



PETER WALL INSTITUTE
FOR ADVANCED STUDIES
THE UNIVERSITY OF BRITISH COLUMBIA | VANCOUVER

2010 ANNUAL REPORT

Where Converging Minds Freely Explore.

2010 ANNUAL REPORT



Sonya Wall, Dianne Newell, and Patrick Dewilde
The opening of TUM-IAS Institute building in Munich

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DIRECTOR'S MESSAGE

I believe that most strategic plans end up in a drawer. But *if* we think of a strategic plan as representing dreams and visions that tap into our authentic traditions and aspirations, then to produce one could be an interesting and inspiring exercise, especially for an institute of advanced studies. A few years ago, the Peter Wall Institute staff and I undertook an intensive planning exercise, and the result was a two-year plan for April 2009–March 2011, quite a short timeline as strategic plans go. Yet, we were in a good situation with recent renovations and a strong financial position. The objective was to ensure and maintain the long-term effectiveness, sustainability, and reputation of the Institute, its goals, and its programs. The plan proposed creating greater public, international, and external exchange components as part of the Institute's programming.

One by one, the specific promises in our strategic plan have been met, much to my delight and, I confess, surprise (remember, it was supposed to be a dream). Thus, we have entered into formal partnerships with institutions internationally; we have implemented a broader portfolio of programs—in particular, the Wall Colloquia Abroad and Faculty Exchanges with partners, and the Peter Wall Downtown Public Lecture Series; we have in place a comprehensive marketing strategy; and we are now a recognized leader among the international field of institutes for advanced study that share the same fostering of interdisciplinary, collaborative, creative thinking over the long term.

In October, I attended the first-ever meeting of university-based institutes for advanced study, at the Freiburg Institute for Advanced

Studies, Germany. I spoke on the value of our international partnerships and was recruited to the steering committee to plan future meetings, thus ensuring that the Wall Institute will play an even greater role internationally. Also that month, we announced the award of a new Major Thematic Grant, for a pediatric AIDS-related study headed by UBC's David Speert that, while the data analysis will occur at UBC, involves researchers and data collection in South Africa, and links with our partner, the Stellenbosch Institute for Advanced Study.

We recently made two other interesting connections that, I believe, serve to remind us of the unanticipated possibilities the Wall Institute provides for collaboration, creativity, and seizing opportunities. First, we connected with the award-winning landscape architect Cornelia Oberlander, who designed an elegant, sustainable private garden area outside the windows of our guest rooms. Cornelia was one of the first women to graduate from the Harvard Graduate School of Design with a degree in landscape architecture, in 1947, and is renowned for applying a unique “green city” vision to Vancouver's urban environment at UBC's Museum of Anthropology and the Robson Square courthouse complex. She pioneered green roof design and environmental sustainability, concepts she integrated into many of her projects, including the National Gallery in Ottawa.

A reconnection was made with Alfredo Santa Ana, a member of staff at the Institute for over two years while he completed his PhD in Music at UBC. In December, we appointed him honorary Wall Composer in Residence. Alfredo had earlier composed the short musical prelude



for piano and string accompaniment that introduces the Institute's podcasts of talks, and in 2010 he arranged a second version that was premiered at the Wall Distinguished Scholars in Residence Alumni Dinner on February 3 by the Wall Woodwind Quintet.

This year at the Institute has been exceptionally successful due to the efforts of Barbara Harrmann and the rest of our dedicated staff, our residential scholars, our award and advisory committees, and our Board of Trustees. I wish to acknowledge the special contributions of Gregory Ronczewski, the talented designer of our latest website, who has designed this 2010 Annual Report, taking up the torch from Markus Pickartz, our proficient Systems Coordinator of the past six years. The systems coordination for the Institute is now being ably performed by our team of specialists from UBC-IT Client Services. We have attracted many committed service providers and consultants over the years and are most grateful to them all.

Initiatives to look forward to in 2011 include the launch of the Peter Wall Downtown Public Lecture Series, "The Wall Exchange," on May 3, 2011, with a gala talk by the human genome pioneer, J. Craig Venter; we shall welcome two new, and one returning, Distinguished Visiting Professors from the Collège de France; there is an external review of the Institute set for 14–15 April; and a new Director will be selected to replace me when my appointment ends in December 2011.

RESIDENTIAL PROGRAMS

Residential programs are people-based programs whereby excellent researchers are invited to be in residence (of varying intensities) with others chosen on the same basis. These programs are deliberately nonthematic. There is no attempt to choose people based on disciplinary background, and while there are very specific activities intended to bring people together, there is no specific joint end-product that is expected.

PETER WALL DISTINGUISHED PROFESSOR

The Peter Wall Distinguished Professor is a unique appointment directed at attracting or retaining a world-class scholar. This scholar can be expected to have a major impact on broad areas of research work at UBC. The endowed chair provides salary support for a five-year term, renewable without limit.

The Peter Wall Distinguished Professorship launched the programs of the Institute. It was established in 1994, originally as two endowed chairs, held by **Dr. Raphael Amit**, Sauder School of Business, and the late **Dr. Michael Smith**, Biochemistry and Molecular Biology, and Nobel Laureate in Chemistry.

In July 2002, UBC President Martha Piper appointed **Dr. Brett Finlay** as the new Peter Wall Distinguished Professor; his appointment was renewed in 2007.

PETER WALL DISTINGUISHED PROFESSOR

Brett Finlay, OC, OBC, FRSC, FCAHS joined the University as an Assistant Professor in 1989 and was appointed Peter Wall Distinguished Professor in July 2002.

