NEWS RELEASE
NASDAQ, TSX: NVCN

Neovasc Announces First Quarter 2019 Financial Results

Recent Highlights

- Announced the 1,000th recipient of a Neovasc Reducer™ ("Reducer") implant
- Company sponsored Reducer Symposium attended by over 100 attendees at the 85th Annual Conference of the German Society of Cardiology ("DGK")
- Completed the conceptual work for the TF/TS Tiara™ ("Tiara") system; planning to initiate a small clinical feasibility study by end of 2020
- Resolved the last active litigation matter involving the Company

VANCOUVER, BC – May 9, 2019 -- Neovasc, Inc. ("Neovasc" or the "Company") (NASDAQ, TSX: NVCN), a leader in the development of minimally invasive transcatheter mitral valve replacement technologies and in the development of minimally invasive devices for the treatment of refractory angina, today reported financial results for the first quarter ended March 31, 2019.

"As our Tiara and Reducer programs continue to build momentum in 2019, the data collected for these two innovative technologies have gained ever increasing attention among the medical community, including at several international cardiology conferences and a number of peer reviewed journals," said Fred Colen, President and Chief Executive Officer of Neovasc. "We recently announced the 1,000th recipient of a Reducer implant. This is a significant milestone for the Reducer program, which we were able to achieve due to the support of leading cardiologists from across the globe. The impact of their support was on display recently at a symposium we coordinated at the annual conference for DGK, which drew in more than 100 attendees and had several key opinion leaders discussing real-world Reducer cases, as well as various clinical data that has been collected for the Reducer. We believe that the Reducer is well on its way to being considered a leading therapy for refractory angina."

"We have actively defended our IP in the EU and the U.S., and recently cleared all previously outstanding litigation claims. This includes the German Appeals court decision to overturn the lower court's decision, and as a result grant Neovasc the full and exclusive patent rights for one of our basic Tiara patents in Europe." concluded Mr. Colen.

The Tiara Mitral Valve

As of May 9, 2019, 73 patients have been treated with Tiara, including 24 patients in the TIARA-I Early Feasibility Clinical Study, 27 patients in the TIARA-II CE Mark Clinical Study and 22 patients under compassionate use cases. Neovasc believes that early results have been encouraging. The 30-day survival rate for the 70 patients treated with the Tiara (i.e. those treated more than 30 days ago) is 89% with one patient now over five years post implant. The Tiara has successfully treated both functional and degenerative Mitral Regurgitation patients, as well as patients with pre-existing prosthetic aortic valves and mitral surgical annuloplasty rings.

The Company received approval in Germany and the United Kingdom to proceed with Phase 2 of the TIARA-II study for its Tiara. Neovasc has 18 active TIARA-II clinical study sites across Germany, Italy, Israel, Spain, and the UK with additional sites being activated in Germany and The Netherlands. This will bring the total number of clinical sites in the TIARA-II study to 20 sites, which is the maximum approved number of sites overall. The Company continues to conduct pre-/post-implant analysis to review the overall screening criteria. Additional field clinical engineering support has also been established in Europe to provide patient screening and case support. The Company believes that it is on track to submit the Tiara for CE Mark approval in late 2020, pending the outcome of the TIARA-I and TIARA-II studies.

The Transfemoral Trans-septal ("TF/TS") Tiara system

Neovasc's R&D team completed TF/TS Tiara system conceptual work at the end of the first quarter of 2019. The development program is based on a concept that allows for a very controlled and predictable implantation

procedure similar to our Tiara transapical program. Through numerous evaluations within in vitro test methods, including system trackability, deployment accuracy, and hydrodynamic assessment, as well as four small acute animal trials, the team has narrowed down to two concepts that are showing strong potential. The Company is initiating a small clinical feasibility study with the TF/TS program, which is on track to begin in late 2020.

As a future option, the Company is also developing the concept of full retrievability, up to the final point of valve release by the delivery system, for the Tiara system.

The Reducer
Reducer revenue increased 72% to $585,793 for the three months ended March 31, 2019, compared to the same period in 2018, making it the highest quarterly revenue ever for the Reducer. Building on this current sales momentum for the Reducer, the Company recently implemented a broader commercialization and therapy development approach in the EU and Middle East. To support this expanded strategy, Neovasc plans to continue expanding its direct sales force in Germany to four sales reps from one. The Company has also experienced increased demand from other European countries, where it sells via distributors. Neovasc is seeking to grow Reducer revenue by about 50% in 2019 over actual revenue reported for 2018.

