

CLASS OF 2014

LIST OF NEW FELLOWS

Academy of the Arts and Humanities

DIVISION OF HUMANITIES



DAVEY, Frank – Department of English, Western University

Frank Davey is an internationally recognized scholar and a leading figure in exploring alternative and experimental theories of Canadian literature. His critical studies have transformed our understanding of language and discourse in the study of Canadian texts. Professor Davey's sustained efforts – as critic, theorist, editor, and poet – to enlarge and redirect Canadian literature studies have been essential contributions to its contemporary diversity and self awareness.



EISENBICHLER, Konrad – Department of Italian Studies, University of Toronto

Konrad Eisenbichler's ground-breaking research on early modern European culture, history, and sexuality has led to the establishment of "Confraternity studies" as a brand new field of interdisciplinary inquiry world-wide and to pioneering work in both sex/gender studies and women's studies. His discoveries in the archives of Italy, his prize-winning books, and his highly acclaimed articles have fundamentally rewritten our understanding of the Renaissance and inspired scholars in all humanistic disciplines.



EMBERLEY, Julia – Department of English, Western University

Julia Emberley is an internationally recognized scholar in the field of Indigenous literary and cultural studies. Working at the intersections of aboriginality, gender and decolonization, Prof. Emberley has published four monographs, guest edited two journal volumes, and authored over forty articles and book chapters. Her recent books include *Defamiliarizing the Aboriginal: Cultural Practices and Decolonization in Canada* (2007) and *The Testimonial Uncanny: Indigenous Storytelling, Knowledge and Reparative Practices* (2014).



KANAGANAYAKAM, Chelva – Department of English, University of Toronto

Chelva Kanaganayakam is a leading authority on South Asian literature and a major player in the development of postcolonial studies over the past 25 years. His vast body of work in English and Tamil extends to South Asian literary history, diaspora theory, and translation studies. He is professor of English and was for many years director of the Centre for South Asian Studies at the University of Toronto.



KLOPPENBORG, John – Department for the Study of Religion, University of Toronto

John Kloppenborg's innovative and influential approach to the study of early Christianity is characterized by careful, historically-grounded scholarship which attends in particular to the religious, social, and economic practices of non-elite sectors of the Roman world. He has spearheaded the use of papyri and inscriptions for the interpretation of early Christian texts and is the author of detailed studies of the social institutions presupposed by the earliest Christians.



LINSKY, Bernard – Department of Philosophy, University of Alberta

Bernard Linsky is one of the world's foremost historians of the foundations of mathematical logic in the early 20th century. His incisive analyses have led to an extensive reconsideration of the received view of the way logic has impacted mathematics and philosophy. His innovative manuscript research has also opened, for the first time, essential works in the history of mathematical logic to direct study by anyone versed in modern logic.



MAGNUSSON, Lynne – Department of English, University of Toronto

Lynne Magnusson is an internationally renowned scholar of Renaissance literature and world-class authority on Shakespeare’s language. Her ground-breaking publications on social dialogue interweave linguistic and cultural analysis to create a strikingly original paradigm for close reading in texts as diverse as Shakespeare and merchants’ letters. Her methodological innovations have not only illuminated literature but played a pioneering role in establishing early modern letters as a discrete field of study.



McKAY, Ian – Department of History, Queen’s University

Ian McKay, a highly respected scholar, a brilliant analyst and an award-winning author, is credited with changing not just conventional views of Canadian history, but the basic concepts of the field itself. His investigations into Canadian working-class culture, politics and Canadian historical theory have uncovered broader historical patterns and political frameworks that continue to inform the work of historians and social scientists, both in Canada and abroad, today.



SAGER, Eric – History Department, University of Victoria

Eric Sager is one of Canada’s preeminent historians. He is a pioneer in the construction and use of databases in historical research. His work with shipping records and population censuses pushed the boundaries of historical practice and led to seminal contributions to maritime history, labour history and family history. His scholarship has earned an international reputation for its interdisciplinary originality, methodological sophistication, and collaborative orientation.



SAUER, Elizabeth – Department of English, Brock University

Elizabeth Sauer is one of the world’s most distinguished scholars of John Milton’s writings. Her award-winning works combine critical topics in Milton studies and offer new perspectives on literary criticism. Winner of a Canada Council Killam Research Fellowship, Sauer is acclaimed for her insight, ambition, and the impressive range of her scholarship, and has made fundamental contributions to the study of early modern English literature, history, religion, print culture, nationalism, toleration, and imperialism.



SCHULLER, Eileen – Department of Religious Studies, McMaster University

Eileen Marie Schuller holds the Senator William McMaster Chair in Social Sciences. Dr. Schuller is Canada’s pre-eminent scholar of the Dead Sea Scrolls. One of only a handful of international researchers responsible for the Scrolls’ initial decipherment and publication, she has been instrumental in educating other scholars and the general public about the Scrolls and their significance.



TERPSTRA, Nicholas – Department of History, University of Toronto

Nicholas Terpstra, an internationally renowned historian, explores how civil society and social capital operated in Renaissance Europe. He asks why the flowering of humanism and liberty produced “lost girls,” religious refugees, and grinding poverty as mass phenomena. His drive to work imaginatively across borders—geographic, intellectual, institutional—animates many projects, including an ambitious geo-referencing of social, cultural, and sensory data from 11,000 Renaissance Florence households onto a period map.



