Delft, January 2023

European grant enables Mellon Medical to move towards clinical trials

At the beginning of December, Dutch company Mellon Medical received a significant grant from the Eurostars Program. The grant was awarded to support further research into the continued development of an innovative suturing instrument, the Switch suturing device. During the official ceremony held on 20 December in The Hague, the spotlight was put on all recipients of a Eurostars grant. Jan Benschop, CEO Mellon Medical was among the recipients: "Thanks to this grant we can take the first steps towards clinical trials with the Switch. We will continue development and will manufacture multiple prototypes. We can then start with the initial preclinical studies at Erasmus MC this year. This will become the first 'small bites' suturing instrument in the world that will enable surgeons to place sutures faster and more precisely. This will allow them to reduce incisional hernias in the abdominal wall after operations by 50%. That means reduced inconvenience for patients and therefore a better quality of life. Furthermore, it helps drastically reduce care costs."

Closing the abdominal wall after an operation normally is done using so-called 'big bite' sutures interspaced at approximately ten millimeters. Scientific research conducted under the leadership of Erasmus MC has shown that 'finer' sutures using 'small bites' interspaced at five to seven millimeters result in fewer complications. This ensures better results. However, for a surgeon suturing with 'small bites' using the conventional approach is time consuming due to the handling of the needle. Also, the curvature in the needle makes it more difficult to go through the tissue in a straight manner. Mellon Medical, founded in 2013, came up with a solution, the Switch suturing device. This instrument has two jaws that the surgeon can move towards each other enabling him/her to automatically move a straight needle from one jaw to the other. The surgeon has the other hand free to position the tissue to be sutured. This promotes precision and thus benefits the suture's quality. Furthermore, it enables the surgeon to make the sutures twice as fast.

International cooperation

Mellon Medical engaged technology developer and producer Demcon for the further development and production of this innovative suturing instrument. In the spring of 2022, they founded a research consortium to be able to move towards clinical trials. The other consortium members include Erasmus MC and Assut Medical from Italy, that manufactures suturing needles and thread. In September, the consortium submitted a grant application for research in support of the Switch's continued development.

Eurostars grant

Last month, Eurostars, a European program for SME companies that conduct research in cross-border R&D projects, awarded the grant. Of the total of 63 applicants from the Netherlands, Mellon Medical ended up in third place in the evaluation of the research proposals. The grant consists of a significant amount of funding for all Dutch partners and applies for a three-year research period.

Better quality of life

Naturally, Benschop is very happy with the award. "With this grant we will continue to further develop the Switch suturing device and manufacture multiple prototypes. In addition, we can start with the initial pre-clinical studies at Erasmus MC this year. This will then become the first 'small bites' suturing instrument in the world that will enable surgeons to make sutures faster and more precisely. This will allow them to reduce incisional hernias in the abdominal wall after operations by 50%. That means less inconvenience for patients who therefore experience a better quality of life. Furthermore, it helps drastically reduce care costs."

Proud of consortium

Benschop above all is proud of the consortium that will be working on the continued development of Mellon Medical's innovative suturing instrument. "Erasmus MC is a big name worldwide in abdominal wall research and studies into preventing incisional hernias. Our Switch is based on a suturing technique developed by an Erasmus MC surgical team. We have signed an official research agreement with them and our contact with them is very intensive and is based on high mutual trust. Assut is a recognized specialist in all accessories required for surgical suturing. They are going to develop a custom needle-thread combination for the Switch. Demcon contributes its broad expertise of medical product development and, based on the trust in our company and our technology, has also invested in this venture."

Contributing to success

Demcon stays involved in minority interests such as Mellon Medical, says Gido Akse, managing director of Demcon innovation & technology. "We also try to support them in the area of public-private partnerships. Often there is a financing issue and we then start looking for suitable opportunities." Jemy Pauwels, managing director of Demcon investment, adds: "This support is part of the proactive role Demcon investment assumes for minority interests. We can take a share and, furthermore, offer practical support in the day to day operation of a company. The partnership between Mellon Medical, Demcon innovation & technology and Demcon investment is a nice example of this. It demonstrates that we are genuinely interested in contributing to the success of a company."

Note for the media (not for publication)

For more information, please contact Jan Benschop, CEO of Mellon Medical, 06 541 12 534, benschop@mellonmedical.com.

Also see www.mellonmedical.com.