Global recognition for the Reducer continues to increase throughout the cardiology community as a result of the growing data portfolio on the device that has been published in peer reviewed articles and in presentations at medical conferences. In March 2019, the Company reported the Reducer was featured in a “live case” broadcast to more than 3000 participants at the Cardiovascular Research Technologies (CRT) meeting in Washington D.C. The successful live case was performed by Dr Giannini at Maria Cecilia Hospital in Cotignola, Italy.

The REDUCER-I post-market observational study has enrolled 199 of 400 patients across Europe at 21 active centers. Data from this study, the COSIRA study, as well as published data from several physician-initiated studies continues to reflect the very positive safety profile and improvements in a patient’s refractory angina, therefore improving the patient’s quality of life following Reducer implantation.

Results for the three month periods ended March 31, 2019 and 2018

Revenues
Revenues increased 72% to $585,793 for the three months ended March 31, 2019, compared to revenues of $339,922 for the same period in 2018 as the Company continues its commercialization strategies.

Cost of Goods Sold
The cost of goods sold for the three months ended March 31, 2019 was $143,994 compared to $87,393 for the same period in 2018. The overall gross margin for the three months ended March 31, 2019 was 75%, compared to 74% gross margin for the same period in 2018.

Expenses
Total expenses for the three months ended March 31, 2019 were $7,289,127 compared to $6,755,420 for 2018, representing an increase of $533,707 or 8%. The increase in total expenses for the three months ended March 31, 2019 compared to 2018 can be substantially explained by a $915,919 increase in non-cash stock based compensation charges, a $54,244 increase in non-cash deprecation and a $127,095 non-cash charge for accretion on collaboration, license and settlement agreements provision, offset by a $576,364 decrease in employee termination expenses as the Company completed a reduction in staff in the first quarter of 2018. Other expenses increased by $12,813 as the Company continues to preserve capital where possible while still advancing the commercialization and development of its products.

Selling expenses for the three months ended March 31, 2019 were $368,233, compared to $286,938 for 2018, representing an increase of $81,295 or 28%. The increase in selling expenses for the three months ended March 31, 2019 compared to 2018 reflects an increase in costs incurred for commercialization activities related to the Reducer. The Company continues to minimize its selling expenses as the cash resources of the Company are still limited.

General and administrative expenses for the three months ended March 31, 2019 were $2,680,931, compared to $2,469,091 for 2018, representing an increase of $211,840 or 9%. The increase in general and administrative expenses for the three months ended March 31, 2019 compared to 2018 can be substantially

explained by a $516,933 increase in non-cash stock based compensation charges and a $127,095 non-cash charge for accretion on collaboration, license and settlement agreements provision, offset by $576,364 decrease in employee termination expenses as the Company completed a reduction in staff in the first quarter of 2018.

Product development and clinical trial expenses for the three months ended March 31, 2019 were $4,239,963 compared to $3,999,391 for 2018, representing an increase of $240,572 or 6%. The increase in product development and clinical trial expenses for the three months ended March 31, 2019 can be substantially explained by the increase of $374,399 in non-cash stock based compensation charges.

The Company's expenses are subject to inflation and cost increases. The Company has not seen a material increase in the price of any of the components used in the manufacture of its products and services.

Other Income and Loss
The other loss for the three months ended March 31, 2019 was $1,804,417 compared to other loss of $49,324,003 for 2018, a decrease of $47,519,586. The decrease in the other loss can be substantially explained by the accounting treatment of the November 2017 public offering and concurrent private placement (the "2017 Financings").

Losses
The losses and comprehensive losses for the three months ended March 31, 2019 were $8,615,375 and $7,918,822, respectively, or $0.21 basic and diluted loss per share, as compared with losses and comprehensive losses of $55,880,548 and $55,466,915, respectively, or $0.38 basic and diluted loss per share, for the same period in 2018. The decrease in the comprehensive loss incurred for the three months ended March 31, 2019 compared to the same period in 2018 can be substantially explained by a decrease in other losses, due to the accounting treatment of the 2017 Financings.

Discussion of Liquidity and Capital Resources
Neovasc finances its operations and capital expenditures with cash generated from operations and through equity and debt financings. As at March 31, 2019 the Company had cash and cash equivalents of $12,115,455 compared to cash and cash equivalents of $9,242,809 as at December 31, 2018.

