

LivaNova Announces U.S. Launch of Optiflow Arterial Cannulae Family

*Novel dispersive tip design reduces aortic wall shear stress by 50 percent,
improves hydrodynamics, potentially decreases cardiac surgery risk*

London, September 25, 2017 – LivaNova PLC (NASDAQ:LIVN) (“LivaNova” or the “Company”), a market-leading medical technology company, today announced it received FDA 510(k) clearance for the U.S. market launch of its Optiflow Arterial Cannulae Family. Optiflow aortic arch cannulae provide improved hydrodynamics with a novel dispersive tip design that improves blood flow characteristics resulting in reduced wall shear stress (WSS) profiles.

Unlike standard arterial cannulae, Optiflow Arterial cannulae feature a unique basket tip with large openings that allow a more physiologically compatible dispersive design. This design has been shown to significantly reduce WSS and turbulence,¹ thereby improving hydrodynamics and potentially reducing ischemic complications from extracorporeal circulation (ECC) during cardiac surgery.

“The sandblasting effect of conventional arterial ECC cannulae can result in endothelial damage and plaque mobilization, and arterial embolization of atherosclerotic plaques during ECC surgery frequently results in severe complications such as stroke or ischemia of other organs,” said Dr. Alexander Assmann, Priv.-Doz. Dr., Heinrich Heine University, Düsseldorf, Germany. “The remarkable decrease in wall shear stress profiles and turbulence using dispersive cannula tips presents surgeons with the opportunity to reduce risk and improve outcomes when ECC is employed during cardiac surgery.”

In a recent trial using advanced numerical evaluation of a human aorta model and its branches simulating the effect of aortic cannulae on blood flow characteristics, Assmann et al. demonstrated a 50 percent decrease in average and peak WSS during both pulsatile and nonpulsatile ECC with dispersive cannula tips compared to standard cannula tips¹.

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“Built on a foundation of demonstrated hydrodynamic performance improvement, LivaNova is pleased to achieve FDA clearance and launch of the Optiflow Arterial Cannulae Family in the U.S.,” said Alistair Simpson, LivaNova’s General Manager of its Cardiac Surgery franchise. “We look forward to its quick adoption and further validation of its effectiveness in reducing the risk of cardiac surgery complications due to arterial embolization. The successful launch of the Optiflow Arterial Cannulae Family demonstrates our commitment to delivering cardiac surgery treatments that optimize the surgeon’s ability to deliver the best care possible to patients.”

Designed to reduce patient complications and meet cardiac surgery procedural needs, the Optiflow Arterial Cannulae Family is another example of LivaNova’s efforts to transform medical innovation into meaningful solutions. LivaNova offers a comprehensive portfolio of conventional cannulae in a wide range of tips and sizes. For more information on Optiflow and our cardiac surgery business, click [here](#).

1. Assmann, A., Gül, F., Benim, A.C., Joos, F., Akhyari, P., & Lichtenberg, A. (2014). Dispersive Aortic Cannulas Reduce Aortic Wall Shear Stress Affecting Atherosclerotic Plaque Embolization. Artificial Organs, 39(3), 203-211. doi:10.1111/aor.12359.

About LivaNova

LivaNova PLC is a global medical technology company built on nearly five decades of experience and a relentless commitment to improve the lives of patients around the world. LivaNova’s advanced technologies and breakthrough treatments provide meaningful solutions for the benefit of patients, healthcare professionals and healthcare systems. Headquartered in London and with a presence in more than 100 countries worldwide, the company employs more than 4,500 employees. LivaNova operates as three business franchises: Cardiac Surgery, Neuromodulation and Cardiac Rhythm Management, with operating headquarters in Mirandola (Italy), Houston (U.S.A.) and Clamart (France), respectively.

For more information, please visit www.LivaNova.com.

Safe Harbor Statement

Any forward-looking statements are subject to risks and uncertainties such as those described in LivaNova’s periodic reports on file with the Securities and Exchange Commission. Actual results may differ materially from anticipated results.

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