



CELEBRATING 20 YEARS OF

IMPACT

SALTIEL LIFE SCIENCES SYMPOSIUM

MAY 20 & 21, 2024

TWENTY-SECOND ANNUAL LSI SYMPOSIUM

KAHN AUDITORIUM, BSRB
109 Zina Pitcher Place, Ann Arbor



SCHEDULE

MONDAY,
MAY 20, 2024

9:00 A.M.

Welcome

Roger D. Cone, Ph.D., U-M Life Sciences Institute

Mary Sue Coleman, Ph.D., President Emerita of the University of Michigan

9:15 A.M.

Mary Sue and Kenneth Coleman Life Sciences Lecture: Genetics of hemostasis — From bedside to bench and back again

David Ginsburg, M.D., U-M Life Sciences Institute

10:10 A.M.

Break

SESSION 1

10:25 A.M.

Biological mechanisms at the finest scale — Insights from structural biology

Session Chair: **Janet Smith, Ph.D.**, U-M Life Sciences Institute

Chasing G protein-coupled receptors with electron microscopy

Georgios Skiniotis, Ph.D., Stanford University

Adapter control mechanisms of the p97/VCP AAA+ unfoldase

Dan Southworth, Ph.D., University of California, San Francisco

Structural consequences of receptor barcoding by GRK2 and GRK5

John J. G. Tesmer, Ph.D., Purdue University

Insights into neurodegeneration by in situ cryo-ET

Shyamal Mosalaganti, Ph.D., U-M Life Sciences Institute

Structural basis of mRNA translation initiation and its regulation in eukaryotes

Jay Brito Querido, Ph.D., U-M Life Sciences Institute

LSI ALUMNI TALKS STRUCTURAL BIOLOGY

12:10 P.M.

Session Chair: **Melanie Ohi, Ph.D.**, U-M Life Sciences Institute

Structural dynamics and specificity in RhoGEF signaling

Jen Cash, Ph.D., University of California, Davis

Molecular mechanism of IgM

Junyu Xiao, Ph.D., Peking University

12:45 P.M.

Lunch and poster session*

SESSION 2

2:15 P.M.

Exploring the building blocks of life — Cell and developmental biology

Session Chair: **Chelsey Spriggs, Ph.D.**, U-M Life Sciences Institute

The hematopoietic stem cell niche: Implications for bone marrow transplantation and regeneration

Sean J. Morrison, Ph.D., University of Texas Southwestern Medical Center

Satellite DNA divergence in speciation

Yukiko Yamashita, Ph.D., Whitehead Institute, Massachusetts Institute of Technology

Neutrophil signaling during acute inflammation

Carole Parent, Ph.D., U-M Life Sciences Institute

Why does receptor recycling between endosomes and the plasma membrane require multiple parallel pathways?

Lois Weisman, Ph.D., U-M Life Sciences Institute

3:40 P.M.

Break

3:55 P.M.

The LSI at 20: Origin and evolution of the Life Sciences Institute

Moderator: **Roger D. Cone, Ph.D.**, U-M Life Sciences Institute

Huda Akil, Ph.D., U-M Medical School

Liz Barry, J.D., Higher Education Consultant

Mary Sue Coleman, Ph.D., President Emerita of the University of Michigan

David Ginsburg, M.D., U-M Life Sciences Institute

Paul Meister, Novalis LifeSciences; Liberty Lane Partners, LLC

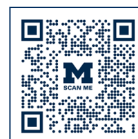
Alan Saltiel, Ph.D., University of California, San Diego

David Walt, Ph.D., Wyss Institute at Harvard University, Brigham and Women's Hospital

4:50 P.M.

Day 1 closing remarks — 20 years of impact at the LSI

Roger D. Cone, Ph.D.



*View the full list of poster titles and presenters

The **Mary Sue and Kenneth Coleman Life Sciences Lecture fund**, established by President Emerita Coleman and Kenneth Coleman, brings to campus international scientific leaders to share their research with U-M's broad life sciences community at the Saltiel Life Sciences Symposium.

SCHEDULE

TUESDAY, MAY 21, 2024

9:00 A.M.

Welcome

Roger D. Cone, Ph.D.

SESSION 3

9:10 A.M.