The Company's independent registered public accounting firm has included a "going concern" emphasis of matter paragraph in its report on our audited consolidated financial statements as at and for the years ended December 31, 2018, 2017 and 2016. The Company will require significant additional financing in order to continue to operate its business. Given the current nature of the Company's capital structure, there can be no assurance that such financing will be available on favorable terms, or at all.

As of March 31, 2019, the Company is in a positive working capital position of $8,493,278, with current assets of $13,768,048 and current liabilities of $5,274,770. The Company will require additional working capital in order to continue to operate its business and there can be no assurance that such additional working capital will be available on favorable terms, or at all.

Cash used in operating activities for the three months ended March 31, 2019 was $6,266,823, compared to $5,245,425 for the same period in 2018. For the three months ended March 31, 2019, operating activities were $5,454,385, compared to $5,909,597 for the same period in 2018, a decrease of $455,212 as the Company continues to preserve capital where possible while still advancing the commercialization and development of its products. Net cash outflow from the net change in non-cash working capital items for the three months ended March 31, 2019 was $883,938, compared to net cash inflow of $691,591 in the same period in 2018. The increase in net cash outflow can be attributed to the payment of amounts due on collaboration, license and settlement agreements as the Company made its first payment to Endovalve.

Net cash applied to investing activities for the three months ended March 31, 2019 was $53,662 compared to net cash applied to investing activities of $17,162 for the same period in 2017, primarily due to the increase in expenditure on property, plant and equipment.

During the three months ended March 31, 2019, the Company received net proceeds of $1,200,400 from the exercise of Series C Warrants and net proceeds of $8,118,030 from the completion of two $5 million underwritten public offerings in February and March.

Outstanding Share Data
As of May 9, 2019, the Company had 67,475,883 Common Shares issued and outstanding. The following securities are convertible into Common Shares: 9,333,632 stock options with a weighted average exercise price of $2.90, 1,444,444 Broker Warrants with an exercise price of $0.5625 and $8,890,000 principal amount of senior secured convertible notes issued pursuant to the 2017 Financings (the "Notes"), which Notes could convert into 19,755,556 Common Shares (not taking into account the alternate conversion price or anti-dilution mechanisms). Our fully diluted share capital as of the same date is 98,009,515. Our fully diluted share capital, adjusted on the assumption that all of the outstanding Notes are converted using the alternate conversion price at the closing price on May 8, 2019, is 98,597,906.

For description of the terms of the Notes issued pursuant to the 2017 Financings, see the form of Note previously filed on SEDAR and with the SEC on Form 6-K. For a description of the risks associated with the Notes issued pursuant to the 2017 Financings, the amount of such securities exercised or converted to date, the dilution to date caused by such exercises and conversions, and the potential dilution in the future due to such exercises and conversions, see the Company's Annual Report on Form 20-F and Management's Discussion and Analysis for the three months ended March 31, 2019, which are available on SEDAR at www.sedar.com and as filed or furnished with the SEC at www.sec.gov.

The Company prepares its consolidated financial statements in accordance with International Financial Reporting Standards, as issued by the International Accounting Standards Board.

Neovasc's Management's Discussion and Analysis and Condensed Interim Consolidated Financial Statements and related notes for the three months ended March 31, 2019 are posted on the Company's website at www.neovasc.com and were filed on SEDAR and with the SEC. In addition to the summary contained herein, readers are encouraged to review the full disclosure in these documents.

Conference Call and Webcast information
Neovasc will be hosting a conference call today at 4:30 pm ET to discuss these results. To participate in the conference call, please dial 877-407-9208 (domestic) or 201-493-6784 (international) and use passcode 13689510#.

A link to the live and archived audio webcast of the conference call will also be available on the Presentations and Events page of the Investors section of Neovasc's website at www.neovasc.com until August 9, 2019.

About Neovasc Inc.
Neovasc is a specialty medical device company that develops, manufactures and markets products for the rapidly growing cardiovascular marketplace. Its products include the Reducer, for the treatment of refractory angina, which is not currently commercially available in the United States and has been commercially available in Europe since 2015, and the Tiara, for the transcatheter treatment of mitral valve disease, which is currently under clinical investigation in the United States, Canada and Europe. For more information, visit: www.neovasc.com.

