Is Pleased To Announce a Seminar
Presented By

Dr. Christopher D. Lima
Member, Professor, and Chair, Structural Biology Program, Sloan Kettering Institute
Professor of Biochemistry and Structural Biology, Weill Graduate School of Medical Sciences,
Cornell University

"Helicase-dependent RNA processing and decay by the eukaryotic RNA exosome"

Friday, January 24, 2020, 4:00 pm
National Weather Center, Room 1313

Biography: Dr. Lima earned his Ph.D. degree from Northwestern University working with Dr. Alfonso Mondragón to determine the structure and mechanism of DNA topoisomerase I. He then moved to Columbia University for his postdoctoral studies with Dr. Wayne A. Hendrickson where he characterized the structure and catalytic mechanism of Human FHIT (fragile histidine triad) protein. Dr. Lima started his independent career in 1998 as an Assistant Professor at Cornell University. He became an Associate Member of the Structural Biology Program at the Sloan Kettering Institute in 2003. Currently he maintains his appointments as a Professor at Cornell University as well as a member and Professor of the Sloan Kettering Institute, where he is Chair of the Structural Biology Program. He has also been an Investigator of the Howard Hughes Medical Institute since 2013. His research focuses on several aspects of quality control of proteins and RNA, which include (i) structural, biochemical, and functional basis for macromolecules involved in post-translational protein modification by ubiquitin and ubiquitin-like proteins, and (ii) pathways that contribute to co- and post-transcriptional RNA maturation, processing and decay. Dr. Lima was elected to the American Academy of Arts and Sciences in 2017. He has served as a reviewer and chair on several NIH grant review panels, is the editor for the journal Structure, and has organized several scientific conferences. He has received several other honors including Alfred P. Sloan Endowed Chair (2019), the Louise and Allston Boyer Young Investigator Award (2006), Rita Allen Scholar (2003-2006), Mayor’s Award for Excellence in Science and Technology (2003), and the Beckman Young Investigator Award (1999-2002).

For more information, see his webpage at http://www.limalab.org

Refreshments will be served at 3:45 pm
REMINDER ~ WEAR YOUR ID

Please join us for a reception at 5:15 pm in the first floor atrium of SLSRC (near Element’s Cafe)
ABSTRACT

Helicase-dependent RNA processing and decay by the eukaryotic RNA exosome

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RNA decay and quality control ensures that RNA is cleared from cells after it is used or if it is found to be defective in function. The RNA exosome is a multi-subunit exoribonuclease complex that contributes to nuclear RNA processing or decay in reactions that require a non-catalytic nine subunit core, two associated ribonucleases, Rrp44 (aka Dis3) and Rrp6, and the activities of other co-factors that link the RNA exosome to helicase-dependent processing complexes that prepare and present RNA substrates for processing and/or degradation. Results will be presented from ongoing biochemical and structural studies aimed at understanding how RNA exosome cofactors coordinate the activities of the RNA exosome in pathways that are central to RNA decay and quality control.

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