manufacturing activities from Baxter during 2018. The improvement in gross margins in the first quarter of 2020, reflects the impact of increasing volumes and efficiencies achieved as we leverage our existing manufacturing infrastructure. In future quarters, we expect our gross margins will continue to improve as volumes increase and we achieve larger efficiencies of scale.

Selling, General and Administrative

The increase in selling, general and administrative expense reflect primarily on-going investment in our commercial organization as we continue to expand our outreach in the field with incremental clinical specialists and marketing support. Our general and administrative costs have remained consistent with the prior year. We expect that our selling expenses will increase modestly in future quarters as we annualize the impact of recent hires, and that general and administrative expenses will remain consistent to the current quarter.

Research and Development

The decrease in research and development expenses relate to investments we made to improve the functionality of our Aquadex system, and to support our 510(k) submission for pediatric label modification, which were completed during 2019. We expect that future research and development expenditures will remain consistent to the current quarter.

Liquidity and Capital Resources

Sources of Liquidity

We have funded our operations primarily through cash on hand and a series of equity and debt issuances.

On July 3, 2018, we closed on an underwritten public offering of 181,941 shares of common stock, for gross proceeds of \$5.4 million. Net proceeds totaled approximately \$4.6 million after deducting the underwriting discounts and commissions and other costs associated with the offering. See Note 4 – Equity, to the condensed consolidated financial statements included in Part I, Item 1 of this Quarterly Report on Form 10-Q.

On March 12, 2019, we closed on an underwritten public offering for net proceeds totaling approximately \$11.0 million after deducting the underwriting discounts and commissions and other costs associated with the offering, which included the full exercise of the underwriter's over-allotment option to purchase additional shares and warrants. In connection with this offering, we issued a total of 455,178 shares of common stock, approximately 1.9 million shares of Series G convertible preferred stock and warrants to purchase approximately 4.7 million shares of common stock. See Note 4 – Equity, to the condensed consolidated financial statements included in Part I, Item 1 of this Quarterly Report on Form 10-Q.

On October 25, 2019, we closed on a registered direct offering of common stock, for gross proceeds of approximately \$660,000, prior to deducting commissions and expenses related to the transaction. In a concurrent private placement, we agreed to issue to the investors in the registered direct offering unregistered warrants to purchase up to 575,830 shares of our common stock. See Note 4 – Equity, to the condensed consolidated financial statements included in Part I, Item 1 of this Quarterly Report on Form 10-Q.

On November 6, 2019, we closed on a registered direct offering of common stock, for gross proceeds of approximately \$1.36 million, prior to deducting commissions and expenses related to the transaction. In a concurrent private placement, we agreed to issue to the investors in the registered direct offering unregistered warrants to purchase up to 1,219,076 shares of our common stock. See Note 4 – Equity, to the condensed consolidated financial statements included in Part I, Item 1 of this Quarterly Report on Form 10-Q.

On January 28, 2020, we closed on an underwritten public offering of 6,046,367 shares of common stock, 11,517,269 shares of Series H Preferred Stock and warrants to purchase 17,563,636 shares of Common Stock, which included the full exercise of the underwriter’s over-allotment option, for gross proceeds of approximately \$9.7 million. Net proceeds totaled approximately \$8.6 million after deducting the underwriting discounts and commissions and other costs associated with the offering. See Note 4 – Equity, to the condensed consolidated financial statements included in Part I, Item 1 of this Quarterly Report on Form 10-Q.

On March 23, 2020, we closed on a registered direct offering of 4,161,392 shares of common stock at a price to the public of \$0.30 per share, for gross proceeds of approximately \$1.2 million, prior to deduction of commissions and offering expenses related to the transaction. In a concurrent private placement, we agreed to issue to the investors in the registered direct offering unregistered warrants to purchase up to 4,161,392 shares of the Company’s common stock. See Note 4 – Equity, to the condensed consolidated financial statements included in Part I, Item 1 of this Quarterly Report on Form 10-Q.

