

Nature Medicine Publication Highlights Potential for ONWARD® ARC Therapy™ to Improve Mobility After Parkinson's Disease

Therapy to be supported by newly awarded \$1M grant from Michael J. Fox Foundation

EINDHOVEN, the Netherlands — November 06, 2023 — 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 [Nature Medicine](#) using investigational ONWARD ARC Therapy to address gait challenges related to Parkinson's disease.

The study participant described in the *Nature Medicine* publication has been living with Parkinson's disease for nearly three decades. He has a severe gait disorder that has not responded to conventional therapies.

"I could hardly walk without frequent falls, several times a day. In certain situations, like getting into an elevator, I would stomp, freeze as they say," said the study participant in a [press release issued by Switzerland's Lausanne University Hospital \(CHUV\)](#).

In 2021, researchers from the Swiss Federal Institute of Technology (EPFL) and CHUV investigated the possibility that ONWARD ARC Therapy (precise, targeted electrical stimulation of the spinal cord) could address common side effects of Parkinson's disease that negatively impact mobility. The team collaborated with Dr. Erwan Bezard, a renowned neuroscientist from France's National Institute of Health and Medical Research (INSERM).

After the introduction of ARC Therapy and benefitting from a few weeks of rehabilitation, the study participant was able to walk without previously noticeable gait interruptions. Today, he uses ARC Therapy eight hours per day.

"I turn on the stimulation in the morning and turn it off in the evening. It allows me to walk better, to stabilize myself. Even stairs don't scare me anymore. Every Sunday I go to the lake, and I walk about six kilometers. It's awesome," said the participant in the CHUV release.

"The breakthrough reported in *Nature Medicine* shows the remarkable potential to use the same technology platform and therapy we are developing for spinal cord injury to also address mobility challenges stemming from Parkinson's disease," says Dave Marver, CEO of ONWARD.

"It is impressive to see that by electrically stimulating the spinal cord the same way we have done in paraplegic patients, we may be able to address gait disorders due to Parkinson's disease," adds neurosurgeon Jocelyne Bloch, co-director with Professor G. Courtine of ONWARD research partner .NeuroRestore.

.NeuroRestore was awarded a \$1 million grant from The Michael J. Fox Foundation for Parkinson's Research (MJFF) to implant the ARC-IM System and investigate the effect of ARC Therapy in six additional participants with Parkinson's disease. This study will assist ONWARD in determining whether to conduct additional clinical trials and potentially commercialize ARC Therapy in the future for those living with Parkinson's disease.

“MJFF is committed to fulfilling the unmet needs of people living with Parkinson’s disease by ensuring the development of improved therapies,” said Katharina Klapper, Director of Clinical Research, MJFF. “The Foundation is pleased to award a grant for scientists at EPFL and ONWARD Medical to investigate the effects of ARC Therapy in people with experiencing gait challenges.”

All ONWARD devices and therapies, including but not limited to ARC-IM, ARC-EX, and ARC Therapy, are investigational and not available for commercial use.

Note: ONWARD has previously disclosed achievement of human proof-of-concept for Parkinson’s disease in its [Company Presentation](#).

About ONWARD Medical

ONWARD 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 science and preclinical research conducted at leading neuroscience laboratories, the Company has received nine Breakthrough Device Designations from the US Food and Drug Administration for its ARC Therapy™ platform.

ONWARD® ARC Therapy, which can be delivered by external ARC-EX™ or implantable ARC-IM™ systems, is designed to deliver targeted, programmed spinal cord stimulation. Positive results were presented in 2023 from the Company’s pivotal study, called Up-LIFT, evaluating the ability for transcutaneous ARC Therapy to improve upper extremity strength and function. The Company is now preparing regulatory approval submissions for ARC-EX for the US and Europe. In parallel, the Company is conducting studies with its implantable ARC-IM platform, which demonstrated positive interim clinical outcomes for improved blood pressure regulation, a component of hemodynamic stability following SCI. Other ongoing studies include combination use of ARC-IM with a brain-computer interface (BCI).

Headquartered in Eindhoven, the Netherlands, ONWARD has a Science and Engineering Center in Lausanne, Switzerland and a US office in Boston, Massachusetts. The Company also has an academic partnership with .NeuroRestore, a collaboration between the Swiss Federal Institute of Technology (EPFL), and Lausanne University Hospital (CHUV).

For more information, visit [ONWD.com](https://onwd.com), and connect with us on [LinkedIn](#) and [YouTube](#).

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