Dr. Finlay's areas of research interest and accomplishment include host-parasite interactions of pathogenic bacteria, especially enteric bacteria, and pioneering the use of polarized epithelial cells as models to study pathogenic bacteria penetrating through epithelial barriers. Research in his lab is focused on understanding bacterial pathogenesis from the perspective of both pathogen and host. Ongoing projects include "Salmonella as a model intracellular pathogen" and "Enteropathogenic and enterohemorrhagic E.coli." It was a strain of E.coli that was responsible for the deaths of six people and the illness of thousands in Walkerton, Ontario in 2000, when the area's drinking water supply became contaminated. Dr. Finlay's research on how this strain of E.coli attaches to intestinal cells led to the development of a vaccine for cattle which will reduce the threat of future outbreaks. The bovine E.coli vaccine that he developed is being commercialized.

Dr. Finlay is co-founder, VP for Research, and Chair of the Scientific and Medical Advisory Board of Inimex Pharmaceuticals, Inc., whose mission it is to develop new therapies for infectious diseases. From this experimental setting, Dr. Finlay has involved himself in broadening

the line of research at UBC, expanding it to the area of emerging infectious diseases generally. His interactions at the Peter Wall Institute have encouraged him to include the social sciences and humanities in forums about emerging infectious diseases research at UBC. He also is the lead investigator on several emerging infectious diseases grants that include many UBC investigators. He is wrapping up work on his Gates Foundation grant (Gates Grand Challenge) for the project "Novel Therapeutics that Boost Innate Immunity to Treat Infectious Diseases" and a Genome BC grant. Dr. Finlay is an active participant in Institute functions and meets regularly with the various Associates and Scholars in Residence. His Wall Woodwind Quintet (the WW5) is made up of Institute Faculty Associates and has performed on several occasions at Associates' gatherings. He is an Official Observer on the Institute's Board of Trustees and he has worked very closely with Director Dianne Newell and the Peter Wall Advisory Committee, which he co-chairs. Dr. Finlay sits on the CIHR Governing Committee Council and its Executive Committee and Governance Committee. He was appointed Officer of the Order of Canada in 2006, and was appointed to the Order of British Columbia in 2007. His latest honour is the 2009 Canadian Society of Microbiologists Roche Diagnostics Award.



DISTINGUISHED SCHOLARS IN RESIDENCE

Up to six one-year appointments of outstanding senior UBC scholars are made each year. Scholars take up research offices at the Institute; among other activities at the Institute they present a talk on their research, participate in a two-day research retreat, and meet together on a weekly basis.

Five scholars took up their awards in April 2010: **Holger Hoos**, **Janis Sarra**, **Margaret Schabas**, **Ilan Vertinsky**, and **Mark Warren**. The Distinguished Scholars in Residence selected for 2011 are **Maxwell Cameron**, Political Science; **Guy Dumont**, Electrical & Computer Engineering; **Fabio Rossi**, Medical Genetics; **Rena Sharon**, School of Music; **John Steeves**, ICORD and Zoology; and **Richard Unger**, History.



Holger Hoos

Professor, Computer Science

Since the mid-1990s, starting with his PhD work, Holger Hoos has pursued an ambitious and successful research program that is centred on methods for constraint reasoning, search, and optimization, and their application. His work has influenced many others in the field, not only through specific research findings but also by providing an example of how experimental studies can guide the development of new methods and algorithms. His co-authored book *Stochastic Local Search: Foundations and Applications* is considered the best in the field; it establishes taxonomies and tools for analysis that can be the basis for an engineering framework.

Dr. Hoos completed his doctorate in Computer Science at the University of Darmstadt in Germany in 1998 and then took up a post-doctoral fellowship at UBC, followed by an academic appointment in 2000. In recognition of his contribution to scholarship, he has won several best paper awards from top journals and conferences in his field and has been elected vice-president of the Canadian Society for Computational Studies in Intelligence. He was a 2001–2002 Peter Wall Early Career Scholar.

At the Institute, Dr. Hoos is pursuing three research directions. One is the study of the 3D structure of RNA, which is a key problem in computational biology. He has already published several promising results in the area. Another research direction is the automated design and optimization of algorithms. This is a core problem in computer science with significant practical impact. As a third direction, he is working on a new open media environment. This is a joint project with colleagues from the UBC School of Music.



Dr. Hoos' Scholar in Residence talk, "À la recherche de l'intelligence artificielle: Machines That Think, Create and Play," will be given January 26, 2011, and available after that date as an audio podcast on the Institute's website.





Janis Sarra

Professor, Law

Janis Sarra is a specialist in corporate law, commercial law, commercial insolvency, corporate finance, and securities law. As the leading scholar in commercial law working in Canada, she has gained international renown for developing a unique approach to research that combines theoretical frameworks drawing from the social sciences with a great understanding of practical issues. In particular, her work on insolvency has helped shape how we think about corporate restructuring, which is one of the reasons why she is in international demand as a speaker and advisor

Dr. Sarra received her degrees from the University of Toronto: first, a BA in Political Science and Public Administration and MA in Political Economy. After positions as Executive Assistant of Metro Toronto, Research Associate with the Ontario Legislative Assembly, Human Rights Director of the Ontario Federation of Labour, and Member of the Ontario Relations Board, she returned to the University of Toronto for her LLB, LLM, and SJD and was admitted to the Ontario Bar. She joined UBC Faculty of Law in 2000 and was an Early Career Scholar at the Institute in 2001–2002.

Dr. Sarra's project at the Institute is an interdisciplinary, multi-stage initiative that explores the basic values of fairness. She believes that an exchange of understandings of ethics and values such as fairness, with colleagues in the arts, may serve to deepen our understanding of the concept of fairness and explore its meaning through a different lens. In December she held a jazz concert and discussion, "Jazz as the Medium: Informing Notions of Fairness." In the spring of 2011 she will direct a "Dance Atelier" on "Articulations of Fairness Through Dance, Dialogue, Space" and chair a public forum she organized, titled "Creating New Landscapes in Notions of Fairness."