From cells to systems — The physiology of health and disease

Session Chair: **Jun Wu, Ph.D.**, U-M Life Sciences Institute

New functions of Notch signaling in B and T cell immunity

Ivan Maillard, M.D., Ph.D., University of Pennsylvania

TREM2+ macrophages at the crossroads of metabolic liver disease and cancer

Jiandie Lin, Ph.D., U-M Life Sciences Institute

A new mechanism in the regulation of energy homeostasis

Roger D. Cone, Ph.D., U-M Life Sciences Institute

10:35 A.M.

Break

LSI ALUMNI TALKS PHYSIOLOGY

10:45 A.M.

Session Chair: **Ken Inoki, M.D., Ph.D.**, U-M Life Sciences Institute

Scrambling in membrane balance and metabolic homeostasis

Xiao-Wei Chen, Ph.D., Peking University

Phasic/tonic glial GABA differentially transduce for olfactory adaptation and neuronal aging

Lijun Kang, Ph.D., Zhejiang University

Fishing for novel diagnostics and therapeutics for blood and cardiovascular disorders

Jordan Shavit, M.D., Ph.D., U-M Medical School

11:35 A.M.

Break for lunch (on your own)

SESSION 4

12:30 P.M.

Untangling the complexity of the nervous system — New frontiers in neuroscience

Session Chair: **Cheng-Yu Lee, Ph.D.**, U-M Life Sciences Institute

Decoding neuronal diversity: Tracking molecular changes along lineage progression

Tzumin Lee, M.D., Ph.D., U-M Life Sciences Institute

Neural control circuits of breathing patterns

Peng Li, Ph.D., U-M Life Sciences Institute

Protein-based sensors and tools for studying neuromodulatory systems

Wenjing Wang, Ph.D., U-M Life Sciences Institute

How do we sense the world? Lessons from the worm

Shawn Xu, Ph.D., U-M Life Sciences Institute

1:55 P.M.

Break

SESSION 5

2:05 P.M.

Catalyzing discovery — Innovation at the intersection of chemistry and biology

Session Chair: **Anna Mapp, Ph.D.**, U-M Life Sciences Institute

(I'm still trying to) Target protein stability to treat neurodegenerative diseases

Jason E. Gestwicki, Ph.D., University of California, San Francisco

Making connections between protein sequence space and chemical space

Alison Narayan, Ph.D., U-M Life Sciences Institute

Discovery and engineering of natural product molecules for drug discovery

David Sherman, Ph.D., U-M Life Sciences Institute

Ultrasensitive single-molecule detection platforms for biomarker discovery and beyond

Connie Wu, Ph.D., U-M Life Sciences Institute

3:30 P.M.

Break

SESSION 6

3:40 P.M.

Computation & artificial intelligence in the life sciences

Session Chair: **Jun Li, Ph.D.**, U-M Medical School

Mathematical and computational studies in human population genetics

Noah A. Rosenberg, Ph.D., Stanford University (video)

AI-based behavioral analysis for life sciences

Bing Ye, Ph.D., U-M Life Sciences Institute (video)

Algorithms to automate cryo-EM data collection

Michael Cianfrocco, Ph.D., U-M Life Sciences Institute

4:40 P.M.

Closing remarks

Janet Smith, Ph.D.

PRESENTER BIOGRAPHIES



Jay Brito Querido, Ph.D.

Research Assistant Professor, U-M Life Sciences Institute; Assistant Professor of Biological Chemistry, Medical School

After completing his Ph.D. at the University of Strasbourg, France, and postdoctoral research at the Laboratory of Molecular Biology in Cambridge, United Kingdom, Jay Brito Querido launched his independent lab at the University of Michigan in 2022. Here, he combines cryo-electron microscopy with biochemical and genetic approaches to study the role of RNA helicases in the initiation of mRNA translation in humans. He is an RNA Faculty Scholar in the Center for RNA Biomedicine and a member of the Rogel Cancer Center.



Jen Cash, Ph.D.

Assistant Professor of Molecular and Cellular Biology, University of California, Davis (LSI postdoctoral researcher, 2012–2020)

Jennifer Cash's area of expertise is in the structure and function of signaling proteins. She earned her Ph.D. in biochemistry and structural biology at the University of Cincinnati before pursuing postdoctoral research at the LSI. She trained in the labs of John Tesmer and Michael Cianfrocco, first with a focus on crystallography and then in cryo-EM, before launching her independent research program at UC Davis.



Xiao-Wei Chen, Ph.D.