VIOLA, Lynne – Department of History, University of Toronto

Lynne Viola is an internationally-renown historian of the Soviet Union under Stalin. For thirty years, she has been a leader in the field, playing a key role in the debates on Stalinism and breaking down archival barriers. Her books on the collectivization of agriculture, the “special settlements” (which held half the Gulag’s population), resistance, and perpetrators, have pioneered new fields of research and challenged traditional paradigms about Russian history.

DIVISION DES LETTRES ET SCIENCES HUMAINES



FORTIN, Michel – Département des sciences historiques, Université Laval

Michel Fortin is an internationally renowned researcher who has worked throughout his career as an archaeologist in the Middle East. Through his research in the field, he has helped to better understand some aspects of the urbanization process in northern Mesopotamia, on the one hand and, on the other hand, that of the Levant North. He also helped to develop applications of Geomatics in field archeology: excavations and surveys.



GAUDREULT, André – Département d'histoire de l'art et d'études cinématographiques, Université de Montréal

André Gaudreault has been a full professor in cinema studies at the Université de Montréal since 1991. His writings on cinema, regularly translated into Western and Eastern languages, have had considerable impact on the research of his peers both in Canada and abroad. A leading figure in his field of study, he has received numerous grants and awards, the most recent being a Guggenheim Fellowship (2013).



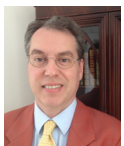
GINGRAS, Francis – Département des littératures de langue française, Université de Montréal

Francis Gingras is one of the foremost experts in medieval literature. He is interested in the history of literary forms, especially in tracing the evolution from romance to novel. His studies stand out by their blend of theoretical approach and historical analyses. His books on medieval eroticism, on the characterisation of vernacular narratives and their medium of dissemination benefit from a large international audience, European as well as North American.



POISSANT, Louise – Doyenne de la Faculté des arts et membre fondatrice de l'Institut Hexagram CIAM, Université du Québec à Montréal

The work of Louise Poissant has greatly contributed to the development of creative research in the field of media arts. It testifies to her ability to create spaces for reflection and exchange that have profoundly marked the short history of media arts and have largely contributed to make Montreal an international reference in this field. Her activities had a strong impact on the arts and academia, and her writings helped clarify some concepts and served as a springboard to an aesthetic reflection on the paradigm shift produced by the emergence of these art forms.



ROUGET, François – Département d'études françaises, Queen's University

François Rouget is a specialist in Renaissance literature. Leading researcher in the field of poetry, he is internationally recognized as one of the best scholars who enriched the knowledge of the poets of the second half of the sixteenth century. His pioneering work on the unsung poets as much as the conventional ones (Pierre de Ronsard, Philippe Desportes) is authoritative.

DIVISION OF ARTS



BURGE, John – School of Music, Queen's University

John Burge is an award-winning composer and champion of the arts in Canada. Exceptional in his ability to write successfully for the entire gamut of vocal and instrumental combinations, his outstanding musical output breaks new ground both technically and expressively. Drawing inspiration from Canada's magnificent and diverse landscape, history, and culture, Burge's works have a distinctly Canadian flavour that has contributed greatly to his international recognition.



CADIEUX, Geneviève – Faculté des beaux-arts, Université Concordia

Known internationally as an influential figure in Canadian photographic art since the 1980's, Geneviève Cadieux's poignant photographic works and large-scale installations test the limits of the medium while addressing the themes of the human body and the landscape in their mutual implication. In 2011, she received a Governor General's Award in Visual and Media Arts for the excellence of her artistic accomplishments.



GIESBRECHT, Marnie – Department of Music, University of Alberta

An adventurous and consummate keyboard artist, Marnie Giesbrecht, University Organist and Professor Emerita is passionate about playing and teaching a breadth of keyboard instruments, including organ, piano and harpsichord, allowing idioms and techniques to cross-pollinate and create new modes of expression. Internationally acclaimed for her work with the unique Duo Majoya, she is renowned as a performer, pedagogue and advocate for the organ and Canadian music.



LILBURN, Timothy – Faculty of Fine Arts, University of Victoria

Tim Lilburn is one of the world’s leading poets and essayists on poetics. His works employ early Western contemplative traditions to elucidate our relationship to landscapes and their ecologies, and to offer paths forward to living ethically within these relationships. He has received numerous honours for his works, including the Governor General’s Award, and has gained international recognition with translations in Mexico, Poland, France, Germany, and especially China.



SCHOFIELD, Stephen – Arts visuels et médiatiques, Université du Québec à Montréal

Professor and renowned artist for the variety and the quality of his practice namely in sculptures, Stephen Schofield has lead an exceptional career for over thirty years in Canada and abroad. Considered as one the most important artists who have transformed Canadian contemporary sculpture, his works are exhibited in the most famous museums, galleries and artist centres in Canada.