Forward Looking Statements
This news release contains forward-looking statements within the meaning of the U.S. Private Securities Litigation Reform Act of 1995 and applicable Canadian securities laws regarding the plan to initiate a small clinical feasibility study by the end of 2020 for the TF/TS Tiara system, increasing attention among the medical community regarding the Company' products, beliefs as to the Reducer being considered a leading therapy for refractory angina, beliefs as to the early results of the TIARA-II CE Mark Clinical Study being encouraging, beliefs as to the Company being on track to submit the Tiara for CE Mark approval in late 2020, plans to develop the full retrievability of the Tiara, plans to continue expanding the Company's direct sales force in Germany to four reps, global recognition for the Reducer continuing to increase throughout the cardiology community, the Company continuing to minimize its selling expenses, and the growing of the cardiovascular marketplace. Words and phrases such as "believes", "may", "expects", "can", "could", "scheduled", "plans" and "will", and similar words or expressions, are intended to identify these forward-looking statements. Forward-looking statements are based on estimates and assumptions made by the Company in light of its experience and its perception of historical trends, current conditions and expected future developments, as well as other factors that the Company believes are appropriate in the circumstances. Many factors and assumptions could cause the Company's actual results, performance or achievements to differ materially from those expressed or implied by the forward-looking statements, including, without limitation, the substantial doubt about the Company's ability to continue as a going concern; risks relating to the Notes issued pursuant to the 2017 Financings, resulting in significant dilution to the Company's shareholders; risks relating to the Company's need for significant additional future capital and the Company's ability to raise additional funding; risks relating to cashless exercise and adjustment provisions in the Notes issued pursuant to the 2017 Financings, which could make it more difficult and expensive for the Company to raise additional capital in the future and result in further dilution to investors; risks relating to the sale of a significant number of common shares of the Company; risks relating to the conversion of Notes issued pursuant to the 2017 Financings, which may encourage short sales by third parties; risks relating to the possibility that the Company's common shares may be delisted from the Nasdaq Capital Market or the Toronto Stock Exchange, which could affect their market price and liquidity; risks relating to the Company's conclusion that it did not have effective internal control over financial reporting as at December 31, 2018; risks relating to the Company's common share price being volatile; risks relating to the influence of significant

shareholders of the Company over the Company's business operations and share price; risks relating to the Company's significant indebtedness, and its effect on the Company's financial condition; risks relating to claims by third parties alleging infringement of their intellectual property rights; risks relating to lawsuits that the Company is subject to, which could divert the Company's resources and result in the payment of significant damages and other remedies; the Company's ability to establish, maintain and defend intellectual property rights in the Company's products; risks relating to results from clinical trials of the Company's products, which may be unfavorable or perceived as unfavorable; the Company's history of losses and significant accumulated deficit; risks associated with product liability claims, insurance and recalls; risks relating to use of the Company's products in unapproved circumstances, which could expose the Company to liabilities; risks relating to competition in the medical device industry, including the risk that one or more of the Company's competitors may develop more effective or more affordable products; risks relating to the Company's ability to achieve or maintain expected levels of market acceptance for the Company's products, as well as the Company's ability to successfully build its in-house sales capabilities or secure third-party marketing or distribution partners; the Company's ability to convince public payors and hospitals to include the Company's products on their approved products lists; risks relating to new legislation, new regulatory requirements and the efforts of governmental and third-party payors to contain or reduce the costs of healthcare; risks relating to increased regulation, enforcement and inspections of participants in the medical device industry, including frequent government investigations into marketing and other business practices; risks associated with the extensive regulation of the Company's products and trials by governmental authorities, as well as the cost and time delays associated therewith; risks associated with post-market regulation of the Company's products; health and safety risks associated with the Company's products and industry; risks associated with the Company's manufacturing operations, including the regulation of the Company's manufacturing processes by governmental authorities and the availability of two critical components of the Reducer; risk of animal disease associated with the use of the Company's products; risks relating to the manufacturing capacity of third-party manufacturers for the Company's products, including risks of supply interruptions impacting the Company's ability to manufacture its own products; risks relating to the Company's dependence on limited products for substantially all of the Company's current revenues; risks relating to the Company's exposure to adverse movements in foreign currency exchange rates; risks relating to the possibility that the Company could lose its foreign private issuer status under U.S. federal securities laws; risks relating to breaches of anti-bribery laws by the Company's employees or agents; risks associated with future changes in financial accounting standards and new accounting pronouncements; risks relating to the Company's dependence upon key personnel to achieve its business objectives; the Company's ability to maintain strong relationships with physicians; risks relating to the sufficiency of the Company's management systems and resources in periods of significant growth; risks associated with consolidation in the health care industry, including the downward pressure on product pricing and the growing need to be selected by larger customers in order to make sales to their members or participants; risks relating to the Company's ability to successfully identify and complete corporate transactions on favorable terms or achieve anticipated synergies relating to any acquisitions or alliances; risks relating to the Company's ability to successfully enter into fundamental transactions as defined in the Notes issued pursuant to the 2017 Financings; anti-takeover provisions in the Company's constating documents which could discourage a third party from making a takeover bid beneficial to the Company's shareholders; and risks relating to conflicts of interests among the Company's officers and directors as a result of their involvement with other issuers. These risk factors and others relating to the Company are discussed in greater detail in the "Risk Factors" section of the Company's Annual Report on Form 20-F and in the Management's Discussion and Analysis for the three months ended March 31, 2019 (copies of which may be obtained at www.sedar.com or www.sec.gov). The Company has no intention and undertakes no obligation to update or revise any forward-looking statements beyond required periodic filings with securities regulators, whether as a result of new information, future events or otherwise, except as required by law.