Boya Distinguished Professor, College of Future Technology; Principal Investigator, Peking-Tsinghua Joint Center for Life Sciences, Peking University (LSI postdoctoral researcher, 2008–2013)

Before joining Peking University, Xiao-Wei Chen completed his postdoctoral training in the lab of David Ginsburg at the LSI. His research program now focuses on the fundamental mechanism and translational application of lipoprotein biology and lipid homeostasis. He is the recipient of the Young Investigator Award from the Chinese American Diabetes Association and Special Recognition Award from the Society of Heart and Vascular Metabolism, among other honors.



Michael Cianfrocco, Ph.D.

Research Assistant Professor, U-M Life Sciences Institute; Assistant Professor of Biological Chemistry, Medical School

Michael Cianfrocco's research program at the LSI explores cell biology through the lens of microtubule motor protein transport, while also developing new computational tools to streamline and enhance the power of cryo-electron microscopy to determine new and exciting structures. In particular, his lab aims to understand the molecular details determining how, where and when motor proteins transport intracellular cargo.



Roger D. Cone, Ph.D.

Mary Sue Coleman Director, U-M Life Sciences Institute; Vice Provost and Director, Biosciences Initiative; Professor of Molecular & Integrative Physiology, Medical School; Professor of Molecular, Cellular, and Developmental Biology, College of Literature, Science, and the Arts

Roger Cone's lab works on the central control of energy homeostasis. The team's primary interest is understanding how the central nervous system regulates energy storage, and the role of neural circuits in obesity, disease cachexia and anorexia nervosa. Cone has been recognized with numerous honors, including the Rolf Luft Award and election to the National Academy of Sciences and the National Academy of Medicine.



Jason E. Gestwicki, Ph.D.

Professor of Pharmaceutical Chemistry, Weill Institute for Neurosciences, University of California, San Francisco (LSI faculty member, 2005–2013)

Jason Gestwicki studies the mechanisms of protein homeostasis, with a focus on age-associated diseases of protein misfolding. His group has special expertise in building drug-like small molecules that target protein-protein interactions between molecular chaperones. He is an elected Fellow of the American Association for the Advancement of Science and the Cell Stress Society International, and was awarded the 2023 E. Thomas Kaiser Award from the Protein Society.

PRESENTER BIOGRAPHIES



David Ginsburg, M.D.

Research Professor, U-M Life Sciences Institute; James V. Neel Distinguished University Professor and Warner-Lambert/Parke-Davis Professor of Internal Medicine, Human Genetics and Pediatrics, Medical School

As a trained hematologist, David Ginsburg has built a long-standing research program exploring the fundamental biology and genetics of blood clotting. More recently, his lab has expanded into investigating the regulation of protein transport and the role of endothelial cells in regulating hemostasis and the vascular response to inflammation. Ginsburg is an elected member of the National Institute of Medicine, the National Academy of Sciences and the American Philosophical Society.



Lijun Kang, Ph.D.

Professor of Brain Science and Brain Medicine, Zhejiang University School of Medicine (LSI postdoctoral researcher, 2007–2011)

Lijun Kang trained as a postdoctoral fellow in the lab of Shawn Xu at the LSI before becoming a principal investigator at Zhejiang University School of Medicine. Employing an interdisciplinary strategy that integrates molecular genetics, optogenetics, calcium imaging, electrophysiology and behavioral tracking, Kang's research program is dedicated to unraveling the complex molecular mechanisms governing sensory perception — including olfaction, hearing and tactile sensation — utilizing *C. elegans* and other model organisms.



Tzumin Lee, M.D., Ph.D.

Peter D. Meister Professor of the U-M Life Sciences, Life Sciences Institute; Professor of Molecular, Cellular, and Developmental Biology, College of Literature, Science, and the Arts; Howard Hughes Medical Institute Investigator

Tzumin Lee is working to track genome states and neuronal lineages in various model organisms to reveal the genomic mechanisms that shape distinct brain characteristics of different species. Lee's research at the LSI builds on his previous work at the HHMI Janelia Research Campus, where he reconstructed the development of the fruit fly brain from individual neural stem cells to diverse neural types.



Peng Li, Ph.D.

