BIOTHERAPEUTICS: The Science. The Politics. The Economics.

J. ALLYN TAYLOR International Prize in Medicine -2023-Robarts Research Institute

Daytime Symposium Program

J. ALLYN TAYLOR International Prize in Medicine 2023 Robarts Research Institute

WELCOME

Welcome to the 2023 J. Allyn Taylor International Prize in Medicine Symposium, where we're exploring the promise and pitfalls of biotherapeutics from a 360-degree perspective.

We are thrilled to present an exciting roster of leading experts who will delve into the science, the politics and the economics of this next generation of drug therapies, including this year's winner of the prestigious Taylor Prize, Nabil G. Seidah, PhD.

As new drug approvals for biotherapeutics steadily climb – and as we continue to witness their transformational treatment power in fighting disease – now is a pivotal time to invest in building our School's capacity in this realm. We are committed to strengthening our position in the biotherapeutics landscape by continuing strategic recruitment, fostering new collaborations and improving our ability to secure research grants to support this important work.

We are also continuing to plan for both the expansion and renewal of our faculty infrastructure. To expand our hubs for scientific discovery and learning that cut across disciplines, which will serve as a hub for scientific discovery and learning that cuts across disciplines and enable us to build on our existing strength in biotherapeutics.

We hope you'll enjoy today's stimulating discussions and that you will have a chance to connect with colleagues and experts who are on the leading edge of biotherapeutics discovery, development and application.

Thank you for joining us.

Robert Bartha, PhD

Vice Dean, Research & Innovation Schulich School of Medicine & Dentistry



AGENDA

8:30 a.m.	Doors open – coffee and networking reception
9:00 a.m.	Welcome & opening remarks
9:10 a.m.	Dr. Kun Ping Lu, PhD Navigating the frontiers of biotherapeutic discovery: Unraveling the science, challenges, and promise
9:40 a.m.	Lauren Cipriano, PhD Health economics and the opportunity cost of extraordinarily expensive biotherapeutics
10:10 a.m.	Coffee break
10:20 a.m.	Jennifer Quizi, PhD Lost in translation: The critical role of biomanufacturing in pre-clinical to clinical translation of novel biotherapeutics
10:50 a.m.	Rob Hegele, MD New and improved! Biological therapies for dyslipidemias
11:20 a.m.	The patient perspective – facilitated by Dr. Rob Hegele
11:30 a.m.	Coffee break
11:40 a.m.	Keynote presentation: Nabil G. Seidah, PhD The long and winding road leading to the discovery of the proprotein convertases and their translational applications in health and disease
12:20 p.m.	Q&A period - keynote
12: 30 p.m.	Closing remarks

THE J. ALLYN TAYLOR INTERNATIONAL PRIZE IN MEDICINE

Robarts Research Institute and the Schulich School of Medicine & Dentistry proudly present the annual J. Allyn Taylor International Prize in Medicine, one of Canada's most prestigious medical research prizes.

The prize, which consists of a cash award of \$40,000, is awarded to one or more individuals who have made significant contributions to basic or clinical research in a specific field.

Nominees include individual scientists or groups of scientists whose initiatives fall within a field of research, determined annually, that reflects a principal area of research at Robarts and the Schulich School of Medicine & Dentistry.

NABIL G. SEIDAH, PHD

Director, Biochemical Neuroendocrinology Research Unit, Montreal Clinical Research Institute |----

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Professor, Department of Medicine, University of Montreal

Nabil G. Seidah, PhD, is recognized worldwide as the scientist responsible for discovering and cloning seven of the nine known secretory serine proteases belonging to proprotein convertases. Proprotein convertases are essential to immune system regulation and have been proposed as therapeutic targets for viral infection, inflammation, hypercholesterolemia, and cancer.

With more than 820 peer-reviewed manuscripts, Seidah is cited as Canada's most recognized protease expert and sixth worldwide. As genetics and biopharmaceuticals continue accelerating as research fields, Seidah's discoveries will translate into improved therapies and personalized preventative treatments for age-related diseases.

Across a nearly 50-year career, Seidah has been decorated with numerous awards and recognitions. He has been a member of the Order of Quebec since 1997 and of the Order of Canada since 1999, an endowed Tier-1 Canada chair on Precursor Proteolysis since 2003, and is the winner of the 2021 Kuwait Award for Applied Medical Sciences.

Seidah is a full professor in the Department of Medicine at the Université de Montréal (UdeM) as well as a full research professor at the Institut de Recherches Cliniques de Montréal/Montreal Clinical Research Institute (IRCM). He is also the Director of the Biochemical Neuroendocrinology Research Unit within the Center for Cardiometabolic Health at the IRCM, where his group is exploring the clinical implications of the proprotein convertases in disease states, as for PCSK9 in hypercholesterolemia.

LEGACY OF GIVING THE STORY OF J. ALLYN TAYLOR

The C.H. Stiller Memorial Foundation and the family of the late J. Allyn Taylor, who was the founding Chair of the Board at Robarts Research Institute, generously support the J. Allyn Taylor International Prize in Medicine.

The support from the Foundation paid tribute to C.H. Stiller's memory and his remarkable personal legacy, as well as the outstanding achievements of J. Allyn Taylor.



SYMPOSIUM SPEAKERS



Kun Ping Lu, MD, PhD Professor, Department of Biochemistry, Schulich Medicine & Dentistry, Western University

Dr. Kun Ping Lu completed his medical degree at Fujian Medical University in Fuzhou, China, and pursued a master's program at Suzhou Medical College, which sparked an interest in cell-growth regulation.