Dr. Sarra's Scholar in Residence talk, "*The Pragmatic, Prescient, and Prudential: Corporate Governance of Banks in the Wake of Financial Crisis*," is available as an audio podcast on the Institute's website.

Margaret Schabas

Professor, Philosophy

Margaret Schabas' achievements in the philosophy and history of economics have straddled the humanities and social sciences in an admirable fashion, with important refereed contributions in journals and edited books as well as two substantial monographs, on the economist-scientist William Stanley Jevons, *A World Ruled by Numbers* (1990), and *Natural Origins of Economics* (2005). Out of her study of the emergence of classical political economy, Dr. Schabas has moved on to the major and challenging task of re-thinking Hume for twenty-first century scholars in a way which speaks to economists, historians, and philosophers.

The international respect in which Professor Schabas is held is evident in the prestigious grants and fellowships she has held outside of Canada. She has held fellowships at Stanford University, a Mellon at Harvard, a Dibner at MIT, a Fellowship at the Max Planck Institute in Berlin, and a Lachmann Fellowship at the London School of Economics and Political Science.

Dr. Schabas was educated at the University of Indiana, with an AM in History and Philosophy of Science; the University of Michigan, MA in Economics; and the University of Toronto, PhD in History and Philosophy of Science and Technology. She held academic appointments at the University of Wisconsin–Madison, and York University before joining UBC as Professor in 2001.

At the Institute this year, Dr. Schabas is researching and writing articles on the historical and philosophical foundations of bio-economics and has held two one-day workshops.



Dr. Schabas' Scholar in Residence talk, "*Hume on Happiness*," is available as an audio podcast on the Institute's website.





Ilan Vertinsky

Professor, Sauder School of Business, Institute for Asian Research, and Institute of Resources, Environment & Sustainability

Ilan Vertinsky's work is widely known for its excellence, rigour, relevance, and interdisciplinary breadth. A common focus of his research to date has been the intersection of uncertainty, resilience, and environmental discontinuities. Much of his research on systems resilience is concerned with specific episodes and is explicitly “event-centric” in its methodology. These event-centric case studies work effectively as instrumental research arguments. However, unlike most scholars who do case research, Dr. Vertinsky uses the cases to build computational models of the real processes and mechanisms that he and his colleagues have observed—models that can be systematically varied to identify more or less robust/resilient institutional designs.

Dr. Vertinsky received his BA in Economics from Hebrew University and a PhD in Business Administration from the University of California, Berkeley. He held an appointment at Northwestern University before joining UBC's Institute for Animal Resource Ecology and the divisions of Management Science and Policy Science in the Faculty of Commerce & Business Administration as Assistant Professor in 1970. A prolific author, he has published eight books to date and has received many awards for his research achievements, including the UBC Killam Research Prize.

At the Institute, Dr. Vertinsky is drafting a book on the foundation of systems resilience and crisis management that will articulate the fundamental relations that influence crisis prevention, crisis management, and post-crisis dynamics. He has also organized an international workshop on the topic to be held in 2011.



Dr. Vertinsky's Scholar in Residence talk, “*Making Sense of Crises and the Crisis of Crisis Management: Why Are We Managing So Poorly and Can We Do Better?*” will be given February 23, 2011 and will be available after that date as an audio podcast on the Institute's website.

Mark Warren

Professor, Political Science

Mark Warren is one of the leading scholars of democratic theory in the world, having made groundbreaking and innovative contributions through his work on representation, deliberation, and participation. Although he began his academic career as a Nietzsche scholar, publishing *Nietzsche and Political Thought* (1988), his most visible contribution at the moment is via democratic theory. He is especially interested in studying and understanding new forms of democratic representation that can be found in such institutions as citizens' assemblies and global social movements. Recently, he led a group of scholars who produced an influential study of the Citizens' Assembly in BC, a novel experiment in democratic governance that is attracting international attention in the academic as well as political world.

Dr. Warren holds a BA in Political Science from Lewis & Clark College, an MA in the Philosophy of Social Studies & Statistics, University of Oregon, and an MA and PhD in Political Science, University of Toronto. He established his academic career at Georgetown University, and joined UBC in 2004 as the Harold and Dorrie Merilees Professor in the Study of Democracy.

Dr. Warren is recognized for being one of the first to talk about the essential role that trust plays in the democratic public sphere. His book on the topic, *Democracy and Associations* (2001), won the 2003 Elaine and David Spitz Book Prize, awarded by the International Conference for the Study of Political Thought, as well as the 2003 Outstanding Book Award, Association for Research on Nonprofit Organizations and Voluntary Action (ARNOVA).

At the Institute, Dr. Warren is completing his book manuscript on the very timely and important topic of democracy and corruption. He is also co-organizing a small workshop on the subject to be held at the Institute in July 2011.



Dr. Warren's Scholar in Residence talk, "Voting with Your Feet: Exit-Based Empowerment in Democratic Theory," is available as an audio podcast on the Institute's website.



IN MEMORIAM



M. Patricia Marchak (June 22, 1936—January 1, 2010)

A caring scholar, journalist, and political and human rights advocate, Pat Marchak was a wonderful associate of the Peter Wall Institute and is sorely missed.