Research Assistant Professor, U-M Life Sciences Institute; Assistant Professor of Biologic and Materials Sciences & Prosthodontics, School of Dentistry; Assistant Professor of Molecular & Integrative Physiology, Medical School

Peng Li's primary research interest is to understand the molecular and neural basis of breathing, a fundamental body function maintaining homeostasis. The Li lab integrates molecular genetics and neuroscience approaches to study how the brain interprets and responds to sensory cues and internal states to control breathing, and how this process could go awry in pathological condition, such as in sleep apnea and sudden infant death syndrome.



Jiandie Lin, Ph.D.

Bradley M. Patten Collegiate Professor of the Life Sciences; Research Professor, U-M Life Sciences Institute; Professor of Cell & Developmental Biology, Medical School

Jiandie Lin investigates mechanisms that regulate energy metabolism in cells and organisms, in particular transcriptional networks in the control of mitochondrial function, metabolic signaling, and glucose and lipid homeostasis. He is a Fellow of the American Association for the Advancement of Science and the recipient of the 2020 American Diabetes Association Outstanding Scientific Achievement Award.



Ivan Maillard, M.D., Ph.D.

Kevin Reitnauer Fox, MD Professor in Oncology; Vice-Chief for Research, Division of Hematology/Oncology, University of Pennsylvania Perelman School of Medicine (LSI faculty member, 2007–2018)

Ivan Maillard is a hematologist and physician-scientist with an interest in hematopoiesis, bone marrow transplantation, Notch signaling and lymphoid biology. Notable recognitions include career development awards from the American Society of Hematology and the Damon Runyon Foundation; membership in the American Society for Clinical Investigation and the Association of American Physicians; and the DuPont Guerrey IV Award for outstanding mentorship from the University of Pennsylvania's Department of Medicine.

PRESENTER BIOGRAPHIES



Sean J. Morrison, Ph.D.

Professor and Director, Children's Medical Center Research Institute, University of Texas Southwestern Medical Center; Howard Hughes Medical Institute Investigator (LSI faculty member, 2005–2011)

Sean Morrison's laboratory studies the mechanisms that regulate stem cell function and the ways in which those mechanisms get hijacked by cancer cells to enable tumor formation. He is an elected member of the National Academy of Medicine, the National Academy of Sciences and the European Molecular Biology Organization. Morrison has been active in public policy issues surrounding stem cell research, testifying before the U.S. Congress and serving as a leader in the successful Proposal 2 campaign to protect and regulate stem cell research in Michigan's state constitution.



Shyamal Mosalaganti, Ph.D.

Research Assistant Professor, U-M Life Sciences Institute; Assistant Professor of Cell & Developmental Biology, Medical School; Assistant Professor of Biophysics, College of Literature, Science, and the Arts

Shyamal Mosalaganti's work as a postdoctoral fellow at the European Molecular Biology Laboratory led to mapping the symmetric core of the human nuclear pore complex. At the LSI, Mosalaganti continues to investigate the architecture of protein complexes in near-native environments, with a special focus on understanding lysosomal function, positioning and inter-organellar crosstalk. He received the 2022 NIH Director's New Innovator Award.



Alison Narayan, Ph.D.

Mary Sue Coleman Collegiate Professor of the Life Sciences; Research Associate Professor, U-M Life Sciences Institute; Associate Professor of Chemistry, College of Literature, Science, and the Arts

Alison Narayan studies enzymes from secondary metabolite pathways with potential synthetic utility and develops methods based on these biocatalysts to enable access to biologically active target molecules. Narayan's work has earned her numerous awards and honors, including the Cottrell Scholar Award, the Alfred P. Sloan Research Fellowship, the Camille Dreyfus Teacher-Scholar Award and the Arthur C. Cope Scholar Award.



Carole Parent, Ph.D.

Research Professor, U-M Life Sciences Institute; Raymond and Lynne Ruddon Professor of Cancer Biology and Pharmacology, Professor of Cell & Developmental Biology, Medical School

Carole Parent's research interests focus on understanding how cells detect and respond to external chemotactic signals and, in particular, how the spatial and temporal relay of chemotactic signals between cells impacts single and group cell migration in the context of inflammation and cancer metastasis. She joined U-M after serving as deputy director of the Center for Cancer Research at the National Cancer Institute, where she earned the National Cancer Institute Director's Award, among other honors.



Noah A. Rosenberg, Ph.D.