On April 1, 2020 we closed on a registered direct offering of 5,130,228 shares of common stock at a price to the public of \$0.434 per share, for gross proceeds of approximately \$2.2 million, prior to deduction of commissions and offering expenses payable related to the transaction. In a concurrent private placement, we agreed to issue to the investors in the registered direct offering unregistered warrants to purchase up to 2,565,114 shares of the Company’s common stock. The warrants to purchase up to 2,565,114 shares of common stock have an exercise price of \$0.3715 per share, are exercisable immediately, and expire five and a half years from the date of issuance. On April 29, 2020, we filed a registration statement to register the shares of common stock issuable upon exercise of the warrants that were issued on March 23, 2020 and April 1, 2020 and the registration statement was declared effective by the SEC on May 8, 2020. See Note 9 – Subsequent Events, to the condensed consolidated financial statements included in Part I, Item 1 of this Quarterly Report on Form 10-Q.

On May 5, 2020, we closed on a registered direct offering of 3,597,880 shares of common stock at a price to the public of \$0.4725 per share, for gross proceeds of approximately \$1.7 million, prior to deduction of commissions and offering related to the transaction. In a concurrent private placement, we agreed to issue to the investors in the registered direct offering unregistered warrants to purchase up to 1,798,940 shares of the Company’s common stock. The warrants have an exercise price of \$0.41 per share, are exercisable immediately, and will expire five and a half years from the date of issuance. We have agreed to file a registration statement registering the shares of common stock issuable upon exercise of the warrants within thirty days of the closing of the private placement. See Note 9 – Subsequent Events, to the condensed consolidated financial statements included in Part I, Item 1 of this Quarterly Report on Form 10-Q.

On August 5, 2016, we entered into a loan agreement with Silicon Valley Bank for proceeds of up to \$5.0 million, including a \$1.0 million revolving line of credit and a \$4.0 million term loan. The term loan expired unused on November 30, 2016 and the term loan is no longer available to be drawn. Under the revolving line, we were able to borrow the lesser of \$1 million or 80% of our eligible accounts (subject to customary exclusions), minus the outstanding principal balance of any advances under the revolving line. Advances under the revolving line, if any, would accrue interest at a floating per annum rate equal to 1.75% or 1.0% above the prime rate, depending on liquidity factors. The loan agreement contained customary representations, as well as customary affirmative and negative covenants. Our obligations under the loan agreement were secured by a security interest in our assets, excluding intellectual property and certain other exceptions. We were subject to a negative pledge covenant with respect to our intellectual property. Advances under the revolving line were subject to various conditions precedent, including our compliance with financial covenants relating to net liquidity relative to monthly cash burn. The revolving line of credit expired unused on March 31, 2020. We had no borrowings outstanding under this facility as of March 31, 2020 or December 31, 2019.

As of March 31, 2020, and December 31, 2019, cash and cash equivalents were \$5.7 million and \$1.3 million, respectively. Prior to our acquisition of the Aquadex Business in August 2016, we did not have a product approved for commercial sale and focused our resources on developing, manufacturing, and commercializing our C-Pulse System. Our business strategy and ability to fund our operations in the future depends in part on our ability to grow our Aquadex Business by establishing a sales force, selling our products to hospitals and other healthcare facilities and controlling costs. While we expect to continue to receive proceeds from the exercise of warrants, we will likely need to seek additional financing in the future, which, to date, has been through offerings of our equity. The disruption created by COVID-19 in our operations, our sales outlook, and the capital markets where we would seek such financing, have created uncertainty about our ability to access the capital markets in future periods.

Cash Flows from Operating Activities

Net cash used in operating activities was \$5.5 and \$4.9 million for the three months ended March 31, 2020 and 2019, respectively. The net cash used in each of these periods primarily reflects the net loss for those periods, offset in part by stock-based compensation, depreciation and amortization, and the effects of changes in operating assets and liabilities, mainly the reduction in outstanding payables and accrued expenses, as well as increases in raw materials and finished goods inventory.