Pat was a prominent Canadian sociologist, highly prolific and energetic. A graduate of UBC, she became head of the Department of Anthropology & Sociology (as it was then known), and in the early 1990s, Dean of Arts at UBC. Pat had given up a promising journalistic career to gain a PhD and become an academic, taking up her UBC appointment in 1973. In the 1980s, she also ran unsuccessfully for the provincial legislature. She wrote important books on the British Columbian and Canadian natural resource sector, and after she retired from UBC, travelled widely in South America, Africa, and Southeast Asia, writing three scholarly books about state terror and the repressive regimes she encountered there. She always took risks.

A Wall Distinguished Scholar in Residence in 2000 and Fellow of the Royal Society of Canada, Pat remained deeply engaged in Institute events and discussions right up until the last weeks of her life. In 2008, we celebrated the publication of Pat's most recent monograph *No Easy Fix: Global Responses to Internal Wars and Crimes Against Humanity* (McGill-Queen's, 2008). The photo here was taken at that special Wall Institute event; as one of Pat's colleagues points out, the image says it all: "energy, fun, engagement, reflection, sense of direction, insight, connection."



David R. Jones (January 28, 1941—November 19, 2010)

David Jones, UBC Killam Research Scholar, Professor Emeritus in the Department of Zoology, Fellow of the Royal Society of Canada, and 2002 Wall Distinguished Scholar in Residence, died after a very long struggle with congenital emphysema. He was determined to win that battle, and had wit and intellect been effective cures for his condition, he would have done so.

A native of Bristol, England, David was recruited to UBC in 1969. Over his distinguished research career, he worked on every class of invertebrate, becoming a specialist in diving, exercise, and haemodynamics and evolving into a world leader in the field of comparative physiology. For his many accomplishments, he received great honours, including the Fry Medal from the Canadian Society of Zoologists, the Flavelle Medal from the Royal Society of Canada, and in 2003 became a Member of the Order of Canada. David was a lover of the arts, especially the opera, and was a lively participant in the Peter Wall Institute. He gave his Wall Scholar talk on the English Cathedral, one of the many elements in his life that had nothing to do with zoology but everything to do with his passions and expertise.

When David heard the news about Pat Marchak's passing in January, he wrote, "I greatly admired Pat. She was always up for a challenge, which was inspiring." The same could be said of David Jones.

DISTINGUISHED SCHOLARS RESEARCH EVENTS

If research events at the Institute, such as a workshop or a lecture series, would complement the scholarly plans of Distinguished Scholars in Residence, an additional sum is provided for such purposes.

March 25, 2010

Exploring an Ancient Star Cluster with the Hubble Space Telescope

Harvey Richer (2009–2010), Physics & Astronomy

A public panel with Aaron Dotter (University of Victoria), Brad Hansen (UCLA), Jarrod Hurley (Swinburne University), and Mike Shara (American Museum of Natural History) who are among a team of 12 astronomers successful in obtaining a very large amount of time on the Hubble Space Telescope to image an ancient star cluster named 47 Tucanae.

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March 10, 2010

Social Mobilisation for Climate Solutions Research: Changing Perceptions of Climate Change through Community

Stephen Sheppard (2009–2010), Forest Resources Management and Landscape Architecture

A one-day workshop in a symposium, “Social Mobilisation for Climate Solutions Research,” held in conjunction with UBC’s Celebrate Research Week and co-sponsored by the Pacific Institute for Climate Solutions and the Collaborative for Advanced Landscape Planning, UBC.

April 16, 2010

History and Philosophy of Economics

Margaret Schabas (2010–2011), Philosophy

A one-day workshop that included a series of presentations by Canadian and International scholars in the field.

EARLY CAREER SCHOLARS

This program brings together for one year outstanding tenure-track faculty from diverse disciplines at the early stages of their careers at UBC. At present, there is a single cohort made up of beginning untenured Assistant Professors and newly tenured and promoted Associate Professors. Those who are full members of UBC's Institute for Computing, Information, and Cognitive Systems (ICICS) are co-funded by ICICS.

The 2010–2011 cohort took up their appointments September 1, 2010.





Matthew S. Bedke, Simon Donner, monthly meeting at the Peter Wall Institute

Purang Abolmaesumi, Associate Professor
Department of Electrical & Computer Engineering

Dr. Purang Abolmaesumi received the BSc (1995) and MSc (1997) from Sharif University of Technology, Iran, and the PhD (2002) from the University of British Columbia, Vancouver, all in Electrical Engineering. From 2002 to 2009, he was a faculty member with the School of Computing, Queen's University. He then joined the Department of Electrical and Computer Engineering at UBC, where he is an Associate Professor with associate membership in the Department of Urologic Sciences. Purang is internationally recognized and has received numerous awards for his pioneering developments in ultrasound image processing, image registration, and image-guided interventions. He is an associate editor of the *IEEE Transactions on Biomedical Engineering*, a board member of the International Society for Computer Aided Surgery (ISCAS), and serves on the program committee of the SPIE Medical Imaging Conference.

Matthew S. Bedke, Assistant Professor
Department of Philosophy

One of the guiding questions in Matt's research is this: Are there objective moral facts? Or, do we think and talk about morality as though there are objective moral facts? In a series of recent articles, he focuses on the existence of moral reasons for action, and he defends the view that we should be no more skeptical of such reasons than we are skeptical of reasons to promote our interests, satisfy our desires, or believe what seems to be true. His current work aims to reconcile objectivity in morality with the apparent fact that moral language expresses positive and negative attitudes that are culturally influenced, and that do not seem to be about objective facts in the world. Of historically influential philosophers, Matt is most fond of Thomas Hobbes, David Hume, and Henry Sidgwick. Matt received his PhD in Philosophy from the University of Arizona in 2007 and joined the Philosophy Department at UBC in 2009. Before becoming a philosopher, Matt went to law school and spent some time practicing patent law in Los Angeles.