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NEOVASC INC.

Consolidated Statements of Financial Position
As at March 31,
(Expressed in U.S. dollars)

		March 31, 2019		December 31, 2018
ASSETS				
Current assets				
Cash and cash equivalents	**$**	**12,115,455**	$	9,242,809
Accounts receivable		**720,022**		647,143
Inventory		**467,266**		258,742
Prepaid expenses and other assets		**465,305**		591,236
Total current assets		**13,768,048**		10,739,930
Non-current assets				
Restricted cash		**449,084**		439,736
Right-of-use asset		**1,081,399**		-
Property, plant and equipment		**793,105**		813,628
Total non-current assets		**2,323,588**		1,253,364
Total assets	**$**	**16,091,636**	$	11,993,294
LIABILITIES AND EQUITY				
Liabilities				
Current liabilities				
Accounts payable and accrued liabilities	**$**	**4,144,908**	$	4,610,560
Lease liabilities		**403,191**		-
Convertible Note		**726,671**		1,423,224
Total current liabilities		**5,274,770**		6,033,784
Non-Current Liabilities				
Accrued liabilities		**2,335,756**		2,241,979
Lease liabilities		**759,797**		-
Convertible Note		**10,526,999**		13,194,112
Derivative warrant liability from financing		**-**		190,303
Total non-current liabilities		**13,622,552**		15,626,394
Total liabilities	**$**	**18,897,322**	$	21,660,178
Equity				
Share capital	**$**	**317,888,794**	$	304,460,533
Contributed surplus		**27,612,565**		26,260,806
Accumulated other comprehensive loss		**(6,956,475)**		(7,653,028)
Deficit		**(341,350,570)**		(332,735,195)
Total equity		**(2,805,686)**		(9,666,884)
Total liabilities and equity	**$**	**16,091,636**	$	11,993,294

NEOVASC INC.

Consolidated Statements of Loss and Comprehensive Loss
For years ended March 31,
(Expressed in U.S. dollars)

	2019	2018
REVENUE	**$ 585,793**	$ 339,922
COST OF GOODS SOLD	**(143,994)**	(87,393)
GROSS PROFIT	**441,799**	252,529
EXPENSES		
Selling expenses	**368,233**	286,938
General and administrative expenses	**2,680,931**	2,469,091
Product development and clinical trials expenses	**4,239,963**	3,999,391
	7,289,127	6,755,420
OPERATING LOSS	**(6,847,328)**	(6,502,891)
OTHER (EXPENSE)/INCOME		
Interest income	**3,709**	26,036
Impairment on right-of-use asset	**(260,616)**	-
Gain/(loss) on foreign exchange	**20,518**	(72,563)
Unrealized loss on derivative liability and convertible note	**(781,621)**	(4,337,049)
Realized loss on exercise of warrants and convertible note	**(786,407)**	(17,557,693)
Amortization of deferred loss	**-**	(27,382,735)
	(1,804,417)	(48,324,003)
LOSS BEFORE TAX	**(8,651,745)**	(55,826,894)
Tax recovery/(expense)	**36,370**	(53,654)
LOSS FOR THE PERIOD	**$ (8,615,375)**	$ (55,880,548)
OTHER COMPREHENSIVE INCOME FOR THE PERIOD		
Fair market value changes in convertible note due to changes in own credit risk	**696,553**	413,633
	696,553	413,633
LOSS AND OTHER COMPREHENSIVE LOSS FOR THE PERIOD	**$ (7,918,822)**	$ (55,466,915)
LOSS PER SHARE		
Basic and diluted loss per share	**$ (0.21)**	$ (0.38)