UPPAL, Priscila – Liberal Arts & Professional Studies, York University

Priscila Uppal combines writing prize-winning poetry, short stories and novels, with scholarly critical studies. Significantly her work contributes both to Canadian Literature and Multiculturalism. Among her achievements, her most original contribution is uniting poetry and sport. The ground-breaking poet-in-residence positions she initiated at the Vancouver and London Olympics, establish a unique link between aesthetics and athletics, restoring a public function to poetry that has long been missing.

Academy of Social Sciences

DIVISION OF SOCIAL SCIENCES



CONKLIN, William E. – Faculty of Law, University of Windsor

In his seven books and scores of articles and conference presentations, William Conklin has made original, internationally recognized contributions to Jurisprudence, Canadian Constitutional and International Law, legal philosophy, and legal pedagogy. He has opened discernment of meaning in rules, values, and other concepts to historical and social contexts of origin, which importantly influence the interpretation of texts as well as the legitimacy of a modern legal order.



CRAIG, Wendy – Department of Psychology, Queen’s University

Wendy Craig is the leading international expert on bullying prevention and the promotion of healthy relationships. As founder and co-Scientific Director of PREVNet (Promoting Relationships and Eliminating Violence Network), she has not only transformed our understanding of bullying, but has effectively translated the science into evidence-based practise and intervention, improving the lives of children and youth across Canada and worldwide.



GASKELL, Jane – Ontario Institute for Studies in Education, University of Toronto

Jane Gaskell is a global leader in the field of education and a champion for public education in Canada and beyond. Her career has combined educational leadership with teaching and scholarly writing about the changing landscape of education. She has lead major Canadian studies of teacher education and secondary schooling and examined changes in urban education, the impact of feminism, and the relation between work and educational provision.



HIRD, Myra J. – School of Environmental Studies, Queen’s University

Myra J. Hird is a distinguished interdisciplinary scholar with an international reputation for her multifaceted, collaborative investigations into science studies and environmental issues. Through her critically acclaimed books and articles, collaborations and public engagement activities, Hird explores how social sciences and humanities may engage with scientific knowledge to better respond to a wide range of global issues, including climate change, human-animal relations, and the nature and future of waste.



HIRSCHL, Ran – Faculty of Law, University of Toronto

Ran Hirschl is one of the world’s most influential scholars of comparative constitutional law, courts and jurisprudence. Original, bold, methodologically innovative and staggeringly productive, he has pioneered rigorous study of the causes and consequences of the global movement to endow high courts with the power of judicial review. He has made significant contributions to the interdisciplinary exploration of comparative constitutionalism, and to our understanding of the field’s history, methodology and practice worldwide.



LOVELL, W. George – Department of Geography, Queen’s University

W. George Lovell is an acclaimed scholar of historical geography, most notably in the regional context of Latin America, where his work on Guatemala in particular has had a decisive impact. A leading authority on indigenous Maya survival, Lovell’s research emphasizes how colonial experiences continue to shape contemporary conditions. His literary talents not only enhance academic scholarship but also foster greater appreciation of Latin America among the general public.



RAYSIDE, David – Department of Political Science, University of Toronto

David Rayside is internationally recognized for his comparative studies of sexual diversity politics in Canada, the United States, and Europe. He was one of the first political scientists to publish on this topic, and this work, alongside that on gender inequity and religious contention, remains distinctive for its detailed attention to local, regional, national, and international contexts. He has combined this scholarship with a commitment to expanding the recognition of diversity in university settings, Canadian and American academic networks, labour unions, the media, and the broader community.



RICHARDS, Michael P. – Department of Anthropology, The University of British Columbia

Michael Richards is an archaeologist who specializes in the application of scientific methods of analysis to address long-standing archaeological debates and questions. His principal research is in the application of bone chemistry to provide direct evidence for the past diets and movement/migration patterns of humans and animals from hundreds of archaeological sites worldwide. Key areas of research are in documenting Neanderthal and modern human dietary differences, showing the rapidity of the spread of agriculture in Europe, and documenting the wide and varied range of dietary adaptations of humans in the past.



SHACHAR, Ayelet – Faculty of Law, University of Toronto

Ayelet Shachar has achieved international recognition for her innovative scholarship on citizenship and multiculturalism. Her award-winning work combines methods and insights from law and political theory with concrete, problem-solving institutional design. It has inspired a whole new generation of thinking about how best to mitigate tensions between religious diversity and gender equality, as well as between citizenship and global justice, and has proved influential in public policy debates in Canada and abroad.



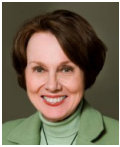
SHEEHY, Elizabeth – Common Law Section, University of Ottawa

Elizabeth Sheehy’s pioneering research challenges the boundaries of legal thought and prompts a rethinking of law’s treatment of women. Known for its technical excellence and for challenging law’s doctrinal assumptions, her scholarship has influenced analysis of sexual assault law and criminal law defences. As a leading feminist criminal law scholar, she asks how law might evolve if women were equal partners in law’s conception and application.



TAYLOR, M. Scott – Department of Economics, University of Calgary

M. Scott Taylor has contributed more to our understanding of the international trade dimension of sustainability issues than anyone in the world. His research seeks answers to questions such as: Is international trade good or bad for the environment? How has globalization affected resource use worldwide? What are the environmental consequences of economic growth? The answers are as yet incomplete, but much of what we do know is attributable to Scott Taylor’s research.