Joël Castonguay-Bélanger, Assistant Professor
Department of French, Hispanic & Italian Studies

Joël specializes in the literary and cultural history of eighteenth-century France. He received his MA from McGill University and a joint PhD from the Université de Montréal and Université Paris IV–Sorbonne. Before joining UBC in 2009, he held a FQRSC Postdoctoral Fellowship and was a visiting scholar in the Department of History at Stanford University. His research primarily focuses on the dissemination of scientific knowledge through literature and culture, and on the role of public opinion in the perception of scientific debates and theories. His 2008 book *Les écarts de l'imagination. Pratiques et représentations de la science dans le roman au tournant des Lumières* was awarded an honourable mention for the Raymond Klibansky Prize. His current projects include a critical edition of an eighteenth-century novel dealing with contemporary chemical theories and an anthology of early nineteenth-century pamphlets written against Newton's mathematical and astronomical ideas.

Emma Cunliffe, Assistant Professor
Faculty of Law

Emma's research focuses on the intersection of legal rules, medical knowledge, and cultural norms about parenthood. She received her BA and LLB (Hons.) from the University of Melbourne and her LLM and PhD (2009) from UBC. Emma joined the Faculty of Law as an Assistant Professor in 2008 and received a Killam Award for Teaching Excellence in 2010. Emma's current work investigates the Canadian criminal justice system's response to suspicious child deaths, in part by comparing recent wrongful convictions with secure homicide verdicts. This project is being conducted in collaboration with Professor Christine Boyle, and funded by a SSHRC Standard Research Grant. Separately, Emma has a forthcoming book on the medical and legal history of sudden infant death syndrome and its relationship with homicide: *Making the Case? Murder, Medicine and Motherhood*.

Jessica de Villiers, Associate Professor
Department of English

Jessica's research interests include cognitive approaches to language and discourse; relations among language, communication, and information processing style; and pragmatics. Her work has focused on developing descriptive linguistic tools for analyzing discourse, specifically in clinical contexts, with an emphasis on techniques that can be useful for both clinical diagnosis and for the study of patients with neurological and affective disorders. Jessica's current area of interest is on conversation skills in autism spectrum disorder; she is presently investigating how the conversational ability of an adolescent with an autism spectrum disorder is related to their information processing style. This work includes combining techniques from both health sciences and the humanities. Jessica completed a PhD in English Linguistics at York University and a Postdoctoral Fellowship in Behavioural Neuroscience at McMaster University before joining UBC as an Assistant Professor in 2002.

Simon Donner, Assistant Professor
Department of Geography

Simon's research focuses on climate change and aquatic ecosystems. He holds a BA in Geography from McMaster University, MEM from Duke University, and a PhD in Atmospheric & Ocean Sciences from the University of Wisconsin-Madison (2002). Simon and his students use field measurements and computer modeling to evaluate how past climate experience affects the resilience of ecosystems like coral reefs to climate change. This research helps develop effective strategies for adaptation and mitigation. His ongoing projects include coral reef resilience in the central equatorial Pacific; developing global tools for predicting coral bleaching; climate change adaptation strategies for south and central Pacific Islands; and the effect of climate variability on nitrogen and phosphorus pollution to coastal waters. He is a 2009 Aldo Leopold Leadership Fellow.

Bo Earle, Assistant Professor
Department of English

Bo has a BA in German Literature and MA in Comparative Literature, both from the University of Washington, and a joint PhD in English and Social Thought from the University of Chicago (2006). He was a Postdoctoral Fellow in the Humanities at Stanford University before joining the UBC English Department in 2009. His work focuses on the literature and philosophy at the beginning of consumerist society in early nineteenth-century Britain; he argues that the romantics still have a lot to teach us about consumerism's double-bind—that is, it perpetually both condemns us to and promises escape from buyer's remorse. The dual contention of his book project, titled "Queer Romanticism," is that, in order to be effective, modern politics, art, and love must become inconsumable spectral fantasies of themselves and that, as tragic as it might sound, this is finally possible only in the form of comedy rather than tragedy. The book applies this thesis to explain the historical development from Wordsworthian elegy to Byronic parody.

Michael Law, Assistant Professor
Centre for Health Services & Public Policy
and School of Population & Public Health

Michael joined UBC in 2009. Previously, he completed a BA in Geography from McMaster University, a MSc from the London School of Economics & Political Science, and a PhD in Health Policy from Harvard University (2008). He has also worked as a research associate at the University of Auckland in New Zealand and completed a post-doctoral fellowship at Harvard Medical School. Michael's research focuses on pharmaceutical policy. His past work has evaluated the impact of government drug coverage changes, investigated drug innovation, and documented the impact of direct-to-consumer advertising on drug use and costs. Currently, he is leading the evaluation of a controversial British Columbia policy that allows pharmacists to independently adapt and renew prescriptions. His work has been published in leading medical journals and has received both Canadian and international media coverage.



Joanna McGrenere, Associate Professor
Department of Computer Science

Joanna's research spans diverse areas in Human-Computer Interaction, which include personalized user interfaces, collaboration technologies, and assistive technologies for the elderly and the cognitively impaired. She earned her degrees in Computer Science: BSc from the University of Western Ontario, MSc from UBC, and PhD from the University of Toronto in 2002. She joined UBC as Assistant Professor directly after completing her PhD. Joanna was the first recipient of the Borg Early Career Award (2004), presented by the Computer Research Association's Committee on the Status of Women in Computing Research, for significant research contributions, in part for her leadership of the Aphasia Project, as well as for outreach to women. Joanna regularly publishes and participates in the organization of the top Human-Computer Interaction conferences, has been an IBM Centre for Advanced Studies (Toronto) Visiting Scientist since 2003 and has held various NSERC as well as CIHR grants.

