PRESS RELEASE

For Immediate Dissemination

OPSENS ANNOUNCES PUBLICATION IN JSCAI OF DATA SUPPORTING THE CORRELATION BETWEEN THE OPTOWIRE AND A NOVEL TAVR INTERFACE WITH STANDARD OF CARE, BEFORE AND AFTER TAVR

Quebec City, Quebec, May 18, 2022 – OpSens Inc. (“OpSens” or the "Company") (TSX:OPS) (**OTCQX:OPSSF)**, a medical device cardiology-focused company delivering innovative solutions based on its proprietary technology, today announced newly published data supporting the correlation between OpSens’ OptoWire, powered by Fidela™ sensor, and a novel transcatheter aortic valve replacement (TAVR) interface, with measurement derived from standard hemodynamic assessment, both before and after TAVR.

The results of the 20-patients clinical study were published in the Journal of the Society for Cardiovascular Angiography & Intervention (JSCAI) along with an editorial and online panel discussion ahead of the SCAI Scientific Session meeting to be held in Atlanta, Georgia, from May 19 to May 22.

Discrepancies between echocardiogram- and catheter-derived gradients have previously been reported by multiple groups after TAVR implantation, most likely due to inherent limitations of echocardiographic data acquisition, and other phenomena such as flow recovery after TAVR implantation.

These new clinical data presented by Dr. Philippe Généreux *(*Gagnon Cardiovascular Institute, Morristown Medical Center, Morristown, NJ) highlighted several key points, including:

1) hemodynamic assessment derived from the OpSens OptoWire III and the new TAVR algorithm demonstrated excellent correlation with measurements derived from standard catheterization technique using two pigtails; and

2) compared with transthoracic echocardiogram and transesophageal echocardiographic, the OpSens OptoWire III demonstrated the strongest correlation with catheterization measurement.

“These data support the accuracy of the Fidela™ optical sensor when compared to the gold standard of invasive hemodynamics using two pigtail catheters,” noted Dr. Genereux. “I am excited to use a more efficient technique that avoids the cumbersome setup and multiple catheter exchanges, required for catheterization measurement, once the SavvyWire™ becomes available.”

The SavvyWire™ is a third-generation, intelligent and pre-shaped structural guidewire with integrated pressure monitoring and the capacity to perform left ventricular pacing. This device aims at improving procedural efficiency and clinical outcomes by allowing multiple steps over the same device without exchange, in line with the minimalist approach. The SavvyWire™ was recently approved by Health Canada and has been submitted to the FDA for clearance.

Note:

The Fidela™ optical sensor embedded within the OptoWire III and the TAVR software algorithm integrated to the OpSens console are the same as the ones used for the SavvyWire™. The OptoWire III is not currently indicated for assessing or diagnosing aortic stenosis.

TAVR Procedure Evolution

Aortic valve stenosis occurs when the heart's aortic valve narrows, which prevents the valve from opening fully, restricting blood flow from the heart into the main artery (aorta) and onward to the rest of the body.

Initially, the TAVR procedure was only indicated for inoperable patients and then for high-risk surgical patients. Clinical programs like ‘’PARTNER III’’ and ‘’Evolut Low Risk’’, have since shown better or equivalent clinical outcomes in intermediate and low-risk patients. The TAVR procedure is now evolving

quickly with a minimalist approach that allows the procedure to be faster and the patients to be discharged earlier, sometimes on the same day.

The TAVR procedure is on the rise, driven by an aging of the population and recent studies that demonstrate its benefits to patients in a broader range of conditions.

About OpSens Inc. (www.OpSens.com or www.OpSensmedical.com)

OpSens focuses mainly on coronary artery stenosis measurement in interventional cardiology. The Company offers an advanced optical-based pressure guidewire that aims at improving the clinical outcome of patients with coronary artery disease. Its flagship product, the OptoWire, is a second-generation fiber optic pressure guidewire designed to provide the lowest drift in the industry and excellent lesions access. The OptoWire has been used in the diagnosis and treatment of over 150,000 patients in more than 30 countries. It is approved for sale in the United States, European Union, Japan, and Canada.

OpSens is also involved in industrial activities in developing, manufacturing, and installing innovative fiber optic sensing solutions for critical applications.

Forward-looking statements contained in this press release involve known and unknown risks, uncertainties and other factors that may cause actual results, performance, and achievements of OpSens to be materially different from any future results, performance or achievements expressed or implied by the said forward-looking statements.

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For further information, please contact: Louis Laflamme, CPA, CA, Chief Executive Officer, 418.781.0333
Robin Villeneuve, CPA, CA Chief Financial Officer, 418.781.0333