Cash Flows from Investing Activities

Net cash used in investing activities was \$17,000 and \$41,000 for the three months ended March 31, 2020 and March 31, 2019, respectively. The cash used in investing activities was primarily for the purchase of manufacturing, laboratory and office equipment.

Cash Flows from Financing Activities

As described above, net cash provided by financing activities was \$9.9 and \$11.0 million for the three months ended March 31, 2020 and 2019, respectively.

Capital Resource Requirements

As of March 31, 2020, we did not have any material commitments for capital expenditures.

Off-Balance Sheet Arrangements

We have no off-balance sheet transactions, arrangements, obligations (including contingent obligations), or other relationships with unconsolidated entities or other persons that have, or may have, a material effect on our financial condition, changes in financial condition, revenues or expenses, results of operations, liquidity, capital expenditures or capital resources

Forward-Looking Statements and Risk Factors

Certain statements in this Quarterly Report on Form 10-Q are forward-looking statements within the meaning of the safe harbor provisions of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended (“Exchange Act”), that are based on management’s beliefs, assumptions and expectations and information currently available to management. All statements that address future operating performance, events or developments that we expect or anticipate will occur in the future are forward-looking statements, including without limitation, our expectations regarding the potential impacts of the COVID-19 pandemic on our business operations, cash flow, business development, and employees, our ability to execute on our strategic realignments, our post-market clinical data collection activities, benefits of our products to patients, our expectations with respect to product development and commercialization efforts, our ability to increase market and physician acceptance of our products, potentially competitive product offerings, the possibility that we may be unable to raise sufficient funds necessary for our anticipated operations, intellectual property protection, our ability to integrate acquired businesses, our expectations regarding anticipated synergies with and benefits from acquired businesses and other risks and uncertainties described in our filings with the SEC. In some cases, you can identify forward-looking statements by the following words: “anticipate,” “believe,” “continue,” “could,” “estimate,” “expect,” “intend,” “may,” “ongoing,” “plan,” “potential,” “predict,” “project,” “should,” “will,” “would” or the negative of these terms or other comparable terminology, although not all forward-looking statements contain these words. Management believes that these forward-looking statements are reasonable as and when made. However, you should not place undue reliance on forward-looking statements because they speak only as of the date when made. We undertake no obligation to revise any forward-looking statements in order to reflect events or circumstances that might subsequently arise. Forward-looking statements are subject to a number of risks and uncertainties that could cause actual events to adversely differ from the expectations indicated in these forward-looking statements, including without limitation, the risks and uncertainties described in our Annual Report on Form 10-K for the fiscal year ended December 31, 2019, in other reports filed thereafter with the SEC, which risk factors may be updated from time to time, and in this Quarterly Report on Form 10-Q for the quarter ended March 31, 2020. We operate in an evolving environment. New risk factors and uncertainties may emerge from time to time, and it is not possible for us to predict all risk factors and uncertainties. CHF Solutions may not actually achieve the plans, projections or expectations disclosed in forward-looking statements, and actual results, developments or events could differ materially from those disclosed in the forward-looking statements. Forward-looking statements are subject to a number of risks and uncertainties, including without limitation, the possibility that regulatory authorities do not accept our application or approve the marketing of our products, the possibility we may be unable to raise the funds necessary for the development and commercialization of our products, and those described in our filings with the SEC.

ITEM 3. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

Not applicable.

ITEM 4. CONTROLS AND PROCEDURES

Evaluation of Disclosure Controls and Procedures

We maintain disclosure controls and procedures that are designed to ensure that information required to be disclosed in our Exchange Act reports is recorded, processed, summarized and reported within the time periods specified in the SEC rules and forms and that such information is accumulated and communicated to our management, including our Chief Executive Officer and Chief Financial Officer (together, the “Certifying Officers”), as appropriate, to allow for timely decisions regarding required disclosure.