Ludovic Van Waerbeke, Associate Professor
Department of Physics & Astronomy

Ludovic received his MSc in Theoretical Physics from Université Paris XI-Orsay and PhD in Astrophysics from OMP, Toulouse, France. He served as a Postdoctoral Research Fellow for one year at the Max Planck Institute for Astrophysics in Munich, and three years at the Canadian Institute for Theoretical Astrophysics in Toronto. He accepted in 2000 a permanent position as research scientist at the Centre national de la recherche scientifique, Institut d'Astrophysique de Paris, and then joined UBC in 2004 as Assistant Professor. Ludovic is a cosmologist with a particular interest in the study of dark matter and dark energy, which counts for 95% of the content of the Universe. The dark constituents of the Universe do not emit any radiation and are "invisible" to our telescopes. He was the first to use a novel technique, based on gravitational optics, to observe indirectly the invisible dark matter. Ludovic seeks to understand the connection between dark matter, dark energy, and the fundamental laws of nature. For this purpose, he uses the best ground- and space-based galaxy surveys in existence.



Top row, from left:
Bo Earle, Matthew S. Bedke, Joanna McGrenere,
Simon Donner, Joël Castonguay-Bélanger

Bottom row:
Michael Law, Ludovic Van Waerbeke, Emma Cunliffe,
Jessica de Villiers, Purang Abolmaesumi

PETER WALL DISTINGUISHED VISITING PROFESSOR

In the Distinguished Visiting Professor program, from time to time a senior, renowned scholar with a reputation for interdisciplinary engagement spends time in residence at the Institute. It is expected that the Visiting Professor will pursue a specific research agenda, participate in Institute programs and events, give talks, and organize specific activities intended to contribute to the intellectual life of the Institute and its affiliated scholars.


2010 Distinguished Visiting Professor

Barbara J. Grosz

**Dean, Radcliffe Institute for Advanced Study, and Professor,
School of Engineering and Applied Sciences, Harvard University**

It was a great pleasure to welcome Barbara Grosz to the Institute in June. Before becoming Dean, Dr. Grosz served as the Radcliffe Institute's interim dean in 2007 and as its first Dean of Science from 2001 to 2007. In this latter role, she designed and built the Institute's science program. Dr. Grosz has been a member of the Harvard faculty since 1986 and has led several Harvard efforts aimed at increasing the participation of women in science. Her research in computer science,

focused on finding ways to make computers behave more intelligently, draws also on work in linguistics, psychology, economics, and philosophy. In 2009, she received the ACM/AAAI Allen Newell Award for her interdisciplinary research, including pioneering contributions to improving human-computer communication. Dr. Grosz is an elected member of the National Academy of Engineering, the American Philosophical Society, and the American Academy of Arts and Sciences. She is also a fellow of the Association for the Advancement of Artificial Intelligence (AAAI), the Association for Computing Machinery (ACM), and the American Association for the Advancement of Science. In 1993, she became the first woman president of the AAAI. Dr. Grosz also serves on the executive committee and is a former trustee of the International Joint Conferences on Artificial Intelligence.



In her busy week at the Institute, June 21–25, Dr. Grosz gave a formal talk on socializing computers, entitled “Can’t You See I’m Busy? Designing Computers That Only Interrupt When They Should,” to the Faculty Associates and guests of the Wall Institute. Sharing her wide-ranging intellectual interests and experience, she participated in other informal discussions concerning human–computer interaction, her innovative work with Radcliffe science fellows, and the important role today of institutes for advanced study. Dr. Grosz also spent a day at the Institute for Computing, Information and Cognitive Systems, an interdisciplinary UBC research institute with over 160 members fostering a human-centred paradigm shift in emerging information technologies.

In her popular Wall Associates’ talk, Barbara Grosz described research that aims to shift the burden of adaptation from human to computer, so that computers respect our needs and adapt to us rather than the other way around:



“Ever been annoyed by a dialog box that pops up trying to be helpful, but asks something stupid instead? Sometimes a computer system has information that would be helpful to its user; at other times, the system may need information that only its user has. Too often, computer systems control an interaction, forcing their users to accommodate them.”

Faculty Associates Forum	Susan Cox , <i>Arts-Based Methods in Health Research</i>
Theme Development Workshop	<i>Time: Form and Function</i>
Faculty Associates Forum	Alexander Woodside , <i>Catastrophe Theory and the Future of Farming (As Seen From China)</i>
Major Thematic Grant, Seniorimotor Computation Lecture Series	Brian D. Corneil , <i>Putting the Motor in Oculomotor Preparation and the Premotor Theory of Attention</i>
Distinguished Scholars Alumni Dinner	Distinguished Scholars Alumni Dinner
Theme Development Workshop	<i>Marshalling New Tools for Viral Discovery in Chronic Diseases</i>
Faculty Associates Forum	Laissa Lai , <i>Radioactive Time: A Politics and Poetics of Asian/Indigenous Relation</i>
Early Career Scholars Event	Jonathan Lamb , Talk: <i>The Things Things Say: On the Metamorphosis of Captain Cook</i>
Major Thematic Grant, Seniorimotor Computation Lecture Series	Matthew T. Mason , <i>Generality and Simple Hands</i>
Faculty Associates Forum	Robert Brunham , <i>Navigating TB Transmission Networks with Genomics and Phylogen</i>
Distinguished Scholar Research Event	Stephen Sheppard , Workshop: <i>Social Mobilisation for Climate Solutions Research</i>
Major Thematic Grant, Seniorimotor Computation Lecture Series	Ilya Averbukh , <i>Laser Control of Molecular Rotation: The Art of Kicking and Spinning</i>
Faculty Associates Forum	Claire Young , <i>Pensions, Privatisation and Poverty: The Gendered Impact</i>
Distinguished Scholar Research Event	Harvey Richer , Public Panel: <i>Exploring an Ancient Star Cluster with the Hubble Space Telescope</i>
Major Thematic Grant, Seniorimotor Computation Lecture Series	Klaas Bergmann , <i>Optically Driven Adiabatic Transfer Processes: Historical Perspective and Some New Developments</i>
Major Thematic Grant, Seniorimotor Computation Lecture Series	Dana Ballard , <i>Modular Reinforcement Learning as a Model of Embodied Cognition</i>
Major Thematic Grant, Seniorimotor Computation Lecture Series	Benoit Girard , <i>Investigation of the Role of the Basal Ganglia in Action Selection Using Computational Models</i>
Early Career Scholars Lab Crawl	Early Career Scholars Lab Crawl
Faculty Associates Forum	Tony Phillips , <i>Epigenetics</i>
Distinguished Scholar Research Event	Margaret Schabas , Workshop: <i>History and Philosophy of Economics</i>