TEICHMAN, Judith – Department of Political Science, University of Toronto

Judith Teichman is a leading authority on the political economy of development and politics of Latin America with specialization in three related subjects: poverty and inequality, the politics of market reform, and the policy-making process. She has focused on three of the region’s most important countries: Mexico, Argentina and Chile. Professor Teichman is the author of four books, the coauthor of a fifth book and the author of many scholarly articles. The nomination of several of her books for prestigious awards, her winning of two coveted research fellowships and her exceptional success in winning grants from the SSHRC attest to the superior quality of her scholarship.



WALDRAM, James – Department of Archaeology and Anthropology, and Department of Psychology, University of Saskatchewan

Trained in medical and psychological anthropology, James B. Waldram has significantly advanced knowledge of Aboriginal health and healing, cultural epidemiology, environmental risks and rights, and institutional ethnography. He is the author of numerous monographs and articles related to healing in complex cultural contexts and his research has included pioneering ethnographic studies of therapeutic programs for criminal offenders, Aboriginal health and Aboriginal mental health policies and treatment, in Canada and internationally.

DIVISION DES SCIENCES SOCIALES



DES ROSIERS, Nathalie – Faculté de droit, Université d’Ottawa

Nathalie Des Rosiers is internationally acclaimed as a preeminent constitutional law expert, whose research has profoundly transformed the areas of sexual and spousal abuse, rights of minorities, and civil liberties. A leading public intellectual, she has served as a “conscience” of our community and is one of the most eloquent and persuasive champions of bilingualism and the preservation of the French language in Canadian law and society.



DUCLOS, Jean-Yves – Département d’économique, Université Laval

Jean-Yves Duclos is recognized as a leading international specialist in distributive and redistributive analysis. His extensive research, both methodological, statistical and empirical, has focused in particular on poverty, equity, inequality, polarization, and the impact of policy on distributions of well-being.



LAFORST, Guy – Département de science politique, Université Laval

Guy Laforest is an acclaimed scholar nationally and internationally. His original approach combines the methods of political theory and of intellectual history in the study of federalism, nationalism and constitutional politics in Canada. Praised for the uniqueness of their contributions, his studies have analysed the political identity of Canada, the philosophical history of politics in Québec, as well as the understanding of the thoughts of Trudeau and Taylor.



LAMARCHE, Lucie – Département des sciences juridiques, Université du Québec à Montréal

Lucie Lamarche is a recognized expert in international economic and social human rights. Her work is particularly focused on the rights of women to social protection and equality. It is also innovative in proposing analyses on the impacts of public policies on these rights. She has developed a methodology for the consideration of women’s rights in public policies on a national and international scale.



MAGNAN, Michel – John Molson School of Business, Concordia University

Michel Magnan is a scholar whose work on the measurement, valuation and disclosure of environmental and social information is known around the world, thus broadening accounting research's horizons while contributing to other fields. His studies on corporate governance, especially on the compensation of Canadian executives, have laid the foundation for further work in this area. Finally, his expertise in financial statement analysis has earned him national and even international visibility.

Academy of Science

APPLIED SCIENCES AND ENGINEERING DIVISION



DALAI, Ajay – Department of Chemical Engineering, University of Saskatchewan

Ajay Dalai is Canada Research Chair in Bioenergy and Environmentally Chemical Processing and a leading international expert on renewable energy, heavy oil and gas processing and catalytic reaction engineering. His innovative research has resulted in numerous patents for processes and catalysts he has developed and had significant impact on the Canadian petroleum and bioenergy industry. Professor Dalai is Fulbright Fellow (2012) and Fellow of the American Institute of Chemical Engineers.



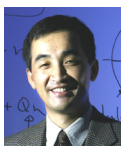
FINLAY, Warren H. – Department of Mechanical Engineering, University of Alberta

Warren Finlay leads an internationally renowned research group that has profoundly shaped the field of medical aerosols and revolutionized respiratory drug delivery. From aerosol deposition in the respiratory tract, to novel aerosolized formulations, the aerosol science of this group covers the gamut from basic fundamentals to essential technological significance. His group's clever synthesis of diverse fields has resolved long standing challenges in the science of aerosol drug delivery and improved the treatment of respiratory diseases worldwide.



KAMEL, Mohamed Salem – Department of Electrical and Computer Engineering, University of Waterloo

Mohamed Kamel has made distinguished and outstanding contributions to the fields of pattern recognition and machine intelligence. He introduced novel approaches in clustering and classification and developed valuable solution methods. He pioneered the application of these approaches in character recognition, biometrics, visual inspection, solving differential equations and data mining. His work has significantly impacted industry as demonstrated through his patents, research contracts with industry and his involvement in spin-off companies.



LUO, Zhi-Quan – Department of Electrical and Computer Engineering University of Minnesota

Zhi-Quan Luo has made fundamental contributions to optimization algorithms and their applications in signal processing communications. A major theme of these contributions has been the development of highly efficient optimization techniques that can successfully exploit special problem structures and hidden convexities in applications. Capable of reaching globally optimal solutions in polynomial complexity, these advanced convex optimization techniques have resulted in high quality solutions to several difficult signal processing problems with dramatically improved computational efficiency. Luo is considered a most influential leader in this field. His work has been adopted by both the digital hearing aids and the wireless communications industries.