In designing and evaluating disclosure controls and procedures, management recognizes that any controls and procedures, no matter how well designed and operated, can provide only reasonable, not absolute, assurance of achieving the desired objectives. Also, the design of a control system must reflect the fact that there are resource constraints and the benefits of controls must be considered relative to their costs. Because of the inherent limitations in all control systems, no evaluation of controls can provide absolute assurance that misstatements due to error or fraud will not occur or that all control issues and instances of fraud, if any, have been detected. These inherent limitations include the realities that judgments in decision-making can be faulty and that breakdowns can occur because of simple error or mistake. The design of any system of controls is based, in part, upon certain assumptions about the likelihood of future events and there can be no assurance that any design will succeed in achieving its stated goals under all potential future conditions.

As of March 31, 2020, the end of the period covered by this report, we conducted an evaluation, under the supervision and with the participation of management, including the Certifying Officers, of the effectiveness of the design and operation of our disclosure controls and procedures as defined in Rules 13a-15(e) and 15d-15(e) of the Securities Exchange Act of 1934, as amended (the “Exchange Act”). Our disclosure controls and procedures are designed to provide reasonable assurance of achieving their stated objectives. Based on their evaluation, our Chief Executive Officer and Chief Financial Officer concluded that our disclosure controls and procedures were effective at a reasonable assurance level as of March 31, 2020.

Changes in Internal Controls over Financial Reporting

There was no change in our internal control over financial reporting during our most recently completed fiscal quarter 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

We are not currently subject to any material legal proceedings.

ITEM 1A. RISK FACTORS

You should carefully consider the risks and uncertainties we describe in our Annual Report on Form 10-K for the fiscal year ended December 31, 2019, and in other reports filed thereafter with the SEC, before deciding to invest in or retain shares of our common stock. We do not believe there are any material changes to the risk factors discussed in Item 1A. “Risk Factors” in our Annual Report on Form 10-K for the fiscal year ended December 31, 2019, except as set forth below.

Risk Related to our Common Stock

Nasdaq may delist our common stock from its exchange which could limit your ability to make transactions in our securities and subject us to additional trading restrictions.

On December 17, 2019, we received a letter (the “Notice”) from Nasdaq advising that for 30 consecutive trading days preceding the date of the Notice, the bid price of our common stock had closed below the \$1.00 per share minimum required for continued listing on the Nasdaq Capital Market pursuant to Nasdaq Listing Rule 5550(a)(2) (the “Minimum Bid Price Requirement”). The Notice has no effect on the listing of our common stock at this time, and our common stock continues to trade on the Nasdaq Capital Market under the symbol “CHFS.” Under Nasdaq Listing Rule 5810(c)(3)(A), if during the 180 calendar day period following the date of the Notice (the “Compliance Period”), the closing bid price of our common stock is at or above \$1.00 for a minimum of 10 consecutive business days, we will regain compliance with the Minimum Bid Price Requirement and our common stock will continue to be eligible for listing on the Nasdaq Capital Market, absent noncompliance with any other requirement for continued listing. If we do not regain compliance with the Minimum Bid Price Requirement by the end of the Compliance Period (or the Compliance Period as may be extended) the Company’s common stock will be subject to delisting. We intend to monitor the closing bid price of our common stock and may, if appropriate, consider implementing available options to regain compliance with the Minimum Bid Price Requirement under the Nasdaq Listing Rules.

On April 17, 2020, Nasdaq notified us that the 180-day period to regain compliance with the Minimum Bid Price Rule has been extended due to the global market impact caused by COVID-19. More specifically, Nasdaq has stated that the compliance periods for any company previously notified about non-compliance are suspended effective April 16, 2020, until June 30, 2020. On July 1, 2020, companies will receive the balance of any pending compliance period exception to regain compliance with the Minimum Bid Price Rule. As a result of this extension, we now have until August 28, 2020 to regain compliance with the Minimum Bid Price Requirement.