Faculty Associates Forum	Arthur Ray , <i>Telling It to the Judge: Historical Evidence and Métis Rights in Canada</i>
Distinguished Scholar Research Event	Margaret Schabas , Workshop: <i>Philosophy of Science</i>
Major Thematic Grant, Sensorimotor Computation Workshop Abroad	Dinesh Pai and Alain Berthoz , <i>Sensorimotor Computation: The Control of Gaze</i>
Faculty Associates Forum	Brett Finlay , <i>Revisiting the Hygiene Hypothesis: Clean Living and the Effect of Microbiota on Diarrhea and Asthma</i>
Distinguished Scholars Research Retreat	Distinguished Scholars Research Retreat
Major Thematic Grant	Coherent Dynamics of Ultra-Cold Molecular Systems Workshop, <i>Coherence in Ultracold Molecular Physics</i>
Exploratory Workshop	<i>Nanomaterials for Alternative Energy Applications</i>
Peter Wall Distinguished Visiting Professor Lecture	Barbara Grosz , <i>Can't You See I'm Busy? Designing Computers That Interrupt Only When They Should</i>
Peter Wall Distinguished Visiting Professor Fireside Chat	Barbara Grosz
Distinguished Scholar Research Event	Trevor Barnes , Workshop: <i>Economic Geography Steps Out</i>
Early Career Scholars Research Retreat	Early Career Scholars Research Retreat
Faculty Associates Forum	Janis Sarra , <i>Pragmatic, Prescient, and Prudential: Corporate Governance of Banks in the Wake of the Financial Crisis</i>
Exploratory Workshop	<i>Nanospace Biophysics</i>
Faculty Associates Forum	Edwin Moore , <i>Nanospace Biophysics</i>
Peter Wall Institute	Institute Board of Trustees Meeting
Faculty Associates Forum	Margaret Schabas , <i>Hume on Happiness</i>
Colloquium	Steven Meyer , <i>Pre-Pragmatisms and Robust Empiricisms: James, Whitehead, Wilson</i>
Faculty Associates Forum	Michael Wolf , <i>Nanomaterials for Alternative Energy Applications</i>
Faculty Associates Forum	Mark Warren , <i>Voting with Your Feet: Exit-Based Empowerment in Democratic Theory</i>
Colloquium	Dan Edelstein , <i>Rethinking the History of Natural Right</i>
Holiday Reception	Holiday Reception
Distinguished Scholar Research Event	Janis Sarra , Concert: <i>Jazz as the Medium, Informing Notions of Fairness</i>

THEMATIC PROGRAMS

Thematic Programs establish an overall research theme in which scholars with related expertise are gathered together for interdisciplinary collaboration.

MAJOR THEMATIC GRANT

The Major Thematic Grant provides funding of up to \$500,000 over a three- to five-year period to interdisciplinary teams of UBC and external scholars to research a new area. It is expected that UBC will become a centre for research on the topic.

2011–2014	HIV-Exposed but Uninfected (HEU) Infants: Exploration of the Causes of Enhanced Morbidity and Mortality	1999–2002	An Interdisciplinary Inquiry into Narratives of Disease, Disability, and Trauma Valerie Raoul, Centre for Research in Women's Studies & Gender Relations
2009–2011	Coherent Dynamics of Ultra-Cold Molecular Systems Moshe Shapiro, Chemistry and Physics & Astronomy	1999–2002	Pathogenomics Ann Rose, Medical Genetics
2008–2010	Sensorimotor Computation Dinesh Pai, Computer Science	1997–2000	Understanding Electron Motion in Matter Christopher Brion, Chemistry
2000–2003	Acoustic Ecology Kathleen Pichora-Fuller, Institute for Hearing Accessibility Research	1996–2000	Crisis Points Priscilla Greenwood, Mathematics

Coherent Dynamics of Ultra-Cold Molecular Systems

A Peter Wall Major Thematic Grant, 2009 – 2011



The participants in the workshop held by this MTG: **Coherence in Ultracold Molecular Physics, an International Workshop** May 20-23 at the Peter Wall Institute.

Principal Investigator: **Moshe Shapiro**, Chemistry and Physics & Astronomy.

Co-investigators: **John Hepburn**, Professor and VP Research & International; **Roman Krems**, Associate Professor, Chemistry; **Kirk Madison**, Assistant Professor, Physics; **Valery Milner**, Assistant Professor, Physics. For a list of external collaborators and additional information about the project see www.pwias.ubc.ca

This Major Thematic Grant is funding research to bridge the gap between chemistry and physics, between experimentalists and theorists, and combining the “ultra-fast” with the “ultra-cold.” The directions of this project constitute a completely new paradigm in the fields of chemical dynamics and atomic, molecular, and optical physics.

