Össur and Alfred Mann Foundation Sign New Agreement to Extend Exploration of Mind-Controlled Prosthetics

The Organizations are Collaborating on Implanted Myoelectric Sensors to Control Bionic Prosthetic Limbs

REYKJAVIK, Iceland and SANTA CLARITA, CA. – November 4, 2019 – Jon Sigurdsson, President & CEO of Össur and John Petrovich, CEO of the Alfred Mann Foundation (AMF) recently signed a milestone agreement that allows Össur to further develop and license AMF’s implanted myoelectric sensor (IMES®) system as both organizations continue exploring the potential of mind-controlled prosthetic technologies.

The IMES® sensors are implanted in muscles that directly control the desired movement of a bionic prosthetic limb. The implants sense a small electrical charge in the muscle tissue and send information wirelessly to the prosthetic limb when the user intends to make specific movements. As a result, the bionic limb responds with the desired movement in virtually the same way that a sound arm, hand or leg would respond.

The world’s first-in-man cases to initially evaluate the IMES® were conducted in 2014 on upper-limb amputees from the US military, using i-Limb® bionic prosthetic hands produced by Össur. In 2015, two lower-limb amputees from Iceland had IMES® units surgically implanted into their residual muscle tissue and demonstrated their ability to control their Össur leg prostheses with their intentions.

As the IMES® system served as a bridge between the amputee users’ neuro-muscular system and their artificial limbs, the learning process took place subconsciously, continuously and in real-time for both users. The IMES® system has also successfully been used in another pilot study to control an entire bionic arm in amputees who had undergone targeted muscle re-innervation (TMR) surgery.

“We are eager to further explore how the user-experience will evolve when amputees use our advanced Bionic prosthetic solutions along with this advanced sensor technology,” said Jon Sigurdsson, President and CEO of Össur. “This agreement is another demonstration of our company’s continuing commitment to ongoing research and development in the field of advanced prosthetics, to help more people enjoy a life without limitations. Our Bionic products are truly ready to step into the future,” he said.

“We are proud to see our technologies taking a step towards the market, which is an essential part of our mission,” said John Petrovich, President and CEO of the Alfred Mann Foundation. “I can think of no better partner to carry on the future development of the IMES® system. Össur has the most extensive lineup of devices capable of using the system, and more importantly they have the vision to see that mind control will be an important part of the future of bionic prosthetics.”

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About Össur
Össur (NASDAQ OMX OSSR) is a global leader in non-invasive orthopaedics that help people live a life without limitations. Its business is focused on improving people’s mobility through the delivery of innovative technologies within the fields of Prosthetics and Bracing & Supports. A recognized “Technology Pioneer,” Össur invests significantly in research and product development—its award-winning designs ensuring a consistently strong position in the market. Successful patient and clinical outcomes are further empowered via Össur’s educational programs and business solutions. Headquartered in Iceland, Össur has major operations in the Americas, Europe and Asia, with additional distributors worldwide. www.ossur.com

About the Alfred Mann Foundation
The Alfred E Mann Foundation (AMF) is an independent non-profit medical device incubator whose mission is to develop and commercialize innovative solutions for significant unmet medical conditions. Since its founding in 1985, by Alfred Mann, the AMF has developed a record of success in developing and commercializing technology for unmet or poorly met medical conditions. In 1993, Advanced Bionics was formed to commercialize a cochlear implant developed by AMF. In a series of transactions during 2004-2009, Advanced Bionics was sold to Boston Scientific and Sanova for $2.2B. From 1993-1996, Minimed and MRG were formed to commercialize a number of diabetes products developed by AMF and were sold to Medtronic in 2001 for $3.7B. In 1998, Second Sight was created to commercialize a retinal prosthesis then under development at AMF. In 2014, Second Sight listed on the NASDAQ stock exchange in a successful IPO with a market cap of exceeding $700M on its first day of trading. In 2018, Axonics, a company founded by AMF, also listed on NASDAQ, raising $138M and today has a market cap over $700M.