Additionally, Nasdaq has the authority, pursuant to Nasdaq Listing Rule 5550(b)(1), to delist our common stock if our stockholders' equity falls below \$2.5 million. As of December 31, 2019, our stockholders' equity was \$2.0 million, which is below Nasdaq's stockholders' equity requirement. Subsequent to year end, on January 28, 2020, we closed on an underwritten public offering for net proceeds of approximately \$8.6 million, which effectively allows us to regain compliance with Nasdaq's minimum equity requirements. It is possible that our stockholders' equity could be reduced again below \$2.5 million as a result of operating losses or other reasons. If that occurs, or if we are unable to demonstrate to Nasdaq's satisfaction that we will be able to sustain compliance with this requirement, Nasdaq may delist our common stock. In addition, even if we regain technical compliance with the stockholders' equity requirement, we will have to continue to meet other objective and subjective listing requirements to continue to be listed on the Nasdaq Capital Market. We are actively monitoring our stockholders' equity and will consider any and all options available to us to maintain compliance. There can be no assurance, however, that we will be able to maintain compliance and meet Nasdaq's minimum stockholders' equity requirements.

If our common stock is delisted, our common stock would likely then trade only in the over-the-counter market. If our common stock were to trade on the over-the-counter market, selling our common stock could be more difficult because smaller quantities of shares would likely be bought and sold, transactions could be delayed, and we could face significant material adverse consequences, including: a limited availability of market quotations for our securities; reduced liquidity with respect to our securities; a determination that our shares are a "penny stock," which will require brokers trading in our securities to adhere to more stringent rules, possibly resulting in a reduced level of trading activity in the secondary trading market for our securities; a reduced amount of news and analyst coverage for our Company; and a decreased ability to issue additional securities or obtain additional financing in the future. These factors could result in lower prices and larger spreads in the bid and ask prices for our common stock and would substantially impair our ability to raise additional funds and could result in a loss of institutional investor interest and fewer development opportunities for us.

In addition to the foregoing, if our common stock is delisted from Nasdaq and it trades on the over-the-counter market, the application of the "penny stock" rules could adversely affect the market price of our common stock and increase the transaction costs to sell those shares. The SEC has adopted regulations which generally define a "penny stock" as an equity security that has a market price of less than \$5.00 per share, subject to specific exemptions. If our common stock is delisted from Nasdaq and it trades on the over-the-counter market at a price of less than \$5.00 per share, our common stock would be considered a penny stock. The SEC's penny stock rules require a broker-dealer, before a transaction in a penny stock not otherwise exempt from the rules, to deliver a standardized risk disclosure document that provides information about penny stocks and the risks in the penny stock market. The broker-dealer must also provide the customer with current bid and offer quotations for the penny stock, the compensation of the broker-dealer and the salesperson in the transaction, and monthly account statements showing the market value of each penny stock held in the customer's account. In addition, the penny stock rules generally require that before a transaction in a penny stock occurs, the broker-dealer must make a special written determination that the penny stock is a suitable investment for the purchaser and receive the purchaser's agreement to the transaction. If applicable in the future, these rules may restrict the ability of brokers-dealers to sell our common stock and may affect the ability of investors to sell their shares, until our common stock no longer is considered a penny stock.

Risk Related to Our Business

The COVID-19 outbreak and other public health threats or outbreaks of communicable diseases could have a material adverse effect on our operations and overall financial performance.

We may face risks related to public health threats or outbreaks of communicable diseases. A global health crisis, such as the current outbreak of coronavirus or COVID-19, could adversely affect the United States and global economies and limit the ability of enterprises to conduct business for an indefinite period of time. The current outbreak of COVID-19 has negatively impacted the global economy, disrupted financial markets and international trade, resulted in increased unemployment levels, significantly impacted global supply chains. The resulting impact of the COVID-19 outbreak has created disruptions in our operations resulting from rapid and evolving changes implemented to keep our customers, their patients, and our employees safe. These changes included restrictions on hospital access imposed on our employees by customers dealing in the front lines of COVID-19, changes to employees work practices by requiring employees to work remotely and ensuring the safety of those employees that remained on site. The extent of the impact of the COVID-19 outbreak on our operational and financial performance will depend on certain developments, including the duration and spread of the outbreak, impact on our customers and our sales cycles, employee or industry events, and effect on our vendors, all of which are uncertain and cannot be predicted.