He, along with his long-term collaborator Dr. Xiao Zhen Zhou and their team, have been largely responsible for the discoveries of Pin1catalyzed conformational regulation as a unique signaling mechanism in health and disease and as a new paradigm for improving therapeutic efficacy and specificity for cancer, dementia, and autoimmune disease.

Dr. Lu has earned many awards, including a member of the American Society for Clinical Investigation and the Association of American Physicians, and an AAAS Fellow of American Association for the Advancement of Science.



Lauren Cipriano, PhD

Associate Professor, Management Science, Ivey Business School, Western University

Associate Professor, Epidemiology and Biostatistics, Schulich Medicine & Dentistry, Western University

Lauren Cipriano, PhD, is an Associate Professor at the Ivey Business School and the Departments of Medicine and of Epidemiology & Biostatistics at Schulich School of Medicine and Dentistry at Western University where she holds the Canada Research Chair in Healthcare Analytics, Management, and Policy. She earned her PhD in Management Science and Engineering and MS in Statistics at Stanford University.

Cipriano's research focuses on the application of statistics, decision analysis, operations research, and systems analysis to health policy problems. Previously, she worked at the Institute for Technology Assessment at Massachusetts General Hospital. She was the 2018 winner of the Dr. Maurice McGregor Award for Health Technology Assessment and Lauren is the Deputy Editor of Medical Decision Making and MDM Policy & Practice.



SYMPOSIUM SPEAKERS



Rob Hegele, MD

Scientist, Molecular Medicine, Robarts Research Institute

Distinguished University Professor, Departments of Medicine and Biochemistry, Schulich Medicine & Dentistry, Western University

Dr. Rob Hegele cares for more than 2,500 patients in his lipid clinic at University Hospital in London, Ontario. His laboratory discovered the causal genes for more than 20 human diseases and has developed the world's first targeted next-generation sequencing panel for dyslipidemias. He was among the first in the world to use five medications now routinely prescribed to treat dyslipidemia or diabetes.

Dr. Hegele has published over 900 papers and is in the top one per cent of highly cited scientists worldwide. Expertscape.com in 2023 ranked him number one globally in "hypertriglyceridemia" focus areas and number two for "disorders of lipid metabolism."

He received the 2019 American Heart Association Lyman Duff Award and the 2020 Family Heart Foundation Pioneer Award. He has coauthored many clinical practice guidelines for cholesterol, blood pressure, and diabetes and has trained numerous physicians, medical students, and graduate students.



Jennifer Quizi, PhD

Investigator and Director, Biotherapeutics Manufacturing Centre, Virus Manufacturing Facility (BMC-VMF) The Ottawa Hospital Research Institute

Jennifer Quizi, PhD, is the Director of the Virus Manufacturing Facility within the Biotherapeutics Manufacturing Centre at the Ottawa Hospital Research Institute where she provides direction and sets strategic priorities as they apply to the development and GMP production of therapeutic viruses used in early phase clinical trials. She has worked as part of a translational team in cancer therapy for more than 10 years.

She also holds the position of Director, Biotherapeutics Manufacturing Operations, at BioCanRx, a federally funded Network of Centres of Excellence, where she is responsible for enabling the national rollout of a type of distributive manufacturing known as point-of-care, as well as working with facilities across Canada to build much needed, additional capacity in therapeutic virus biomanufacturing.

PAST J. ALLYN TAYLOR INTERNATIONAL PRIZE IN MEDICINE RECIPIENTS

- 2022: Xiaowei Zhuang, PhD 2021: Dr. Heather Dean 2019: Dr. Daniel J. Rader 2018: Dr. Istvan Mody 2017: Dr. V. Wee Yong 2016: Dr. Stephen Holgate Dr. Malcolm Sears 2015: Dr. Sanjiv S. Gambhir 2014: Dr. V. Lee Dr. J. Q. Trojanowski 2013: Dr. Salim Yusuf 2012: Dr. V. Reggie Edgerton 2011: Dr. Rudolf Jaenisch 2010: Dr. C. DeCarli 2009: Dr. G. FitzGerald 2008: Dr. M. Greenberg Dr. R. Nicoll 2007: Dr. R. Collins 2006: Dr. M.I. Greene 2005: Dr. R. Tsien 2004: Dr. R. Weissleder 2003: Dr. I. Weissman 2002: Dr. G. Bell Dr. R. Kahn Dr. Ake Lernmark
 - 2001: Dr. E. Lander Dr. C. Venter

- 2000: Dr. T. Hunter Dr. A. Pawson Dr. J. Schlessinger
- 1999: Dr. Folkman Dr. Gimbrone Jr.
- 1998: Dr. G. Bydder Dr. C. Mistretta
- 1997: Dr. B. Moss Dr. M. Oldstone Dr. B. Roizman
- 1996: Dr. C. Goodman Dr. T. Jessell
- 1995: Dr. J. Miller Dr. J. Sprent
- 1994: Dr. J. Gusella Dr. N. Wexler
- 1993: Dr. H. Barnett Dr. E. Braunwald Dr. L. Lasagna
- 1992: Dr. B. Siesjo
- 1991: Dr. H. McDevitt
- 1990: Dr. S. Snyder
- 1989: Dr. L. Crooks Dr. A. Margulis
- 1988: Dr. F. Mustard Dr. M. Packham
- 1987: Dr. P. Armitage Dr. A. Feinstein Dr. D. Sackett
- 1986: Dr. D. Bowen
- 1985: Dr. J. Borel

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Thank you for joining us for the 2023 J. Allyn Taylor International Prize in Medicine Symposium.

Details on the nomination process for the 2024 J. Allyn Taylor Prize will be available on **www.robarts.ca** in the new year.









Proudly supported by the C.H. Stiller Memorial Foundation and the Family of J. Allyn Taylor