Distinguished Lecture Series to feature talk by Melissa Moore

By Suchandra Bhattacharjee

The next NIEHS distinguished lecture of 2014 will be presented by Melissa Moore, Ph.D., March 11, at 11:00 a.m., in Rodbell Auditorium. The talk on "Assembly and Dynamics of Uber Complex RNPs" is being hosted by Karen Adelman, Ph.D., head of the NIEHS Transcriptional Responses to the Environment Group.

Moore is sure to have good advice for the fellows who will join her for lunch during her visit to NIEHS. "I never started out to work on RNA, but that's where I've happily ended up," she is quoted as saying in her HHMI biography. (http://www.hhmi.org/scientists/melissa-j-moore) . "Sometimes when students talk to me, they seem to think they need to have their entire future planned out from the start. But they don't. I certainly didn't." (Photo courtesy of Melissa Moore)

Moore
(http://profiles.umassmed.edu/Profiles/display/129823)
is the Eleanor Eustis Farrington Chair of Cancer Research, and co-director of both the RNA Therapeutics Institute (RTI) and the Neurotherapeutics Institute (NTI) at the University of Massachusetts (UMass) Medical School. She is also a Howard Hughes Medical Institute investigator**.** Moore was instrumental in starting Neurodegenerates, a group of faculty representing several disciplines that meets regularly to discuss and collaborate on neurodegeneration. The meetings led to the formation of the NTI.

Linked Video

Watch a video about the cross-disciplinary collaborations Moore and colleagues have established to advance their studies of neurodegeneration (03:40)

The Moore laboratory at UMass focuses on eukaryotic RNA processing and metabolism**.** Her work involves posttranscriptional gene regulation in eukaryotes via mechanisms involving RNA, and centers on pre-mRNA processing and large RNA-protein (RNP) complexes to study their basic structures and functions, as well as their contributions to human disease.

Areas of investigation include single molecule analysis of spliceosome assembly; messenger RNP (mRNP) structure and function; RNP egress by nuclear envelope budding; and development of novel therapeutic approaches targeting RNA-based processes. Her research significantly spans the disciplines of cell and molecular biology, biochemistry, chemical biology, biophysics, and bioinformatics, for divergent insights into RNA metabolism.

As part of RTI, Moore is interested in understanding the molecular and cellular mechanisms of neurodegeneration, RNA metabolism, and local translation in neural degeneration, axon, and synapse loss after injury and in several diseases, including amyotrophic lateral sclerosis, Huntington's disease, Alzheimer's disease, Charcot-Marie-Tooth disease, Parkinson's disease, and traumatic brain injury.

Moore has published 95 peer-reviewed articles and reviews that are highly cited, and has presented invited lectures worldwide. Among her other accolades, Moore has been awarded the Searle Scholars Program Award, David and Lucile Packard Foundation Fellowship Award, Harcourt General Charitable Foundation New Investigator Award, and American Society for Biochemistry and Molecular Biology William C. Rose Award.

(Suchandra Bhattacharjee, Ph.D., is a special volunteer in the NIEHS Free Radical Metabolism Group**)**

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