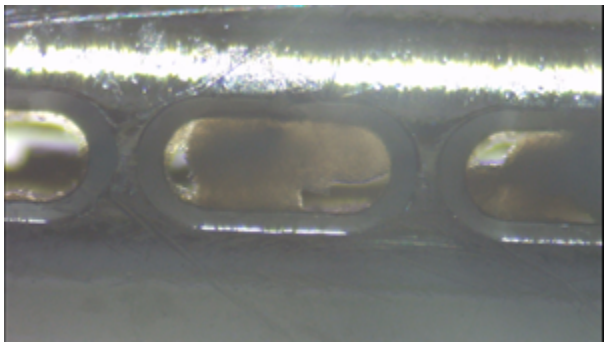
Recent Study Validates the Operational Effectiveness of Microbot Medical's Self-Cleaning Shunt (SCS™)

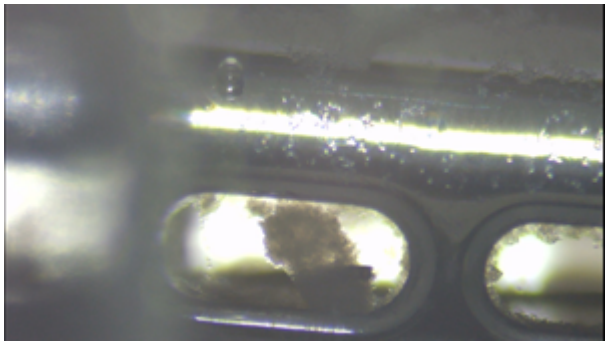
January 14, 2019

HINGHAM, Mass., Jan. 14, 2019 (GLOBE NEWSWIRE) -- Microbot Medical (NASDAQ: MBOT) announced today that it has validated the operational effectiveness of the Company's Self-Cleaning Shunt (SCS ^{TM}) in a recent independent in-vitro laboratory study. The Company also shared images of its SCS^{TM} from the laboratory study that clearly demonstrate the device prevented shunt occlusion.

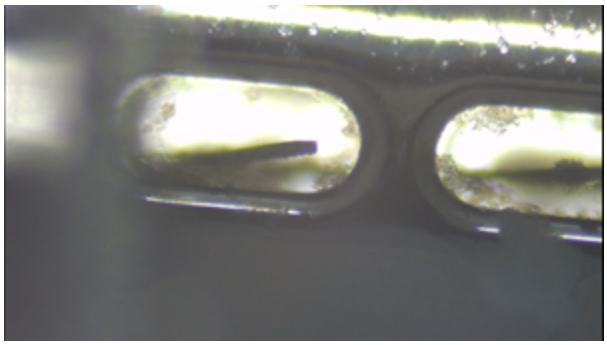


Non Activated shunt

Activated Shunt



4 weeks cell growth



10 minutes post shunt activation

“We believe the highly encouraging results from this latest study, which complements our previous pre-clinical studies, demonstrates the potential of our SCS™ product to revolutionize how Hydrocephalus and Normal Pressure Hydrocephalus (NPH) can be treated in the future,” commented Harel Gadot, CEO, President and Chairman. “We believe the performance of the SCS ™ during this and previous studies gives us greater confidence to explore additional medical applications for the device in conditions where occlusion occurs, such as in the Traumatic Brain Injury (TBI) space.”

The study was conducted at Envigo CRS Israel, a leading provider of non-clinical contract research services and research models. Human brain glioblastoma cells were used in order to assess performance of the SCS™ in a test system with accelerated cell growth rate, accumulation and obstruction rates. The study commenced in October 2018 and after 30 days it demonstrated:

- Significant cell growth and accumulation in a non-operating SCS™; and
- A significant inhibition in cell growth in the constantly operating SCS™ with very little to no cell attachment on the robotic brush (ViRob™) and on the opening where the robotic brush (ViRob™) operates.
- The study also demonstrated that the Company’s SCS ™ has the ability to operate after cells had accumulated on the catheter holes and the robotic brush (ViRob™). Moreover, SCS™ activation demonstrated the potential to disintegrate existing occlusions formed on the robotic brush (ViRob™) and on the opening where the robotic brush (ViRob™) operates.

In addition to this study, the Company previously announced data from two pre-clinical studies that were performed at leading U.S. academic institutions. Data from those studies were also presented by Professor Pat McAllister, Department of Neurosurgery, Washington University School of Medicine, St. Louis, at the International Hydrocephalus Conference, held in Bologna, Italy in October 2018.

