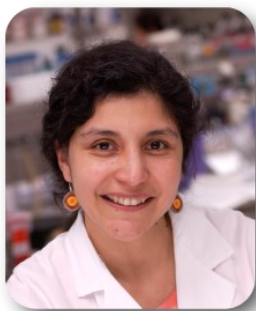




The Eppley Institute for
Research in Cancer and Allied
Diseases Presents the:

*Seventh Structural Bi-
ology and Molecular Biophysics*

Time	Location	Workshop Events for Thursday July 13, 2017
8:30am	PDD Atrium	Pick up registration materials and set up posters Continental breakfast provided
9:30am	PDD 2006	“From fluctuations to function: the role of dynamics in the mechanism of protein synthesis by the ribosome” Presented by Dr. Ruben Gonzalez Jr.
10:30am	PDD 2006	“Development of synthetic targeted RNA reagents (aptamers) to proteins involved in disease” Dr. Paloma Giangrande
11:30am	PDD 2006	“Integrative molecular modeling across the scales of molecular-level interactions to cellular systems and multi-cellular structures of medical interest” - Dr. José Onuchic
12:30pm	PDD Atrium	Lunch & Learns (12:45 - 1:30), Corporate Sponsor Displays <i>Malvern</i> “Characterization of biomolecule binding and stability with microcalorimetry” <i>Xenocs</i> “The BioXolver – an Advanced Tool for Protein Solution Scattering in the Lab and the Synchrotron” <i>Thermo Fisher Scientific</i> “Mass Spectrometry” <i>Rigaku</i> “In situ crystallography – practical considerations and examples”
2:00pm	PDD 2006	“Research on misfolding and amyloid formation in light chain amyloidosis and the proteome of amyloid deposits” - Dr. Marina Ramirez-Alvarado
3:00pm	PDD 2006	“High-resolution multi-dimensional NMR experiments of large RNA molecules (ribozymes)” Dr. Arthur Pardi
4:00pm	PDD Atrium	Poster Session, Poster Prize and Corporate Sponsor Displays with beverages and light snacks
6:00pm		Workshop finished.



**Marina Ramirez-Alvarado ,
Ph.D.**
*Professor of Biochemistry and
Molecular Biology
Mayo Clinic*

Marina Ramirez-Alvarado is a Mexican-born US biophysicist. She received a bachelor's degree in biochemistry and a master's in biotechnology from the Universidad Nacional Autonoma de Mexico. She then studied for her Ph.D. at the European Molecular Biology Laboratory in Heidelberg, Germany. She conducted postdoctoral research at Yale Univ. and started as an assistant professor at the Mayo Clinic 15 years ago. She is an internationally-recognized expert in the biophysics of light chain amyloidosis, an understudied and fatal misfolding disease.



Arthur Pardi , Ph.D.
*Professor
Department of Chemistry and
Biochemistry
University of Colorado Boulder*

Arthur Pardi studied Chemistry at the Univ. of California, San Diego, where he obtained an A.B. in Chemistry in 1976. He received his Ph.D. in Chemistry from the Univ. of California, Berkeley, in 1980 working with Ignacio Tinoco where he used biophysical methods to study the thermodynamic and kinetic properties of DNA and RNA duplexes. He then did a postdoctoral fellowship with Kurt Wüthrich at the ETH, Zürich, performing 2D NMR studies of protein and DNA systems. He joined the faculty in the Dept. of Chemistry and Biochemistry at the Univ. of Colorado, Boulder in 1988. His research currently uses NMR spectroscopy to study nucleic acid aptamers that are potent inhibitors of the angiogenic protein VEGF and single-molecule fluorescence spectroscopy techniques to probe the kinetics of folding of RNAs. Research awards include: Searle Scholar Award, Johnson & Johnson Discovery Research Award, NIH Research Career Development Award and NIH Merit Award.