Stanford Professor of Population Genetics and Society, Professor of Biology, Stanford University (LSI faculty member, 2005–2011)

Noah Rosenberg is a mathematical evolutionary biologist and population geneticist. His research group works in the areas of computational biology, human evolution, mathematical phylogenetics and statistical genetics. Rosenberg is a Fellow of the Association for the Advancement of Science.



Jordan Shavit, M.D., Ph.D.

Professor of Pediatrics and Human Genetics and Dorfman Family Professor of Pediatric Hematology/Oncology, U-M Medical School (LSI postdoctoral researcher, 2004–2009)

Jordan Shavit completed postdoctoral research in the lab of David Ginsburg before launching his independent lab in the U-M Medical School. His research interests are in clinically directed basic science, using genome editing in zebrafish to produce models of blood and cardiovascular disorders. He is an elected Fellow of the American Association for the Advancement of Science, the American Society for Clinical Investigation and the American Pediatric Society, and serves as the current Vice President/President-Elect of the Hemostasis and Thrombosis Research Society.

PRESENTER BIOGRAPHIES



David Sherman, Ph.D.

Research Professor, U-M Life Sciences Institute; Hans W. Vahlteich Professor of Medicinal Chemistry, College of Pharmacy; Professor of Microbiology & Immunology, Medical School; Professor of Chemistry, College of Literature, Science, and the Arts

David Sherman's research program aims to harness the tremendous capabilities of microorganisms to create complex molecules with the potential for use as new therapeutic treatments. His research explores the fundamental aspects of combinatorial biosynthesis while pursuing drug discovery opportunities for infectious diseases and cancer. He is a Fellow of the American Association for the Advancement of Science and recipient of the American Society of Pharmacognosy Norman R. Farnsworth Research Achievement Award, among other honors.



Georgios "Yiorgo" Skiniotis, Ph.D.

Professor of Molecular and Cellular Physiology, Structural Biology and Photon Science, Stanford University (LSI faculty member, 2008–2017)

Yiorgo Skiniotis' lab at Stanford focuses on the structural investigation of complexes involved in transmembrane signaling. He is also the scientific director of the Stanford Cryo-Electron Microscopy Center, which provides expertise, training and cryo-EM instrumentation to the scientific community. He has been recognized with honors including the Presidential Early Career Award for Scientists and Engineers and the Earl and Thressa Stadtman Scholar Award.



Daniel Southworth, Ph.D.

Professor, Institute for Neurodegenerative Diseases, Weill Institute for Neurosciences, University of California, San Francisco (LSI faculty member, 2011–2017)

Daniel Southworth launched his independent research career at the LSI, where his lab focused on understanding molecular chaperone-driven protein quality control mechanisms that are critical to protein folding and cellular stress responses. At UCSF, his lab continues to study protein quality control and neurodegenerative disease pathways, using biochemistry and cryo-electron microscopy methods to determine the structure and mechanism of chaperones and other molecular machines that are critical to proteome function and maintenance.



John J. G. Tesmer, Ph.D.

Distinguished Walther Professor of Cancer Structural Biology, Purdue University (LSI faculty member, 2005–2017)

John Tesmer's research program uses cryo-electron microscopy single particle analysis to investigate G protein-coupled receptor (GPCR) signaling pathways involved in cardiovascular disease and cancer. He is a Fellow of the American Association for the Advancement of Science and the American Society for Pharmacology and Experimental Therapeutics.



Wenjing Wang, Ph.D.

Research Assistant Professor, U-M Life Sciences Institute; William R. Roush Assistant Professor of Chemistry, College of Literature, Science, and the Arts

Wenjing Wang has an overarching research goal of designing novel molecular tools with widespread utilities across cell biology and neuroscience. Her lab uses cutting-edge protein engineering methods to optimize the overall performance of the tools and validates them in yeast cell cultures, mammalian cell cultures, neuronal cultures and animal models. She is the recipient of the NIH Director's New Innovator Award, the Camille Dreyfus Teacher-Scholar Award, the NSF CAREER Award and an Alfred P. Sloan Research Fellowship.



Lois Weisman, Ph.D.

Sarah Winans Newman Collegiate Professor of the Life Sciences; Research Professor, U-M Life Science Institute; Professor of Cell & Developmental Biology, Medical School

Lois Weisman researches the underlying causes of neurodegeneration and other neurological diseases. Her work focuses on myosin V based transport and phosphoinositide lipid signaling in yeast and neurons, with the goal of uncovering new, essential subcellular processes and determining how these impact human physiology. She is a Fellow of the American Association for the Advancement of Science and the American Society for Cell Biology.