ROSEI, Federico – Energy Materials and Telecommunications, INRS

Federico Rosei has made seminal contributions to the development and application of nanomaterials: semiconductor nanostructures, novel functional materials and their integration in devices, nanostructuring surfaces for biocompatibility and surface-confined molecular architectures. He is committed to fostering diversity in science and engineering. He has drawn trainees from 24 countries, and developed an intensive training course, delivered to hundreds of trainees since 2003, as a career guide for young scientists.



WILKINSON, David P. – Chemical and Biological Engineering, The University of British Columbia

David Wilkinson is an internationally recognized Canadian researcher and leader in electrochemical engineering, electrochemistry, fuel cells, and clean energy technology. Working in industry, government and now academia, he has made sustained contributions to the innovation, performance, durability and reliability of fuel cells, batteries and other electrochemical devices, while also advancing the basic understanding of electrochemical reactions and reactors. His research is important for a cleaner, and more sustainable energy and resource future.



ZANDSTRA, Peter – Institute of Biomaterials and Biomedical Engineering, University of Toronto

Peter Zandstra has pioneered the field of stem cell bioengineering, the application of engineering principles to stem cell biology. He has discovered new ways to grow stem cells in clinically-relevant bioreactors, used mathematical modeling to study stem cell behavior, and used micro-fabrication technologies to generate functional human stem cell-derived heart micro-tissues. Zandstra's work has advanced our understanding of difficult-to-access developmental processes and catalyzed development of novel cell-based technologies.



ZHU, Shiping – Department of Chemical Engineering, McMaster University

Shiping Zhu is a world leader in polymer reaction engineering, turning recipes for new plastics and polymers into industrial processes. His contributions range from developing new plastics to better approaches for preventing rejection of implanted plastic materials. Professor Zhu's reputation puts him at the very top of both academic and industrial polymer chemical engineering research. His international scientific stature is matched by outstanding teaching and leadership.

EARTH, OCEAN, AND ATMOSPHERIC SCIENCES DIVISION



ATKINSON, Gail M. – Faculty of Science, Western University

Gail M. Atkinson is an renowned expert in earthquake ground motions and seismic hazard analysis. She is an international leader in the development of models to predict earthquake ground motions as a function of magnitude and distance, and in their use to solve engineering problems. She also pioneered novel methods that use ground motion recordings to understand better the processes that generate and propagate earthquake motions.



HOCKING, Wayne – Department of Physics and Astronomy, Western University

Wayne Hocking's work addresses atmospheric dynamics and space/meteor physics, focusing on radar applications. He developed Doppler-spectral methods and digital technology to measure dynamical parameters, including turbulence structure, from the ground to 100 km altitude. Applications include space-shuttle and aircraft safety, atmospheric forecasting, severe weather studies plus real-time target and meteor detection. His paper in Nature on radar-detection of stratospheric ozone intrusion provided new insight into this important environmental issue.



MITROVICA, Jerry X. – Department of Earth and Planetary Sciences, Faculty of Arts and Sciences, Harvard University

For seminal contributions to the theory of planetary deformation and patterns of sea-level change that occur in response to surface loading and mantle convection, with applications to the mantle viscosity structure, orbital history, rotational stability, ice-age terminations and global warming.



ROULET, Nigel – Department of Geography, McGill University

Nigel Roulet has made outstanding contributions to our understanding of how climate, hydrology and ecosystem structure function by uniquely combining ecohydrology and biogeochemistry, investigating the transport and transformation of elements and compounds and the greenhouse gas and carbon balance of peatlands, including their sensitivity to climate variability and change. He contributed significantly to the use of science in public policy and has supervised over 45 graduate students and post-doctoral fellows.



SHARP, Martin – Department of Earth and Atmospheric Sciences, University of Alberta

Martin Sharp is a prestigious international voice documenting polar environmental change in a warming world. Martin’s research is remarkably prescient and innovative focusing on the linkages between glaciers, the atmosphere and oceans. His benchmark contributions to our understanding of high-latitude ice masses include quantifying their meltwater contribution to global sea level rise, an issue with enormous societal implications. Martin’s acumen is strategically important to Canada, a northern nation facing urgent environmental, geopolitical and socio-economic adjustments.

LIFE SCIENCE DIVISION



BOUVIER, Michel – Département de Biochimie et médecine moléculaire, Université de Montréal

Michel Bouvier’s pioneering discoveries bear on the largest class of therapeutic targets, the G protein-coupled receptors. His seminal studies have revealed the detailed mechanisms that underlie the responsiveness of cells to hormones, neurotransmitters and drugs. In addition to unravelling fundamental biological processes, his research has generated new concepts and tools that have a direct impact on the discovery of better and safer therapeutic drugs for a broad range of diseases.



BOYCE, Mark – Department of Biological Sciences, University of Alberta

Mark Boyce is a world-leading population ecologist and conservation biologist who uniquely links applied and theoretical aspects of ecology to some of the world’s highest-profile conservation issues. With over 200 publications, including 6 books, he has made huge contributions to basic science involving stochastic demography, population viability analysis, and modelling approaches for habitat ecology.