- In-vitro study, which was performed at Wayne State University, supports the SCS™s potential as a viable technology for preventing occlusion in shunts used to treat hydrocephalus.
- In-vivo animal study, which was performed at Washington University School of Medicine in St. Louis, supports the safety profile of the Company’s SCS ™ as a CSF catheter.

The follow up study, which is being conducted by the same academic institutions, commenced in October 2018 and includes a larger sample size compared to the initial studies. The primary and secondary endpoints will seek to validate the safety and efficacy of the SCS™ that will be activated in both in-vitro (lab) and in-vivo (animal) models. The Company’s objective is to conclude the follow up study and announce the data in the second half of 2019. The Company plans to use the findings either for its regulatory submissions in the US, Europe and other jurisdictions, or as part of a pre-submission meeting request, depending on the final results of the ongoing follow-up study.

About Envigo

With over 3,300+ employees serving over 65 countries with a network of more than 25 operating facilities worldwide, Envigo provides comprehensive scientific expertise and a full service offering in non-clinical research and development, research models and services, regulatory consulting, and analytical support to our customers. Envigo is a privately held global company with corporate headquarters in New Jersey

About Microbot Medical, Inc.

Microbot™, which was founded in 2010 and commenced operations in 2011, became a NASDAQ listed company onNovember 28, 2016. The Company specializes in transformational micro-robotic medical technologies leveraging the natural and artificial lumens within the human body. Microbot’s current technological platforms, ViRob ™, TipCAT™ and CardioSert™, are comprised of three highly advanced technologies, from which the Company is currently developing its first product candidate: The Self-Cleaning Shunt, or SCS™, for the treatment of hydrocephalus and Normal Pressure Hydrocephalus, or NPH. The Company also is focused on the development of a Multi Generation Pipeline Portfolio (MGPP) utilizing all technologies. Further information about Microbot Medical is available at http://www.microbotmedical.com.

The ViRob™ technology is a revolutionary autonomous crawling micro-robot which can be controlled remotely or within the body. Its miniature dimensions allow it to navigate and crawl in different spaces within the human body, including blood vessels, the digestive tract and the respiratory system. Its unique structure gives it the ability to move in tight spaces and curved passages as well as the ability to remain within the human body for prolonged time. To learn more about ViRob™ please visit http://www.microbotmedical.com/technology/virob/.

TipCAT™ is a transformational self-propelled, flexible, and semi-disposable locomotive device providing see & treat capabilities within tubular lumens in the human body such as the colon, blood vessels, and the urinary tract. Its locomotion mechanism is perfectly suitable to navigate and crawl through natural & artificial tubular lumens, applying the minimal necessary pressure to achieve the adequate friction required for gentle, fast, and safe advancement within the human body. To learn more about TipCAT™, visit http://www.microbotmedical.com/technology/tipcat/.

CardioSert™ technology contemplates a unique combination of a guidewire and microcatheter, technologies that are broadly used for endoluminal surgery. The CardioSert™ technology features unique steering and stiffness control capabilities, and it was originally developed to support interventional cardiologists in crossing the most complex lesions called chronic total occlusion (CTO) during percutaneous coronary intervention (PCI) procedures and has the potential to be used in other spaces and applications, such as peripheral intervention, neurosurgery and urology. CardioSert™ was part of a technological incubator supported by the Israel Innovation Authorities (formerly known as the Office of the Chief Scientist, or OCS), and its device has successfully completed pre-clinical testing.

Safe Harbor

Statements pertaining to future financial and/or operating results, future growth in research, technology, clinical development, and potential opportunities for Microbot Medical Inc. and its subsidiaries, along with other statements about the future expectations, beliefs, goals, plans, or prospects expressed by management constitute forward-looking statements. Any statements that are not historical fact (including, but not limited to statements that contain words such as “will,” “believes,” “plans,” “anticipates,” “expects” and “estimates”) should also be considered to be forward-looking statements. Forward-looking statements involve risks and uncertainties, including, without limitation, risks inherent in the development and/or commercialization of potential products, the outcome of its studies to evaluate the SCS and other existing and future technologies, uncertainty in the results of pre-clinical and clinical trials or regulatory pathways and regulatory approvals, need and ability to obtain future capital, and maintenance of intellectual property rights. Actual results may differ materially from the results anticipated in these forward-looking statements and as such should be evaluated together with the many uncertainties that affect the businesses of Microbot Medical Inc. particularly those mentioned in the cautionary statements found in Microbot Medical Inc.’s filings with the Securities and Exchange Commission. Microbot Medical disclaims any intent or obligation to update these forward-looking statements.

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Photos accompanying this announcement are available at
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