PRESENTER BIOGRAPHIES



Connie Wu, Ph.D.

Research Assistant Professor, U-M Life Sciences Institute; Assistant Professor of Biomedical Engineering, College of Engineering

Connie Wu's lab develops technologies for biomarker signature discovery and RNA therapeutic delivery, with applications across cancer and other diseases. She completed her postdoctoral studies at Brigham and Women's Hospital and the Wyss Institute at Harvard University, where she pioneered ultrasensitive single-molecule detection methods that can measure attomolar protein concentrations with versatile multiplexing capabilities.



Junyu Xiao, Ph.D.

*Professor, School of Life Sciences, Peking University
(LSI graduate student, 2003–2008)*

Junyu Xiao earned his Ph.D. from the University of Michigan in 2008 under the mentorship of Zhaohui Xu at the Life Sciences Institute. After completing his postdoctoral research at the University of California, San Diego, Xiao established his independent research group in Peking University, where he is a professor in the School of Life Sciences and a principal investigator at the Peking-Tsinghua Center for Life Science.



Shawn Xu, Ph.D.

Bernard W. Agranoff Collegiate Professor of the Life Sciences; Research Professor, U-M Life Sciences Institute; Professor of Molecular & Integrative Physiology, Medical School

Shawn Xu studies sensory biology, aiming to understand how animals sense their external and internal world through various sensory systems. His awards and honors include the Pew Scholar Award, the Alfred P. Sloan Fellowship and being an elected Fellow of the American Association for the Advancement of Science.



Yukiko Yamashita, Ph.D.

*Professor of Biology, Massachusetts Institute of Technology; Core Member, Whitehead Institute; Howard Hughes Medical Institute Investigator
(LSI faculty member, 2007–2020)*

Yukiko Yamashita's research is centered on the mystery of germline immortality that supported the continuation of multicellular life for 1.5 billion years. Within this scope, she broadly studies asymmetric stem cell division, the maintenance of ribosomal DNA, and functions of satellite DNA in cell biology and evolution. Yamashita is a recipient of the Searle Scholar Award, the American Society for Cell Biology WICB junior award, the MacArthur Fellowship and the Tsuneko and Reiji Okazaki Award, and is an elected member of the American Academy of Arts and Sciences.



Bing Ye, Ph.D.

Burton L. Baker Collegiate Professor of the Life Sciences; Research Associate Dean and Research Professor, U-M Life Sciences Institute; Professor of Cell & Developmental Biology, Medical School

Bing Ye has a broad background in neuroscience, physiology, cell biology, developmental biology, genetics and computation. Ye's lab now studies how neuronal development contributes to the assembly and function of the nervous system and how defects in this process lead to brain disorders. The group takes a broad, multidisciplinary approach that include genetics, cell biology, developmental biology, biochemistry, advanced imaging, electrophysiology, computation and behavioral studies.

SESSION CHAIRS



Ken Inoki, M.D., Ph.D.

Roger C. Wiggins Collegiate Professor of the Life Sciences; Research Associate Professor, U-M Life Sciences Institute; Associate Professor of Internal Medicine and Molecular & Integrative Physiology, Medical School



Cheng-Yu Lee, Ph.D.

Robert H. Bartlett Collegiate Professor of the Life Sciences; Research Associate Professor, U-M Life Sciences Institute; Associate Professor, Internal Medicine and Cell & Developmental Biology, Medical School



Jun Li, Ph.D.

Professor & Associate Chair of Computational Medicine and Bioinformatics, Professor of Human Genetics, U-M Medical School



Anna Mapp, Ph.D.

Research Professor, U-M Life Sciences Institute; Associate Dean for Academic Programs and Initiatives, Rackham Graduate School; Edwin Vedejs Collegiate Professor of Chemistry, College of Literature, Science, and the Arts



Melanie Ohi, Ph.D.

Rowena G. Matthews Collegiate Professor of the Life Sciences; Research Professor and Cryo-EM Facility Faculty Director, Life Sciences Institute; Professor of Cell & Developmental Biology, U-M Medical School



Janet Smith, Ph.D.