DEELEY, Roger – Department of Pathology, Queen’s University

Roger Deeley pioneered approaches to cloning novel genes based solely on their level of activity. Application of these approaches led to the discovery (with SPC Cole) of Multidrug Resistance Protein, a drug efflux pump associated with resistance to chemotherapy in cancer, and some forms of leukemia. This discovery enabled identification of a family of molecular pumps and revealed unanticipated diverse mechanisms by which cancer cells prevent drugs from reaching their targets.



EGGERMONT, Jos J. – Department of Psychology, University of Calgary

Jos J. Eggermont, Emeritus Professor, is a world-renowned researcher in the field of auditory neuroscience. He made lasting contributions to human auditory development and effects of auditory deprivation thereupon. His animal studies on the effects of traumatic-noise exposure led to breakthroughs in understanding the neural basis of tinnitus, and the discovery of the detrimental effects on the brain of long-duration exposure to environmental noise.



FEHLINGS, Michael G. – Division of Neurosurgery, University of Toronto

Michael G. Fehlings is a world-renowned neuroscientist and neurosurgeon. He combines an active clinical practice in complex spinal neurosurgery with a vibrant, translationally-oriented research program focused on discovering novel treatments for the injured brain and spinal cord. With over 500 highly-cited publications, impacting clinical practice and research directions, he is established as a leading international expert in brain and spinal cord injury investigating CNS repair and regeneration.



FENTON, Melville Brockett – Department of Biology, Western University

Brock Fenton is, without any question of doubt, one of the top three bat researchers in the world and his outstanding research, sustained over the last four decades, has made significant and most important contributions to the broader fields of behaviour, ecology and evolution. Furthermore, he has been one of the most active scientists doing outreach in Canada, long before it was “politically and/or academically acceptable”.



HACHINSKI, Vladimir – Department of Clinical Neurological Sciences, Western University

Vladimir Hachinski co-founded the first successful stroke unit, discovered the brain region involved in sudden death following stroke, and helped expound the stroke-Alzheimer disease connection. The concepts brain attack, multi-infarct dementia, leukoaraiosis, vascular cognitive impairment and the ischemic score are his own. He has been Editor of STROKE, President of the World Federation of Neurology and created the World Brain Alliance, World Stroke Day and the World Stroke Agenda.



KLIRONOMOS, John – I. K. Barber School of Arts and Sciences, The University of British Columbia

John Klironomos is a world-renowned expert in plant and soil ecology. His research on mycorrhizal symbioses and plant-soil feedbacks has had major impact on several disciplines in ecology, including biodiversity and ecosystem functioning, species coexistence, invasion biology, and biological responses to climate change. He is well known for his creative experimental approaches to deciphering complex interactions in soil, and for developing model microbial systems to address fundamental questions in ecology.



MARSDEN, Philip – Department of Medical Biophysics, University of Toronto

Philip Marsden has made key contributions to our understanding of how vascular endothelial cells control the biology of blood vessels and downstream organ function. He cloned and characterized the human genes that synthesize nitric oxide within blood vessels and defined how gene expression and function of these enzymes is perturbed in human blood vessel diseases. He is recognized as a world leader in the molecular biology of endothelial cells.



McPHERSON, Peter S. – Department of Neurology, McGill University

Peter McPherson's discoveries of the key proteins operating in clathrin-mediated endocytosis have opened a new research field, the molecular machineries for membrane trafficking. His demonstration that inositol phospholipids function directly in membrane trafficking was revolutionary. He pioneered approaches to quantify protein abundance using mass spectrometry data and discovered a new class of enzymatic regulators in membrane trafficking. His studies have revealed key links between membrane trafficking and human disease.



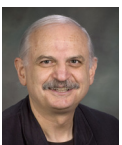
McPHERSON, Ruth – Department of Medicine and Biochemistry, University of Ottawa Heart Institute

Ruth McPherson's research has evolved over 30 years from the study of lipoprotein metabolism to the genetics and genomics of obesity and coronary artery disease. She is a world leader in cholesterol and genetics research, and has contributed importantly to our understanding of human cholesterol metabolism. She has made major discoveries in human genetics, most notably the 2007 discovery of the chromosome 9p21 risk locus for coronary artery disease.



NAGY, Andras – Department of Obstetrics and Gynaecology, University of Toronto

Andras Nagy has been seminal to the field of stem cell biology and regenerative medicine. He was first to create adult animals from mouse embryonic stem cells using tetraploid aggregation technology. His genetic tools are now used by thousands of researchers. He derived the first Canadian human embryonic stem cells and developed the first transgene-free induced pluripotent stem cells. His vision is to find cures for complex human diseases.



POLYCHRONAKOS, Constantin – Faculty of Medicine, McGill University

Constantin Polychronakos is nominated for his work in the genetics of diabetes. As one of the first researchers to use the power of high-resolution genotyping arrays he discovered genetic variants that predispose to diabetes. Additionally, he pioneered the study of thymic expression of tissue-specific antigens. The discoveries contribute substantially to our understanding of immune self-tolerance and the genetic contribution to common diseases.



