Tri-Institutional PhD Program
Chemical Biology

20TH ANNUAL TRI-INSTITUTIONAL CHEMICAL BIOLOGY SYMPOSIUM

Wednesday, August 14th, 2024
9:00 am – 6:30 pm

Carson Family Auditorium
Collaborative Research Center, Rockefeller University
1230 York Ave, New York, NY 10065

Memorial Sloan Kettering Cancer Center
The Rockefeller University 1901 — SCIENCE FOR THE BENEFIT OF HUMANITY
Weill Cornell Medicine

Schedule of Events

9:00 – 9:15 am	**Welcome Remarks** Anoosha Banerjee, Karl Lin, Kaylyn Spotton *TPCB Symposium Planning Committee*	Carson Family Auditorium
9:15 – 10:00 am	**Intracellular Electrophysiology** Prof. Yamuna Krishnan *University of Chicago*	
10:05 – 10:25 am	**Using Chemical Proteomics and Structural Approaches to Examine the Coupling of Unfoldase and Deubiquitinase Activities** Lauren Vostal, TPCB Student *Tarun Kapoor Lab, Rockefeller University*	
10:30 – 10:40 am	**Break**	
10:45 – 11:05 am	**Photoredox-Mediated Direct Conversion of Carboxylic Acids to 3-Oxetanol Bioisosteres** Christopher Nieves Escobar, TPCB Student *Derek Tan Lab, Sloan Kettering Institute*	
11:10 – 11:55 am	**Metabolic and Genetic Control of Mammalian Physiology** Prof. Jonathan Long, Ph.D. *Stanford University*	
12:00 – 1:00 pm	**Lunch** Lunch will be provided outside of Carson.	
1:15 – 2:05 pm	**Poster Session 1**	Abby Aldrich Dining Hall
2:05 – 2:25 pm	**Coffee Break**	
2:25 – 3:15 pm	**Poster Session 2**	
3:30 – 4:15 pm	**Comparative Degradomics Identifies Impaired Protein Degradation in Cancer** Prof. Heeseon An, Ph.D. *Sloan Kettering Institute*	Carson Family Auditorium
4:20 – 4:40 pm	**Structural Basis of Allosteric Modulation in mGluR Activation and Internalization** Alexa Strauss, TPCB Student *Joshua Levitz Lab, Weill Cornell Medicine*	
4:45 – 5:30 pm	**Co-translational Protein Folding: Two Single Molecule Stories** Prof. Carlos Bustamante, Ph.D. *University of California, Berkeley*	
5:30 – 5:45 pm	**Poster Prize Award Ceremony & Closing Remarks** Derek Tan, Ph.D., TPCB Director and TPCB Symposium Planning Committee	
5:45 – 6:30 pm	**Reception**	Abby Aldrich Reception Hall

Tri-Institutional PhD Program in Chemical Biology (TPCB)

TPCB is a leading PhD graduate program in chemical biology, offered jointly by three premier institutions in New York City, Memorial Sloan Kettering Cancer Center, The Rockefeller University, and Weill Cornell Medical College. We provide an unparalleled combination of world-class faculty, state-of-the-art facilities, and collaborative research opportunities to the next generation of scientific leaders working at the interface of chemistry, biology, and medicine.

TPCB is strongly committed to diversity and inclusion. We welcome scientists from underrepresented minority groups and disadvantaged backgrounds, and those with disabilities. We do not tolerate racism, discrimination, or harassment of any kind. All attendees are expected to maintain the highest standards of professional conduct throughout the symposium.

For more information, please visit: https://chembio.triiprograms.org/

Tri-Institutional PhD Program
Chemical Biology

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Organic & Biomolecular Chemistry

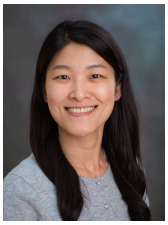
Keynote Speakers

Prof. Yamuna Krishnan, Ph.D.

