

**November 2020
Meeting**



**Northeastern Section
American Chemical Society
(NESACS)**

***November 2020 Monthly Meeting Featuring
Prof. Catherine E. Costello
Center for Biomedical Mass Spectrometry
Boston University School of Medicine, Boston, MA***

Thursday – November 12th, 2020

Please register at this link: <https://american-chemical-society.zoom.com/meeting/register/tZEqdO-vpjosGdQDtYT9xhivvUnbHXBTRtz2>



- 4:30 pm – 5:30 pm **NESACS Board Meeting** (BREAKOUT ROOM-*please pre-register*)
- 5:30 pm – 6:30 pm **Social Hour** (BREAKOUT ROOMS)
- 6:30 pm – 7:30 pm **Presentation of 50, 60 70 Year Member Awards
Monthly Meeting Featuring Professor Catherine Costello,
Boston University School of Medicine, Boston, MA
(MAIN ZOOM)**
- 7:30 pm – 8:30 pm Post Meeting Virtual Trivia (BREAKOUT ROOMS)

***YOU MUST REGISTER IN ADVANCE TO ATTEND THE MEETING. THERE IS NO
REGISTRATION FEE TO ATTEND THE MEETING.***

Prof. Catherine E. Costello's Abstract and Biography:

Mass Spectrometric Investigations of Molecular Details
That Impact Biological Functions

Development of new drugs and diagnostic tools requires increased understanding of infection, cancer, and the immune system. Infectious agents usually gain entrance to their hosts through the interactions of surface molecules. The immune system is responsible for and exploits the interactions of proteins with one another and with glycans (and other classes). In order to explore these phenomena, to investigate how the body can combat challenges (even with sometimes deleterious consequences), and to utilize this knowledge to control disease, we now rely heavily on insight provided by mass spectrometry. This lecture will focus on mass spectrometry approaches that we are developing and using to elucidate critical pathways in the inter- and intra-molecular interactions that are important in infection, carcinogenesis, and neurodegeneration.

Biographical Sketch:

Prof. Catherine E. Costello
Center for Biomedical Mass Spectrometry
Boston University School of Medicine, Boston, MA

Catherine E. Costello is a William Fairfield Warren Distinguished Professor at Boston University, with appointments in the Depts. of Biochemistry, Biophysics and Chemistry. She earned her AB at Emmanuel College, Boston, and PhD at Georgetown University, Washington, DC. She was a postdoctoral fellow and Senior Research Scientist at MIT, where she served as Associate Director of the NIH Mass Spectrometry Resource for more than 20 years. She founded the BU School of Medicine Center for Biomedical Mass Spectrometry in 1994. Her research centers on development of mass spectrometry-based instrumentation and methods for biopolymers and their application to study glycobiology, protein post-translational modifications, protein misfolding disorders, cardiovascular and infectious diseases, and bioactive lipids. She has authored >375 scientific papers. She serves on multiple editorial and advisory boards. She is Immediate Past President of the International Mass Spectrometry Foundation; she was President of ASMS in 2002-04 and International HUPO in 2011-12. She has been a Councilor for the NESACS since 1989 and was Chair of the section in 2014. She is a Board Member of the Malta Conferences Foundation. She has received several major awards in the fields of mass spectrometry, proteomics and chemistry and is a Fellow of the ACS and the AAAS.