PRUSINKIEWICZ, Przemyslaw – Department of Computer Science, University of Calgary

Przemyslaw Prusinkiewicz pioneered computational modeling in developmental plant biology. His innovative programming languages and widely used software for simulating plant development stimulated acceptance of computational modeling as an illuminating research tool in plant biology. His models, derived in collaboration with biologists, provide mechanistic explanations of fundamental processes in plant development and the resulting diversity of plant form.



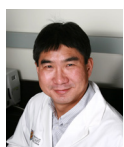
STEWART, Duncan – Department of Medicine, University of Ottawa, Ottawa Hospital Research Institute

Duncan Stewart is a world-leader in translational research. He was first to discover the role of endothelin-1 in the lethal disease of pulmonary hypertension, which led to the first effective oral therapy for this disease. He led the first Canadian clinical trials using gene therapy to stimulate blood vessel growth in hearts. He has also initiated the World's first gene-enhanced, stem cell therapy trials for patients with cardiovascular disease, pioneering the use of progenitor cells to repair and regenerate blood vessels in the of patients with untreatable pulmonary hypertension. He has authored over 200 manuscripts and holds numerous patents.



TEPASS, Ulrich – Department of Cell & Systems Biology, University of Toronto

Ulrich Tepass is an international leader in the analysis of epithelial cell polarity and cell adhesion using the genetic model organism, the fruit fly. He was among first to characterize an epithelial polarity factor in 1990, and since then has made numerous seminal contributions to our understanding of the molecular regulation of cell polarity and adhesion and the developmental significance of these processes. The fundamental insights that this work has generated are relevant for our understanding of human disease, including blindness and most forms of cancer.



YONG, V. Wee – Departments of Clinical Neurosciences and Oncology, University of Calgary

V. Wee Yong has made significant contributions to the neuroimmunology of multiple sclerosis, spinal cord injury and gliomas. His research on beneficial neuroinflammation, remyelination and glia biology has been transformative and is recognized internationally. His laboratory findings have been translated into Phase III clinical trials in multiple sclerosis and spinal cord injury. Dr. Yong leads provincial and national training activities and he is the President-elect of the International Society of Neuroimmunology.

MATHEMATICAL AND PHYSICAL SCIENCES DIVISION



BOUTILIER, Craig – Department of Computer Science, University of Toronto

Craig Boutilier's research in artificial intelligence, specifically in knowledge representation, computational decision support and computational economics, has had wide-ranging impact throughout the discipline. His introduction of factored, relational and first-order models greatly expanded the range and size of stochastic sequential decision problems that can be solved efficiently. His work on preference modeling and elicitation have provided strong theoretical foundations and effective algorithms for practical individual and group decision support systems.



BUNCEL, Erwin – Department of Chemistry, Queen's University

Erwin Bunzel has had deep influence on current chemical thought through his seminal contributions. While his academic roots are buried in classical physical organic chemistry, what especially marks Bunzel's research is the extremely broad range of chemical problems on which he has had a major impact, including materials science, reaction engineering and environmental science.



FIUME, Eugene L. – Department of Computer Science University of Toronto

Realistic computer graphics is an extremely active area of scientific research that has had an immense effect on design, manufacturing, culture and entertainment. Eugene Fiume has made outstanding contributions to the mathematical foundations of the field, pioneering the creation of new algorithms in physical computer animation, illumination, and geometric modelling. His algorithms, such as the simulation of fire and water, the animation of human bodies, the manipulation of shapes, and the computation of light and shadow, are now part of the products that are used to create the images we see every day in film and design.



FOGG, Deryn E. – Department of Chemistry, University of Ottawa

Deryn Fogg is one of today's leaders in homogenous catalysis. Her work couples mechanistic insight with implementation, teaching her and others how to advance the field. She embraces new, imaginative and powerful experimental tools; among these, her development of anaerobic MALDI-MS techniques has enabled unprecedented insights. Professor Deryn Fogg is a trail-blazer in catalysis, whose frontier research has created paradigms applied throughout the world.



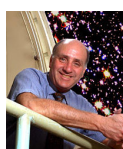
MacLACHLAN, Mark – Department of Chemistry, The University of British Columbia

Mark MacLachlan is an internationally recognized leader in supramolecular materials chemistry. He has made many creative contributions by applying concepts from nature to the design and synthesis of new molecules and materials. His pioneering work in iridescent glasses that mimic the structure of beetle shells has led to a new field of research in photonic materials.



McCANN, Robert – Department of Mathematics, University of Toronto

Robert McCann is a world leader in the theory of optimal transportation, which addresses the phenomena that arise when mass is transported in the most cost effective way. His research places him at the forefront of international efforts to analyze the modern versions of Monge and Kantorovich theories, and their far-flung applications to non-Euclidean geometries, functional inequalities, partial differential equations, economics, weather prediction, image processing and computer vision.



RICHER, Harvey – Department of Physics and Astronomy, The University of British Columbia

Harvey Richer has applied the most advanced optical telescopes in space and on the ground in the detection and characterization of stars in the oldest stellar systems. From these observations he has provided fundamental estimates of the age of the Universe, the density of dark matter, and the dynamics and formation of galaxies and globular clusters.