Paloma Giangrande, Ph.D.
*Associate Professor
Internal Medicine
University of Iowa*

Paloma Giangrande is an internationally recognized expert in drug design and delivery. She obtained her Ph.D. in Pharmacology and Cancer Biology at Duke Univ. in 1999. Her first postdoctoral position was in genetics under the guidance of Joseph Nevins, where she elucidated the roles of E2F transcription factors in cell cycle control. In 2004, she became interested in translational research and joined Bruce Sullenger's lab in the Dept. of Surgery at Duke where she focused on developing RNA aptamers for targeted therapies. In 2007 she joined the Dept. of Internal Medicine at the Univ. of Iowa. Dr. Giangrande's research focuses on elucidating mechanisms of deregulated cell growth and survival and applying this knowledge to develop cell-targeted therapies ("smart drugs") with improved efficacy and safety profiles over current drugs in the clinic. The technology she developed and pioneered employs RNA bio-drugs that deliver potent drug payloads to diseased cells for treating diseases such as cancer, cardiovascular disease, diabetes and critical illness.



José Onuchic , Ph.D.
*Professor
Harry C & Olga K Wiess Chair
of Physics
Rice University*

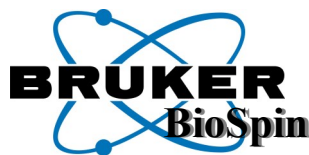
José Onuchic is a computational leader working to create an integrated picture of a variety of biochemical and biological systems. He is Professor of Physics and Astronomy, Chemistry and Biosciences at Rice Univ. He is also the co-Director of the NSF-sponsored Center for Theoretical Biological Physics and a CPRIT Scholar in Cancer Research (Cancer Prevention and Research Institute of Texas). His research has expanded across the scales of molecular-level interactions to cellular systems to organized multicellular structures. His interests include medical applications focusing on cancer, the theory of chemical reactions in condensed matter with emphasis on biological electron transfer, stochastic effects in genetic networks, and chromatin folding and function. His landmark research has introduced the concept of protein folding funnels as a mechanism for the folding of proteins, convergent kinetic pathways, or folding funnels, and guide folding to a unique, stable, native conformation. Energy landscape theory and the funnel concept provide the theoretical framework needed to pose and to address the questions of protein folding and function mechanisms. Awards include: International Centre for Theoretical Physics Prize in honor of Werner Heisenberg in Trieste, Italy, Beckman Young Investigator Award, American Physical Society Fellow, American Academy of Arts and Sciences Fellow, Brazilian Academy of Sciences Fellow, Einstein Professorship by the Chinese Academy of Sciences (CAS), Fellow of the Biophysical Society, Diaspora Prize from the Ministry of Foreign Affairs and the Ministry of Industrial Development and Foreign Trade from Brazil and the International Union of Biochemistry and Molecular Biology (IUBMB) Medal. José is a member of the National Academy of Sciences, USA.



Ruben Gonzalez Jr., Ph.D.
*Department of Chemistry
Columbia University*

Ruben Gonzalez is a first-generation Cuban-American who graduated cum laude from Florida International Univ. (FIU) with a B.S. in Chemistry and Biochemistry in 1995. He received his Ph.D. in Chemistry from the Univ. of California, Berkeley in 2000 under the guidance of Ignacio Tinoco. He then conducted postdoctoral research at Stanford Univ. as an American Cancer Society Postdoctoral Fellow with Joseph Puglisi and Steven Chu. Ruben helped integrate expertise from Puglisi's and Chu's laboratories in order to pioneer the first single-molecule fluorescence investigations of the ribosome, the universally-conserved RNA-based molecular machine responsible for protein synthesis in all living cells. Professor Gonzalez joined the Dept. of Chemistry at Columbia Univ. in 2006. Research currently focuses on the biophysical chemistry and biochemistry of nature's molecular machines, with significant emphases on fundamental biological processes executed by RNA- and ribonucleoprotein (RNP)-based machines. Research awards include: Burroughs Wellcome Fund Career Award in the Biomedical Sciences, NSF CAREER Award, American Cancer Society Research Scholar Award, Columbia Univ. RISE Award, Distinguished Columbia Faculty Award, Camille Dreyfus Teacher-Scholar Award. Most recently, Ruben was selected as a "Scientist to Watch" by The Scientist and as a finalist for a Blavatnik National Award for Young Scientists.

The *Sixth Structural Biology and Molecular Biophysics Workshop* would not have been possible without the generous contributions of the following corporate sponsors:



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