



Icahn School of Medicine at Mount Sinai *BioMedical Engineering and Imaging Institute*

## **Associate or Full Professor of Neuroengineering**

### **Icahn School of Medicine at Mount Sinai, New York, NY**

The BioMedical Engineering and Imaging Institute (BMEII) at the Icahn School of Medicine at Mount Sinai (ISMMS), in partnership with Rensselaer Polytechnic Institute, is seeking mid to senior level faculty members to spearhead a novel research initiative in neuroengineering.

The envisioned scientific focus includes neural interface technologies dedicated to the detection, recording, and processing of signals from the brain (electrophysiological, magnetic); non-invasive neuromodulation techniques (such as focused ultrasound, TMS, tens); innovative materials and devices for neural interfaces; biotechnologies applied to the nervous system (encompassing hardware, software, and computational techniques); and advanced imaging and control methodologies for cells within the brain (stem cell imaging, cell-based contrasts).

The primary goal of BioMedical Engineering and Imaging Institute is to develop unique approaches to biomedical sciences and therapeutic interventions by bridging basic and translational research and education by leveraging expertise in medicine and engineering. Specific focus areas include medical imaging, nanomedicine, artificial intelligence, sensor technologies, next generation medical devices, robotics and computer vision.

The position will be a joint position between BMEII and the newly established Center for Engineering and Precision Medicine (CEPM). CEPM is a collaborative center for education, research, and innovation between ISMMS and Rensselaer Polytechnic Institute (RPI), is situated in a state-of-the-art facility at 619 West 54th Street, part of the burgeoning biotechnology hub along 11th Avenue in New York City. The center supports both wet lab and dry lab research, and core facilities in proteomics, genomics, stem cell research, and flow cytometry are readily accessible in nearby buildings at Mount Sinai. CEPM faculty members will have the opportunity to engage in seamless collaborations with established engineering labs conducting cutting-edge research in devices, sensors, cellular and biomolecular engineering, and biomaterials at RPI. Abundant open lab space is available for the growth of a new faculty member's team.

Moreover, the Center is in the process of establishing an Engineering Medicine PhD program and CEPD Development Labs, with a focus on commercializing and translating new technologies into patient care. This represents a distinctive opportunity to contribute to the dynamic expansion of bioengineering research in medicine at the heart of New York City.

Roles and responsibilities:

- Perform novel independent research in the field of neuroengineering;
- Identify opportunities for collaboration to translate neuroengineering innovations to clinical practice;
- Play a key role in strengthening and contributing to the Engineering Medicine PhD program;
- Participate in strategic decision making and administration of BMEII/CEPD
- Mentor students and postdoctoral scholars within BMEII/CEPD

Desired qualifications:

- Doctoral degree and post-doctoral training, with expertise in research towards understanding and applying neural engineering concepts and technologies;
- Established track record of independent NIH or NSF funding;
- National and international recognition for high impact research;
- Ability to work collaboratively and bring a novel perspective to neuroengineering research.

Interested individuals should send a CV and a brief statement of interest to Teresa Lotz ([teresa.lotz@mssm.edu](mailto:teresa.lotz@mssm.edu))