Impella® SmartAssist Platform Launches at ESC, Designed to Further Improve Patient Outcomes

August 31, 2019

PARIS--(BUSINESS WIRE)--Aug. 31, 2019-- **Abiomed (NASDAQ: ABMD) announces today that the Impella CP® with SmartAssist technology, which is designed to improve patient outcomes with advanced algorithms and simplified patient management, will be commercially available in Europe beginning at the European Society of Cardiology (ESC) Congress 2019 through a controlled roll out process at select sites. The majority of Impella CP heart pumps in Europe will be transitioned to SmartAssist over the next 12 months.**

This press release features multimedia. View the full release here: https://www.businesswire.com/news/home/20190831005001/en/

The new Impella CP heart pump features a fiber optic sensor, optimally positioned to measure the placement signal in the aorta, identify pump placement and enable repositioning without the use of imaging. (Graphic: Abiomed)

The new Impella CP heart pump features a fiber optic sensor, optimally positioned to measure the placement signal in the aorta, identify pump placement and enable repositioning without the use of imaging. The advanced sensors also enable the calculation and display of additional physiological data on the Automated Impella Controller. These advances to the Impella forward-flow heart pump technologies and software are designed to improve ease-of-use and patient management to improve both survival and heart recovery:

Weaning Algorithms to Optimize Survival and Native Heart Recovery:

- Real-time displays of critical hemodynamic metrics indicative of left ventricular end-diastolic pressure (LVEDP), mean arterial pressure (MAP), and cardiac power output (CPO). Impella CP with SmartAssist is the only mechanical circulatory support device that calculates and displays pressure signals indicative of LVEDP, MAP and CPO.

Easier Management and Repositioning:

- SmartAssist sensor allows for precise positioning in the aorta and left ventricle and repositioning in the ICU without the need for catheterization lab or ultrasound imaging[1].

Greater Hemodynamic Support:

- Allows for sustained peak flows of up to 4.3L/minute (>85% of a normal cardiac cycle).

Faster, Simplified Impella Console Set Up:

- Less than 90 seconds with fewer connections and reduced steps.

“Impella CP with SmartAssist is fast and easy to set up and to manage. The positioning and repositioning of this device is extremely precise thanks to the signal of the optical pressure sensor, its measurement is very reliable,” says PD Dr. med. habil. Karim Ibrahim, Head of Cardiology, Klinikum Chemnitz. “If you have a patient in cardiogenic shock, every minute counts to unload the left ventricle. CP SmartAssist is in this respect a tremendous technical innovation which can save essential time.”

After receiving CE mark in 2016 and FDA approval in 2018, the SmartAssist platform has been thoroughly validated for this commercial roll out during a limited market release in Germany and the US.

For further information, please see https://www.impella.eu/smartassist.

About Impella Heart Pumps

The Impella 2.5®, Impella CP®, Impella CP® with SmartAssist, Impella 5.0® and Impella LD® are CE-marked and FDA-approved heart pumps used to treat heart attack patients in cardiogenic shock. Impella heart pumps support the regeneration of the heart function, allowing patients to return home with their own heart. The Impella 2.5, Impella CP and Impella CP with SmartAssist devices are also approved to treat certain advanced heart failure patients undergoing elective and urgent percutaneous coronary interventions (PCI) such as stenting or balloon angioplasty, to re-open blocked coronary arteries. Abiomed's right-side heart pump, the Impella RP® device, is CE-marked and FDA approved to treat patients experiencing acute

right heart failure or decompensation following left ventricular assist device implantation, myocardial infarction, heart transplant, or open-heart surgery. Values displayed for LVEDP, CPO and MAP are for informational purposes only; the displayed estimates must not be used as a clinical marker for patient monitoring or treatment, but must be verified independently using an approved diagnostic device. To learn more about the Impella platform of heart pumps, including their approved indications and important safety and risk information associated with the use of the devices, please visit: www.protectedpci.eu.

About Abiomed

Abiomed Europe GmbH, Aachen/Germany is as wholly owned subsidiary of Abiomed Inc., based in Danvers, Massachusetts, a leading provider of medical devices that provide circulatory support. Our products are designed to enable the heart to rest by improving blood flow and/or performing the pumping of the heart. For additional information, please visit: www.abiomed.com

FORWARD-LOOKING STATEMENTS

This release contains forward-looking statements, including statements regarding development of ABIOMED's existing and new products, the Company's progress toward commercial growth, and future opportunities and expected regulatory approvals. The Company's actual results may differ materially from those anticipated in these forward-looking statements based upon a number of factors, including uncertainties associated with development, testing and related regulatory approvals, including the potential for future losses, complex manufacturing, high quality requirements, dependence on limited sources of supply, competition, technological change, government regulation, litigation matters, future capital needs and uncertainty of additional financing, and other risks and challenges detailed in the Company's filings with the Securities and Exchange Commission, including the most recently filed Annual Report on Form 10-K and Quarterly Report on Form 10-Q. Readers are cautioned not to place undue reliance on any forward-looking statements, which speak only as of the date of this release. The Company undertakes no obligation to publicly release the results of any revisions to these forward-looking statements that may be made to reflect events or circumstances that occur after the date of this release or to reflect the occurrence of unanticipated events.

[1] For ventricularized pumps.

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