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March 2020 Meeting

Northeastern Section
American Chemical Society
(NESACS)

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

Thursday – March 12th, 2020
Department of Chemistry
Huddleston Hall Ballroom (Map: I17)
University of New Hampshire
73 Main Street, Durham, NH 03824

4:30 pm – 5:30 pm	NESACS Board Meeting (Lamprey Board Room, Holloway Commons Building Map: I16)
5:30 pm – 6.30 pm	Social Hour (Huddleston Hall Ballroom (Map: I17)
6:30 pm – 7:30 pm	Dinner (Huddleston Hall Ballroom (Map: I17)
7:30 pm – 8:30 pm	Monthly Meeting Featuring Prof Catherine Costello, Boston University School of Medicine, Boston, MA (Huddleston Hall Ballroom (Map: I17)

YOU MUST REGISTER IN ADVANCE TO ATTEND THE MEETING: THERE IS NO REGISTRATION FEE TO ATTEND THE MEETING; DINNER RESERVATIONS ARE REQUIRED. PUBLIC IS INVITED.

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- For those who would like to join us for dinner, register by 5pm, Thursday, March 5th, at https://NESACSmarchmeeting.eventbrite.com. Cost: Members, $30; Non-members, $35; Retirees, $20; Students, $10. Dinner reservations not cancelled at least 24 hours in advance will not be refunded. Reservations for new members and for additional information contact the Administrative Coordinator, Anna Singer, via e-mail at secretary@nesacs.org.
- If you wish to join us for this meeting and not eat dinner, please register by 5pm, Thursday, March 5th, at https://NESACSmarchmeeting.eventbrite.com Select "Seminar only".
- Directions to UNH: use GPS to the following address **73 Main Street, Durham, NH 03824.** Parking is available in the Campus Crossing lot (**6 Mill Road, Durham NH 03824**) or there are a limited number of spots along Main Street in front of Huddleston Hall - both are pay by the hour. A campus map is available here:
- https://www.unh.edu/sites/default/files/departments/facilities/Maps/s_uu_dwg_map_camp_sm_map_2018_campus_map_with_index.pdf

If you have any questions or require additional information, contact the Administrative Coordinator, Anna Singer, via email at secretary@nesacs.org.

If you have any questions or require additional onsite information, contact Christine Caputo via email at christine.caputo@unh.edu

*We wish to thank **UNH, Professor Wayne Jones,** and **Professor Christine Caputo** for hosting and organizing this event.*

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.