ONWARD® Medical Announces Publication Highlighting Evidence-based Programming for ARC-EX® Therapy

Framework to determine stimulation parameters for ONWARD ARC-EX Therapy are published in the journal Neuromodulation: Technology at the Neural Interface

Peer-reviewed publication is based on results from the Up-LIFT and LIFT Home studies

EINDHOVEN, the Netherlands — July 9, 2024 — ONWARD Medical N.V. (Euronext: ONWD), the medical technology company creating innovative spinal cord stimulation therapies to restore movement, function, and independence in people with spinal cord injury (SCI), today announces a publication in *Neuromodulation: Technology at the Neural Interface*, summarizing effective stimulation parameters from the Up-LIFT and LIFT Home studies and providing a decision-making framework for clinical implementation of ONWARD ARC-EX Therapy created by study investigators.

Investigational ARC-EX Therapy is non-invasive, programmed spinal cord stimulation designed to improve upper limb function after incomplete cervical SCI. The publication in *Neuromodulation: Technology at the Neural Interface* provides an evidence-based framework to determine stimulation parameters for ARC-EX Therapy based on analysis of device parameters, usage data, and clinician and participant feedback from the Up-LIFT pivotal trial and follow-on LIFT Home study.

The *Neuromodulation* publication references observations and results from the Up-LIFT pivotal trial, which were published in May 2024 in *Nature Medicine*, and which demonstrated significant improvement in hand and arm function after SCI with use of ARC-EX Therapy. At the end of the trial, 72% of participants were considered responders to non-invasive ARC-EX Therapy* based on a responder definition for participants to meet improvement criteria in both strength and functional domains. Notably, the number of responders increased to 90% when the definition included participants with improvements in at least one strength or functional outcome* and 87% of participants reported improvements in quality of life with ARC-EX Therapy*. There were no serious device-related adverse events observed during either the Up-LIFT trial or LIFT Home study.

Up-LIFT and Lift Home study investigators recognized the importance of simplifying programming processes for their peers. “We are very excited to share the insights we gained through the first large-scale study of transcutaneous spinal stimulation with clinicians” said Chet Moritz, PhD, co-Principal Investigator of the Up-LIFT trial, publication co-author, and Professor of Electrical & Computer Engineering and Rehabilitation Medicine at the University of Washington. “These programming insights were developed based on our experience with 60 participants in the Up-LIFT trial, and we expect them to be very helpful in determining the optimal parameters for stimulation for a wide range of patients in the clinic.”

To learn more about ONWARD Medical’s commitment to partnering with the SCI Community to develop innovative solutions for restoring movement, function, and independence after spinal cord injury, please visit ONWD.com.

*Moritz, Chet, et al. “Non-invasive spinal cord stimulation for arm and hand function in chronic tetraplegia: a safety and efficacy trial.” *Nature Medicine*. 2024.

Note: Unless otherwise noted, statements herein are based on the publication discussed: Gelenitis, Kristen, et al. “Non-invasive Transcutaneous Spinal Cord Stimulation Programming Recommendations for the Treatment of Upper Extremity Impairment in Tetraplegia” *Neuromodulation*. 2024.

All ONWARD® Medical devices and therapies, including but not limited to ARC-IM®, ARC-EX®, ARC-BCI™, and ARC Therapy™, alone or in combination with a brain-computer interface (BCI), are investigational and not available for commercial use.

About ONWARD Medical

ONWARD® Medical is a medical technology company creating therapies to restore movement, function, and independence in people with spinal cord injury (SCI) and movement disabilities. Building on more than a decade of scientific discovery, preclinical, and clinical research conducted at leading hospitals, rehabilitation clinics, and neuroscience laboratories, the Company has developed ARC Therapy™, which has been awarded ten Breakthrough Device Designations from the US Food and Drug Administration (FDA).

ONWARD ARC Therapy is targeted, programmed spinal cord stimulation designed to be delivered by the Company’s external ARC-EX® or implantable ARC-IM® platforms. ARC Therapy can also be delivered by the Company’s ARC-BCI™ platform, which pairs the ARC-IM System with brain-computer interface (BCI) technology to restore movement after SCI with thought-driven control.

Use of non-invasive ARC-EX Therapy significantly improved upper limb function after SCI in the global pivotal Up-LIFT trial, with results published by *Nature Medicine* in May 2024. The Company has submitted its regulatory application to the FDA for clearance of the ARC-EX System in the US and is preparing for regulatory submission in Europe. In parallel, the Company is conducting clinical studies with its ARC-IM Therapy, which demonstrated positive interim clinical outcomes for improved blood pressure regulation following SCI. Other ongoing clinical studies focus on using ARC-IM Therapy to address mobility after SCI and gait challenges in Parkinson’s disease as well as using the ARC-BCI platform to restore thought-driven movement of both upper and lower limbs after SCI.

Headquartered in Eindhoven, the Netherlands, ONWARD Medical has a Science and Engineering Center in Lausanne, Switzerland and a US office in Boston, Massachusetts. The Company is listed on Euronext Brussels and Amsterdam (ticker: ONWD).

For more information, visit ONWD.com, and connect with us on LinkedIn and YouTube.

For Media Inquiries:
Aditi Roy, VP Communications
media@onwd.com

For Investor Inquiries:
Amori Fraser, Finance Director
investors@onwd.com

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