In addition, government authorities have implemented various mitigation measures, including travel restrictions, limitations on business operations, stay-at-home orders and social distancing protocols. While we have been deemed an essential critical infrastructure by the United States, the economic impact of the aforementioned actions may impair our ability to sustain sufficient financial liquidity and impact our financial results. Specifically, the continued spread of COVID-19 and efforts to contain the virus could: (i) decrease or delay customer demand and spending; (ii) result in an increase in costs related to delayed payments from customers and uncollectable accounts; (iii) cause difficulties or changes to our sales process and customer support; (iv) cause delays and disruptions in the supply chain or production; (v) cause staffing disruptions and shortages, including finding qualified personnel; (vi) limit our ability to access the capital markets in future periods; and (vii) cause other unpredictable events.

As we cannot predict the duration or scope of the global health crisis, the anticipated negative financial impact to our financial condition or results of operation is uncertain and cannot be reasonably estimated but could be material and last for an extended period of time.

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

All unregistered sales of equity securities during the period covered by this report were reported on a previous current report on Form 8-K.

ITEM 3. DEFAULTS UPON SENIOR SECURITIES

Not applicable.

ITEM 4. MINE SAFETY DISCLOSURES

Not applicable.

ITEM 5. OTHER INFORMATION

None.

ITEM 6. EXHIBITS

The exhibits filed as part of this Quarterly Report on Form 10-Q are listed in the Exhibit Index below.

Exhibit Index
CHF Solutions, Inc.
Form 10-Q for the Quarterly Period Ended March 31, 2020

Exhibit Number	Exhibit Description	Incorporated By Reference			Exhibit Number	Filed Herewith	Furnished Herewith
		Form	File Number	Date of First Filing			
3.1	Fourth Amended and Restated Certificate of Incorporation	10	001-35312	February 1, 2012	3.1		
3.2	Certificate of Amendment to the Fourth Amended and Restated Certificate of Incorporation	8-K	001-35312	January 13, 2017	3.1		
3.3	Certificate of Amendment to the Fourth Amended and Restated Certificate of Incorporation	8-K	001-35312	May 23, 2017	3.1		
3.4	Certificate of Amendment to the Fourth Amended and Restated Certificate of Incorporation	8-K	001-35312	October 12, 2017	3.1		
3.5	Form of Certificate of Designation of Series A Junior Participating Preferred Stock	8-K	001-35312	June 14, 2013	3.1		
3.6	Form of Certificate of Designation of Preferences, Rights and Limitations of Series F Convertible Preferred Stock	S-1/A	333-221010	November 17, 2017	3.7		
3.7	Certificate of Amendment to Fourth Amended and Restated Certificate of Incorporation, as amended, of CHF Solutions, Inc	8-K	001-35312	January 2, 2019	3.1		
3.8	Certificate of Designation of Preferences, Rights and Limitations of Series G Convertible Preferred Stock	8-K	001-35312	March 13, 2019	3.9		
3.9	Certificate of Designation of Preferences, Rights and Limitations of Series H Convertible Preferred Stock	8-K	001-35312	January 29, 2020	3.1		
3.10	Second Amended and Restated Bylaws	8-K	001-35312	May 23, 2017	3.2		
4.1	Form of Common Stock Purchase Warrant	S-1/A	333-235385	January 23, 2020	4.15		
4.2	Form of Common Stock Purchase Warrant	8-K	001-35312	March 20, 2020	4.1		
4.3	Form of Common Stock Purchase Warrant	8-K	001-35312	March 30, 2020	4.1		