SARGENT, Edward – Faculty of Applied Science & Engineering, University of Toronto

Edward Sargent's research has resulted in advances in nanotechnology and materials chemistry, which he has translated into novel engineered devices for energy harvesting, light sensing, and medical diagnosis. He pioneered solution-processed solar cells that absorb the sun's full spectrum, including both its visible and infrared components. He has also created exceedingly sensitive light detectors to enable image acquisition in low light.



TUROK, Neil – Department of Cosmology, Perimeter Institute

Neil Turok is an internationally renowned physicist who has made major contributions to cosmology, the study of the origins and evolution of the universe. He is a world leader in developing and testing fundamental theories and is the co-inventor of the cyclic model for cosmology. His visionary leadership has advanced science in Canada and worldwide, in directing the Perimeter Institute for Theoretical Physics and by founding the African Institute for Mathematical Sciences.



VILLENEUVE, David – Attosecond Science, National Research Council

David Villeneuve is nominated for fellowship for creating a new sub-field of high harmonic spectroscopy in which attosecond methods are used to study atoms and molecules. This new spectroscopy has permitted Dr. Villeneuve and his group to obtain the first image of a molecular orbital and to follow a unimolecular chemical reaction as it passes through a conical intersection.



WISE, Daniel – Department of Mathematics and Statistics, McGill University

Daniel Wise is one of the world's top geometric group theorists. His fundamental contributions stand at the core of the most important development in geometry and topology since the proof of the Poincaré Conjecture, namely the proof of Thurston's virtually fibered conjecture for hyperbolic three-manifolds. The profound impact and originality of Wise's work have been recognized through several major awards, including the Veblen Prize of the American Mathematical Society.

Foreign Fellows



CALAS, Georges – Institute of Mineralogy, Materials Physics and Cosmochemistry, University Pierre and Marie Curie

Georges Calas is a pioneer in integrating spectroscopic and structural methods to understand, at a molecular scale, disordered materials, including structure-property relationships in natural minerals and synthetic materials. His work has had major impact on the crystal chemistry of minor elements in minerals, the structure and properties of glasses, radiation damage and radiogenic waste, and environmental mineralogy. He has shown great ingenuity and a command of experimental techniques that is second to none worldwide.



LACROIX, Jean-Michel – Civilisationniste, Université de Paris 3

Jean-Michel Lacroix, French civilisationniste, is renowned internationally in the multidisciplinary area of Canadian studies. He studied past and present dimensions of Canadian identity with a focus on the impact of immigration in relation with religion and education. He showed the original character of the Canadian experience on an international scale.



ZACHARASIEWICZ, Waldemar – Department of English, University of Vienna

Waldemar Zacharasiewicz is one of the foremost contemporary European scholars of comparative North American literatures. He has been elected to Full Membership in the Austrian Academy of Sciences and to Membership in the European Academy of Sciences and Arts (Salzburg) and the Academia Europaea (London). Among his five monographs, six edited and twelve co-edited books are ground-breaking studies of imagology (Imagology Revisited and Images of Germany in American Literature) and pioneering research in transnationalism and interculturalism (Aspects of Transatlantic Change and Canadian Interculturality). As Director of the Canadian Studies Centre at the University of Vienna, he has promoted research on Canada since 1998 and made Vienna a prestigious site for Canadian Studies abroad.

Specially Elected Fellows



HURLEY, Adèle – Director, Program on Water Issues (POWI) Munk School of Global Affairs, University of Toronto

Renowned nationally and internationally, Adèle Hurley advocates passionately, skillfully and intelligently on behalf of Canadians for the protection and preservation of air and water resources. Co-founder of the Canadian Coalition on Acid Rain, the largest, single-issue citizens' coalition in Canada, she helped secure emissions cuts from Canadian and US industries. As Director of the Program On Water Issues, she continues to advocate for science-based decision-making on important water resource issues.



MARDON, Austin – Assistant Adjunct Professor, John Dossetor Health Ethics Centre, University of Alberta

Austin Mardon's contribution to our store of knowledge on living with mental illnesses and the stigma that surrounds them has been immense and unique. Since giving the first partnership speech on schizophrenia in 1993, he has devoted his life to educating professionals and the public on mental illness. He has given hundreds of speeches, written scores of articles, and allowed himself to be the public face of Schizophrenia in Canada.



MILLIKEN, Peter – School of Policy Studies, Queen's University

Peter Milliken, Canada's longest-serving Speaker of the House of Commons and internationally respected expert on the rules and procedures of Parliamentary democracy, was a devoted champion of Canada's excellence in scientific research and science policy. Through high-level diplomacy and outreach, and grassroots networking and support, he worked to affirm the importance of discovery and innovation in science and technology, across all age groups and all sectors of Canadian society.

Honorary Fellow



RALSTON SAUL, John

Award-winning essayist, novelist and long-time champion of freedom of expression with a growing impact on political and economic thought in many countries. Undergraduate McGill, Ph.D Kings College London, 18 honorary degrees, Saul is translated into 23 languages. Declared a "prophet" by TIME magazine, he is a Companion in the Order of Canada, co-chairs the Institute for Canadian Citizenship and is International President of PEN International.