Post-doctoral Positions on Fiber-format actuators for wearable robotics

The Soft Transducers Laboratory (EPFL-LMTS) at the EPFL in Neuchatel, Switzerland has an opening for two talented and motivated postdocs to develop high-performance fiber-format soft actuators for applications in wearable robotics.

Your Profile
- PhD in Physics, Electrical or Mechanical Engineering, or related fields
- Strong experimental skills
- Ability to collaborate closely with colleagues in a multicultural setting
- Preferably experience with soft actuators, wearables, or full-body haptics

Research Context
The EPFL-LMTS is a leader in developing soft actuators based on elastomers, with unique expertise in electrostatic actuation at the mm and cm-scale. We are exploring applications in wearable robotics, using new materials enabled by synthetic biology.

The positions are fully funded by the Novo Nordisk Foundation, as part of a larger project on soft exoskeletons with partners at DTU (Denmark) and Northeastern University (USA).

Your Tasks
You will create compliant fiber-format actuators based on energy efficient principles such as electrostatic zipping, clutching, and electrohydrodynamics. By developing a deep understanding of the physics of these devices, you will design and choose materials, architectures, and scalable fabrication methods that enable unrivaled performance for soft exoskeletons. You will integrate the electroactive fibers in active textiles and explore how to obtain effective and comfortable on-body force transmission.

Contract Details
- 12-month contract, renewable up to 4 years maximum
- Start date: November 2022, or by arrangement
- Work location is Neuchatel, Switzerland.

We Offer
- Excellent facilities (state of the art cleanrooms, dedicated platform for soft matter processing, extensive characterization equipment)
- A young, dynamic, inter-disciplinary, and international working environment.
- Competitive salary

To apply for the position, please email a CV, cover letter, university transcript, and list of three references to herbert.shea@epfl.ch. (incomplete applications will not be considered)

Further information about our lab in general can be found at www.epfl.ch/labs/lmts/