Polymer Program

INSTITUTE OF MATERIALS SCIENCE

Webinar: 9:00 am Friday, December 9

Link: https://uconn-edu.zoom.us/j/96060394198?pwd=NHBEbStDN0ppWG5ldGpTSjhHSUFWZz09

Host: Yi Zhang

Dr. Stephanie Lacour

Soft Bioelectronic Interfaces

Swiss Federal Institute of Technology

Soft Neural Interfaces for Discovery and Translational Research

Abstract: Bioelectronic medicine is becoming essential to preventing, diagnosing, caring for, and treating human diseases and injuries. A wide variety of materials and device formats are being proposed to create the next generation of human bioelectronics, and in particular neural interfaces but very few of these technologies have evolved from their original academic demonstrations to viable tools for translational research and ultimately clinical use. The introduction of soft materials in the neural interface design enables improved biocompatibility and new probing methodology. *In vitro* multimodal platforms allow systematic design optimization and reliability testing of soft neural interfaces. Microfabrication promotes versatile interface layouts and functions, and scalability. This talk will illustrate these critical steps using examples of soft neural interfaces for the central and peripheral nervous systems.

Bio: Stéphanie P. Lacour is full professor at the School of Engineering at the Ecole Polytechnique Fédérale de Lausanne. She received her PhD in Electrical Engineering from INSA de Lyon, France, and completed postdoctoral research at Princeton University (USA) and the University of Cambridge (UK). She joined EPFL in 2011. She is the director of EPFL Neuro-X institute.

She is the recipient of the 2006 MIT TR35, the 2011 Zonta award, and she was selected as one of the 2015 WEF Young Global Leaders. She was awarded the ERC Starting Grant (2011), ERC POC Grants (2016 & 2018) and the SNSF Consolidator grant (2016).