



Tri-Institutional PhD Program
Chemical Biology

19TH ANNUAL TRI-INSTITUTIONAL CHEMICAL BIOLOGY SYMPOSIUM

**Wednesday, September 6th, 2023
9:00 am – 6:30 pm**

**Zuckerman Research Center Auditorium
Memorial Sloan Kettering Cancer Center
417 E 68th St, New York, NY 10065**



Memorial Sloan Kettering
Cancer Center



SCIENTIA • PRO • BONO • HUMANI • GENITIBUS
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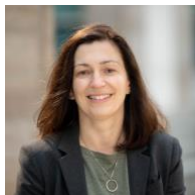
**Weill Cornell
Medicine**

Schedule of Events

- 9:00-9:15 am** **Welcome Remarks**
Giorgos Hiotis, Victoria Jordan, Yang Xiao
TPCB Symposium Planning Committee
- 9:15-10:00 am** **Nascent Peptide Recognition by the Ribosome Targeting Antibiotics**
Prof. Danica Fujimori, Ph.D.
University of California, San Francisco
- 10:05-10:25 am** **Tumor Microenvironment Gated CAR T Cells Prevent On-Target Off-Tumor Toxicity**
Kristen Vogt, TPCB Student
David Scheinberg Lab & Daniel Heller Lab, Memorial Sloan Kettering Cancer Center
- 10:30-10:40 am** **Coffee Break**
- 10:45-11:05 am** **Cam1 Mediates Membrane Depolarization To Provide Phage Defense During the Type III CRISPR-Cas Immune Response**
Christian Baca, TPCB Student
Luciano Marraffini Lab, Rockefeller University
- 11:10-11:55 am** **Probing the Regulation of Sub-Kilobase Chromatin Folding by Linker Histones**
Prof. Viviana Risca, Ph.D.
Rockefeller University
- 12:00-1:00 pm** **Lunch break – box lunches provided at ZRC Room 105**
- 1:15-3:15 pm** **Poster Session (ZRC Lobby)**
- 3:30-4:15 pm** **Chemical Dissection of the Cell Cycle**
Prof. Jorge Torres, Ph.D.
University of California, Los Angeles
- 4:20-4:40 pm** **Tunable Gene Expression in Mammalian Cells by Acyclovir-Regulated Alternative Splicing of SMN1 Exon 7 Minigene Cassette**
Qian Hou, TPCB Student
Samie Jaffrey Lab, Weill Cornell Medicine
- 4:45-5:30 pm** **Following the Rabbit into Chemical Space**
Prof. Brian Shoichet, Ph.D.
University of California, San Francisco
- 5:30-5:45 pm** **Poster Prize Awards & Closing Remarks**
Derek Tan, Ph.D., TPCB Director
and TPCB Symposium Planning Committee
- 5:45-6:30 pm** **Reception**

Keynote Speakers

Prof. Danica Fujimori



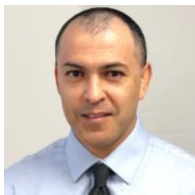
Prof. Danica Fujimori is a Professor of Cellular and Molecular Pharmacology and Pharmaceutical Chemistry, associate director of Quantitative Biosciences Institute, and associate director of the Chemistry and Chemical Biology graduate program at the University of California in San Francisco (UCSF). Prof. Fujimori completed her undergraduate education at University of Belgrade, receiving a B.Sc. in Chemistry. She completed her Ph.D. in Chemistry at University of Illinois Urbana-Champaign with Prof. David Gin and Prof. Wilfred van der Donk where she developed new methods for chemoselective carbohydrate-peptide ligations. Prof. Fujimori continued her research as a Damon Runyon Cancer Research Foundation postdoctoral fellow in the lab of Prof. Christopher Walsh at Harvard Medical School where she focused on the characterization of a class of nonheme Fe (II) halogenases, capable of carrying out halogenation of unactivated carbon centers. She started her independent career at UCSF in 2008. Her lab combines organic chemistry and biochemical reconstitution to investigate enzymatic mechanisms and regulatory roles of posttranslational and posttranscriptional modifications. Her work has been recognized by several awards, including V Foundation Scholar Award, NSF Career Award, Searle Scholar, and WM Keck Medical Research Award.

Prof. Viviana Risca



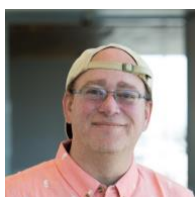
Prof. Viviana Risca is an Assistant Professor at The Rockefeller University. Prof. Risca received her B.S. in Physics from Stanford University. She completed her Ph.D. in Biophysics at the University of California, Berkeley with Prof. Daniel Fletcher where she studied actin filament branching and behavior under mechanical constraints. Following her Ph.D., Prof. Risca joined the labs of Prof. William Greenleaf and Prof. Aaron Straight at Stanford University School of Medicine where she developed RICC-seq, an *in situ* local chromatin structure mapping method, to map tri-nucleosome-level chromatin compaction genome-wide. She began her own lab at The Rockefeller University in 2019. The Risca lab investigates the 3-D architecture of chromatin and the basic biophysical mechanisms by which it defines and maintains stable states in the regulation of transcription and other DNA-based processes. Prof. Risca has been the recipient of several awards, including NIH Director's New Innovator Award, Rita Allen Foundation Scholar, and V Foundation Scholar Award.

Prof. Jorge Torres



Prof. Jorge Torres is a Professor of Biochemistry and the Vice Chair of Undergraduate Education at the University of California, Los Angeles (UCLA). Prof. Torres received his B.S. in Molecular, Cellular, and Developmental Biology from the University of California at Santa Barbara. He obtained his Ph.D. in Molecular Biology under the direction of Prof. Virginia Zakian at Princeton University where he studied how the Rrm3p DNA helicase promotes genomic stability. He conducted his postdoctoral work in the laboratory of Prof. Peter K. Jackson at the Stanford University School of Medicine and Genentech Inc., focusing on the ubiquitin proteasome system in cell cycle control and the proteomic and functional characterization of the mitotic spindle. In 2009, Prof. Torres joined the faculty in the Department of Chemistry and Biochemistry at UCLA. His lab's major focus is to understand how multiple mechanisms and enzymatic activities coordinate the formation of the mitotic microtubule spindle during cell division. Prof. Torres is the recipient of a variety of awards, including Hanson-Dow Faculty Award for Excellence in Teaching and being named in the Cell Press' List of 100 Inspiring Hispanic/Latinx Scientists in America.

Prof. Brian Shoichet



Prof. Brian Shoichet is a Professor of Pharmaceutical Chemistry and the Co-Vice Dean of Graduate Pharmacy Education Programs at the University of California in San Francisco. He received a B.Sc. in Chemistry from MIT followed by doctoral work with Prof. Tack Kuntz at UCSF on molecular docking. He conducted his postdoctoral work with Prof. Brian Matthews at the Institute of Molecular Biology as a Damon Runyon Fellow, using protein crystallography, mutagenesis, and biophysics to investigate a trade-off between enzyme activity and stability. He later joined the faculty at Northwestern University in the Department of Molecular Pharmacology & Biological Chemistry as an assistant professor in 1996. He was promoted to associate professor in 2002 and shortly thereafter was recruited back to UCSF. The Shoichet lab seeks to discover chemical reagents that can illuminate biological problems by exploiting protein structures to predict new reagents and therapeutic leads (structure-based ligand discovery). Prof. Shoichet is the recipient of numerous awards, including the DeLano Award for Computational Biosciences, Society for Biomolecular Sciences Accomplishment Award, and NSF Career Award.

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.

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