

VA



U.S. Department of Veterans Affairs
Veterans Health Administration
VA Northeast Ohio Healthcare System



Post-Doctoral Researcher (Neurally Integrated Prostheses)

The **Department of Biomedical Engineering at Case Western Reserve University** and the **Louis Stokes Cleveland VA Medical Center** (Cleveland, OH) are inviting highly motivated individuals to apply for a new post-doctoral position dedicated to studying the functional effects of a neurally integrated prosthesis for individuals with lower limb loss. This unique opportunity involves activating peripheral sensory nerves with high-density nerve cuff electrodes and deriving command and control signals from muscles in the residual limb and elsewhere. The work will be performed in the laboratories of Drs. Hamid Charkhkar & Ronald Triolo. The fellow will be intimately involved with characterizing the responses elicited by sensory stimulation, analyzing myoelectric activities, interfacing with advanced robotic lower limb prostheses, and determining their effects on gait biomechanics, dynamic stability, and confidence in various environments.

Candidates should possess:

- A doctoral degree in a discipline related to biomedical engineering, neural engineering, mechanical engineering, or kinesiology.
- Research experience with human subjects, particularly with neurological impairments.
- Demonstrated expertise in gait and movement analysis.
- Fundamental knowledge of sensory-motor neurophysiology, biomechanics of gait and posture, and human motor control.
- Strong programming, data analysis, and computational skills.
- Productive history or good potential of generating peer-reviewed publications.
- Ability to work both independently and as a member of an interdisciplinary team.
- Willingness to guide and mentor trainees on biomechanical aspects of the project.
- Excellent oral and written communication and interpersonal skills.

Applicants must be motivated and independent self-starters with a Ph.D. or equivalent. U.S. Citizenship or Permanent Residency is strongly preferred but not required. Qualified candidates should send a 1) CV, 2) research statement, and 3) names of two references to:

careers@aptcenter.org