Yamuna Krishnan is the Louis Block Professor of Chemistry and the College, at the University of Chicago. She obtained her B.Sc. in Chemistry at the University of Madras. She completed her M.S and Ph.D. in Organic Chemistry at the Indian Institute of Science, Banglore with Prof. Sandhya Visweswariah, creating molecular tools to explore the complex chemical landscape of the intracellular environment. After her doctoral studies, she went to the Department of Chemistry at the University of Cambridge to pursue postdoctoral work as an 1851 Research Fellow. In 2005, she returned to Bangalore, India where she rose through the ranks at the National Center for Biological Sciences. Shortly after her promotion to Associate Professor, she moved to the University of Chicago in 2014 as a tenured professor of chemistry. Her laboratory currently develops nucleic acid-based nanodevices as fluorescent reporters to quantitatively image cells and *in vivo* models in real-time. She has been recognized in Cell's 40 under 40 and awarded the Infosys Prize for Physical Sciences.

Prof. Jonathan Long, Ph.D.

Jonathan Long is an Associate Professor of Pathology and an Institute Scholar at Stanford ChEM-H (Chemistry, Engineering & Medicine for Human Health). He completed his B.A. in Biochemistry at Columbia University. After his undergraduate studies, he joined the laboratory of Prof. Benjamin F. Cravatt at the Scripps Research Institute, where he studied enzymes involved in mammalian neurotransmission and behavior. After his Ph.D., he moved to Boston first as a postdoctoral fellow and then later as Instructor of Cell Biology under the guidance of Dr. Bruce M. Spiegelman at the Dana-Farber Cancer Institute and Harvard Medical School. There, he investigated the biochemical and bioenergetic basis of mammalian energy metabolism. Later in 2018, he joined Stanford University where his laboratory seeks to discover new molecules and pathways that can be translated into therapeutic opportunities for obesity, metabolic disease, and other age-associated chronic diseases. Several awards from the Alfred P. Sloan Foundation, the National Institute of Health, and the American Diabetes Association have recognized the work of his laboratory.



Prof. Heeseon An, Ph.D.

Heeseon An is an Assistant Member of the Chemical Biology Program at the Sloan Kettering Institute (SKI) for Cancer Research within Memorial Sloan Kettering Cancer Center (MSKCC). She received her B.S. and M.S. in Chemistry at Seoul National University under the guidance of Prof. Seung Bum Park. After briefly working as a Researcher in Emulsion Chemistry at Amorepacific R&D Center in South Korea, she pursued her Ph.D. in Chemistry at Northwestern University. In the laboratory of Prof. Alexander V. Statsyuk, she developed chemical probes and small molecule inhibitors to understand the intricacies of the ubiquitin-proteasome system. She later conducted her postdoctoral training in quantitative cell biology with Prof. J. Wade Harper at Harvard Medical School, where she investigated the quality control mechanisms of ribosomes and organelles. In 2021, she joined the faculty at SKI where her laboratory applies multidisciplinary strategies encompassing chemical biology, cell biology, and proteomics to elucidate proteome dynamics under normal physiological and pathological states.

Prof. Carlos Bustamante, Ph.D.

Carlos Bustamante is an HHMI investigator and the Raymond and Beverly Sackler Professor in Biophysics at the University of California, Berkeley (UC Berkeley). He received his B.S. from Universidad Peruana Cayetano Heredia and his M.S. in Biochemistry from Universidad Nacional Mayor de San Marcos in Peru. Later, he began his Ph.D. in Theoretical Biophysics at UC Berkeley where he studied under Prof. Ignacio Tinoco, Jr., where he studied the optical activity of nucleic acids. Following his doctoral studies, he briefly continued his postdoctoral training with Dr. Marcos Maestre at the Lawrence Berkeley Laboratory, developing circular polarization microscopy methods. In 1982, he started his independent career at the University of New Mexico. He later moved to the University of Oregon as an HHMI investigator, and in 1998, he returned to his alma mater. Currently, his laboratory develops methods of single-molecule manipulation to understand the mechanical properties of macromolecules. He has received numerous awards and accolades from the Alfred P. Sloan Foundation, the American Physical Society, and the National Academy of Sciences.