



Advanced Platform Technology Center A VA Research Center

FACT SHEET

Structure: Federal research center of the VA Rehabilitation Research and Development Service of the U.S. Department of the Veterans Affairs established in collaboration with Case Western Reserve University to provide infrastructure to clinicians and scientists pursuing innovative medical devices and therapies to enhance veteran health. Core VA funding: renewable \$5MM over 5-year grant.

Location:

Offices and lab space provided by Louis Stokes VA Medical Center, Cleveland OH; with labs and investigators at the affiliated academic and clinical institutions of Case Western Reserve University, Cleveland Clinic Foundation, MetroHealth System, and Cleveland State University.

Mission:

To develop advanced technologies that **serve the clinical needs of veterans** with **sensory, motor and cognitive deficits or limb loss**, and disseminate **new tools for rehabilitation, treatment and scientific inquiry** that lead to enhanced health, independence and societal participation.

FY '18 Stats:

52 investigators, including 30% who are clinicians
5 Career Development Awardees
From our 20 Core Investigators:

- 62 active grants, \$14.6M in FY18 grant funding,
72 Publications, 113 Conference Abstracts/
Presentations

To-Date Stats:

27 patents
3 Presidential Early Career Scientist Awardees
1 NIH Director's Transformative Research Awardee
7 FDA approved IDEs (investigational device exemptions) & MAFs (device master file)

Research Program Areas:

Prosthetics/Orthotics

Neural Interfaces

Health Monitoring/Maintenance

Enabling Technologies

Organizational Programs:

- Summer Internship Program
- Distinguished Lecture Series
- Steve Garverick Innovation Incentive Award (pilot grant; offered 2 times per year)
- Emerging Technology Workshops
- Quarterly Investigator Meeting
- Pre-submission Peer Review (grants and publications)
- External Advisory Panels (clinical and industrial)
- Platform Advisory Board (project support resource prioritization)
- Executive Steering Committee

Operational Structure:

Core funding provides for the Content Specialists that leverage resources for the investigators: Engineering; Project management; Fiscal and grant management; Quality and regulatory affairs; IT support; Purchasing and contracting management; Marketing; Communications and Outreach; Intellectual Property assistance; Technical writing and editing

History:

Founded in 2005, currently on third round of 5-year grant cycle; one of 13 across the U.S.

Technological 2005 to 2009

- Established Quality & Design Controls
- Transferred pre-existing devices to manufacturers
- Created revolutionary dynamic material
- Optimized selective nerve electrodes
- Initiated development of new technology

Transformative 2010 to 2014

- Established Regulatory core
- Filed MAF & IDEs for new peripheral nervous system electrodes
- Deployed devices in first-in-man trials
- Conducted pre-clinical device tests of APT technology
- Demonstrated clinical performance of motor & sensory system neuroprostheses

Translational 2015 to 2019

- Move original technology from pre-clinical to human feasibility trials
- Perform definitive pre-clinical trials of maturing devices
- Increase productive interactions with industry & VA
- Extend capabilities to wireless health and wearable computing



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www.aptcener.research.va.gov



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