Exhibit Number	Exhibit Description	Incorporated By Reference			Exhibit Number	Filed Herewith	Furnished Herewith
		Form	File Number	Date of First Filing			
10.1	Warrant Agency Agreement, dated as of January 24, 2020, by and between the Company and American Stock Transfer & Trust Company, LLC.	8-K	001-35312	January 29, 2020	4.2		
10.2	Underwriting Agreement, dated as of January 24, by and between the Company and Ladenburg Thalmann & Co. Inc.	8-K	001-35312	January 29, 2020	1.1		
10.3	Placement Agency Agreement, dated as of March 19, 2020, by and between the Company and Ladenburg Thalmann & Co. Inc.	8-K	001-35312	March 20, 2020	1.1		
10.4	Form of Securities Purchase Agreement, dated as of March 19, 2020, by and among CHF Solutions, Inc. and the purchasers identified on the signature pages thereto	8-K	001-35312	March 20, 2020	10.1		
10.5	Placement Agency Agreement, dated as of March 30, 2020, by and between the Company and Ladenburg Thalmann & Co. Inc.	8-K	001-35312	March 30, 2020	1.1		
10.6	Form of Securities Purchase Agreement, dated as of March 30, 2020, by and among CHF Solutions, Inc. and the purchasers identified on the signature pages thereto	8-K	001-35312	March 30, 2020	10.1		
31.1	Certification of Chief Executive Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002					X	
31.2	Certification of Chief Financial Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002					X	
32.1	Certification of Chief Executive Officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002						X
32.2	Certification of Chief Financial Officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002						X
101.INS	XBRL Instance Document					X	
101.SCH	XBRL Taxonomy Extension Schema Document					X	
101.CAL	XBRL Taxonomy Extension Calculation Linkbase Document					X	

Exhibit Number	Exhibit Description	Incorporated By Reference			Exhibit Number	Filed Herewith	Furnished Herewith
		Form	File Number	Date of First Filing			
101.DEF	XBRL Taxonomy Extension Definition Linkbase Document					X	
101.LAB	XBRL Taxonomy Extension Label Linkbase Document					X	
101.PRE	XBRL Taxonomy Extension Presentation Linkbase Document					X	

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.

CHF Solutions, Inc.

Date: May 14, 2020

By: /s/ John L. Erb
John L. Erb
Chief Executive Officer and Chairman of the
Board
(principal executive officer)

Date: May 14, 2020

By: /s/ Claudia Drayton
Claudia Drayton
Chief Financial Officer
(principal financial officer)

CHIEF EXECUTIVE OFFICER'S 302 CERTIFICATION

I, John L. Erb, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of CHF Solutions, Inc. for the quarterly period ended March 31, 2020;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: May 14, 2020

/s/ John L. Erb

John L. Erb

Chief Executive Officer

CHIEF FINANCIAL OFFICER'S 302 CERTIFICATION

I, Claudia Drayton, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of CHF Solutions, Inc. for the quarterly period ended March 31, 2020.
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: May 14, 2020

/s/ Claudia Drayton
Claudia Drayton
Chief Financial Officer

**CERTIFICATION PURSUANT TO
18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002**

In connection with the Quarterly Report of CHF Solutions, Inc. (the "**Company**") on Form 10-Q for the quarterly period ended March 31, 2020, as filed with the Securities and Exchange Commission on the date hereof (the "**Report**"), I, John L. Erb, Chief Executive Officer of the Company, certify, pursuant to 18 U.S.C. § 1350, as adopted pursuant to § 906 of the Sarbanes-Oxley Act of 2002, that:

- (1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
- (2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: May 14, 2020

/s/ John L. Erb
John L. Erb
Chief Executive Officer

**CERTIFICATION PURSUANT TO
18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002**

In connection with the Quarterly Report of CHF Solutions, Inc. (the "**Company**") on Form 10-Q for the quarterly period ended March 31, 2020, as filed with the Securities and Exchange Commission on the date hereof (the "**Report**"), I, Claudia Drayton, Chief Financial Officer of the Company, certify, pursuant to 18 U.S.C. § 1350, as adopted pursuant to § 906 of the Sarbanes-Oxley Act of 2002, that:

- (1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
- (2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: May 14, 2020

/s/ Claudia Drayton

Claudia Drayton
Chief Financial Officer