Associate Institute Director, Rita Willis Professor of the Life Sciences and Center for Structural Biology Faculty Director, U-M Life Sciences Institute; Martha L. Ludwig Distinguished University Professor of Biological Chemistry, Medical School; Professor of Biophysics, College of Literature, Science, and the Arts



Chelsey Spriggs, Ph.D.

Research Assistant Professor, U-M Life Sciences Institute; Assistant Professor of Cell & Developmental Biology and Microbiology & Immunology, Medical School



Jun Wu, Ph.D.

Jessica Schwartz Collegiate Professor of the Life Sciences; Research Associate Professor, U-M Life Sciences Institute; Associate Professor of Molecular & Integrative Physiology and Internal Medicine, Medical School

"THE LSI AT 20" PANELISTS



Huda Akil, Ph.D.

Gardner C. Quarton Distinguished University Professor of Neurosciences, Professor of Psychiatry and Research Professor, Michigan Neuroscience Institute, U-M Medical School



Liz Barry, J.D.

Consultant and Executive Coach; former Special Counsel to the President of the University of Michigan; former Managing Director, Life Sciences Institute



Mary Sue Coleman, Ph.D.

President Emerita, University of Michigan



David Ginsburg, M.D.

Research Professor, U-M Life Sciences Institute; James V. Neel Distinguished University Professor and Warner-Lambert/Parke-Davis Professor of Internal Medicine, Human Genetics and Pediatrics, Medical School



Paul Meister

Partner, Novalis LifeSciences; Co-Founder, Liberty Lane Partners LLC; former Chair of Thermo Fisher Scientific; Co-Chair of the LSI Leadership Council



Alan Saltiel, Ph.D.

Professor and Director, Institute for Diabetes and Metabolic Health, University of California San Diego School of Medicine; former Director, Life Sciences Institute



David Walt, Ph.D.

Core Faculty Member, Wyss Institute at Harvard University; Hansjörg Wyss Professor of Biologically Inspired Engineering, Harvard Medical School; Professor, Brigham and Women's Hospital; Howard Hughes Medical Institute Professor; Founder, Illumina Inc. and Quanterix Corp.

ABOUT THE LIFE SCIENCES INSTITUTE

The Life Sciences Institute at the University of Michigan explores biological processes, structure and functions at the finest scale to create impact on a global scale. We are a catalyst of discovery, combining cutting-edge tools, next-generation training and inquisitive minds with diverse expertise and a shared purpose: to push science forward with intensity and urgency. From our work in chemical and structural biology to our breakthrough research in neuroscience and physiology, we embrace a fundamental knowledge of living systems at the level of the structure and function of biological molecules and cells to unleash maximal impact on the advancement of human health and well-being.

ABOUT THE ANNUAL SYMPOSIUM

In 2002, while construction of the institute was still underway, the LSI held its first symposium. The event continues to represent the LSI's most important values: excellence in science, investment in high-impact research and especially the synergy that happens when top scientists from a range of fields meet and share their work around a common theme.

In 2016, the annual LSI symposium was named the Saltiel Life Sciences Symposium thanks to an endowment made possible by the generous support of the LSI's faculty, Leadership Council, Scientific Advisory Board and friends. The name recognizes the leadership and scientific contributions made by former LSI Director Alan R. Saltiel during his 13-year tenure.

PAST SYMPOSIA

2023	Aging and Age-Related Diseases	2013	Exploring Epigenetics and RNA
2022	Viral Pathogens: Us vs. Them	2012	Development and Diseases of the Nervous System
2020	Broadening the Biosciences: Exploring Diverse Approaches to Biological and Biomedical Research	2011	Autophagy
2019	Protein Engineering & Biological Design	2010	Macromolecular Complexes in Cell Biology
2018	The Power of One: Frontiers in Single Cell Biology	2009	Evolutionary Biology
2017	Game Changers: Technologies that Are Rewriting the Future of the Life Sciences	2008	Focus on Chemical Biology
2016	Chemical Biology: Rise of the Cellular Machine	2007	Frontiers in Stem Cell Biology
2015	Defense Mechanisms in Life: From Bacteria to the Human Body	2006	Molecular Insights into Metabolic Disease
2014	Victors for Discovery: Biomedicine at Michigan	2005	Cancer Insights: Molecules to Medicine
		2004	Exploring the Complexity of Life
		2003	Genetic Insights into Biology and Disease
		2002	Structural Biology of Cell Signaling



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