Key research accomplishments in 2010 include:

- Generation and control of chains of entangled atom-ion pairs with quantum light: Developed a coherent control-based method using quantum light in order to write arbitrary sequences of entangled atom-ion pairs. [*Physical Review Letters* – in press]
- Inversion of two-dimensional potentials from frequency-resolved spectroscopic data: Reported on the first successful reconstruction of two-dimensional potential energy surfaces using the magnitudes and positions of a set of frequency-resolved fluorescence (or absorption) lines. The inversion proceeds by first extracting of the phases of the transition-dipole matrix elements, yielding, together with the (ground) potential to (from) which emission (absorption) occurs, a point-by-point reconstruction of the two-dimensional

excited state potential energy surface(s). [*Journal of Chemical Physics* – submitted]

- Cold atom-based sensor development: Discovered a completely new application for trapped cold atoms and/or cold molecules. It was found that the depth of the trap influences the loss rate, even for depths well below the equivalent average energy at 1mK although the collisions with a room temperature gas are at a high energy (300 K). It was realized that the loss rate also provides a precise and absolute measure of the background gas density or the flux of particles. This discovery may establish a cold atom or molecule trap as a primary standard in the ultra-high vacuum range. At present, no such primary standard exists. This work represents a completely unanticipated technological spin-off of this major thematic grant collaboration. [Discovery disclosed to the UBC University–Industry Liaison Office; a provisional patent has been filed]

Stimulating project events held during the year included a seminar series in the spring and fall, and in May, a very successful large, three-day international workshop, “Coherence in Ultracold Molecular Physics,” hosted at the Wall Institute.

The project’s labs produced an impressive number of project-related publications and talks this year. Moshe Shapiro’s group published eight papers, with another three submitted. Kirk Madison’s group published two papers and filed a provisional patent, while members of the Valerie Milner/John Hepburn group published one paper, submitted a second, and supervised a master’s thesis research to completion. Roman Krems’ group published five papers and have one other accepted for publication. Altogether, Shapiro, Madison, and Krems presented a total of twenty-seven talks on the project around the world.

Milner’s group has started a new collaboration with the project’s external investigator, Professor Ilya Averbukh from the Weizmann Institute of Science, who was one of the longer-term visitors this year, on “The effects of laser-induced molecular rotation on the molecular dynamics in static external fields,” and the Krems’ group is now collaborating with Professor Gonzalez-Ferez of the University of Granada, Spain, and with Dr. Yuri Suleymanov, a Newton research fellow at Oxford.

Research plans for 2011

Shapiro’s group will continue research on the following topics:

Generation and control of entanglement: Following the initial breakthrough reported above, they intend to build an entirely new platform for quantum computing based on the dissociation of ultracold molecular-ions which form ions/neutrals fragments, serving as the (0,1) qbits elements. **Imaging of multidimensional wave packets and potential energy surfaces:** They will extend their approach for the extraction of potential energy surfaces from frequency-resolved data to the time-resolved domain. In particular, it is intended to use such data in imaging unknown time-evolving multidimensional vibrational wave packets. **Chiral separation of ultracold molecules:** They will continue with planning experiments aimed at using their recently published scheme for separating mixtures of ultracold molecules of opposite chiralities into their chirally pure components; they will also develop an entirely new scheme which promises to be the simplest such scheme yet, using new optical selection rules recently derived for the optical excitation of dimers of chiral species.

Madison’s group plans to begin the experimental study of **Feshbach resonances and photo-association in ultracold mixtures of Rb and Li atoms**. Milner’s group is also about to start the first experiments on producing the samples of rotationally excited oxygen molecules in a supersonic molecular beam. The first stage of this experiment will focus on the ability to enhance molecular excitation by means of ultrafast pulse shaping.

Krems’ group will continue research in two main directions: They will explore the **formation and dynamics of quantum quasi-particles** (excitons, polaritons, and polarons) in ordered ensembles of ultracold molecules on an optical lattice. This study may lead to the discovery of new quantum states of quantum quasi-particles, as the interactions between ultracold molecules on an optical lattice can be tuned in a way that cannot be achieved with conventional molecular crystals. They will continue to explore **reaction dynamics of ultracold molecules** in order to guide experimental searches of new ways of taking advantage of the extremely long wavelengths experienced by ultracold colliding molecules.

Sensorimotor Computation

A Peter Wall Major Thematic Grant, 2008 – 2011



Principal Investigator: **Dinesh K. Pai**, Computer Science
Co-investigators: **Antony Hodgson**, Mechanical Engineering;
J. Timothy Inglis, Human Kinetics; **Alan K. Mackworth**, Computer Science; **Martin J. McKeown**, Neurology; **John D. Steeves**, International Collaboration on Repair Discoveries (ICORD) and Zoology. For a list of external collaborators and additional information about the project see www.pwias.ubc.ca

The scientific goal of this project is to model the complex computations, sensing, and motor actions that are required to control our eyes and hand when we look at or reach out for an object of interest. Specifically, the aim is to construct computational models of how the eyes and head are moved to direct gaze to objects of interest in the environment, and how the hand manipulates objects. These models are being firmly

based on neurobiological measurements of how humans actually perform these tasks. The results will have important implications for applied clinical research and therefore for human health in the long term.

Key accomplishments in 2010 include:

- Several new research developments, including new biomechanical simulation software and new robotic eyes inspired by the human eye.
- Two-day workshop “Sensorimotor Computation: The Control of Gaze” held May 3–4 at the Institute’s partner, the Collège de France, co-organized and co-sponsored by Prof. Alain Berthoz.
- Extensive planning for the 2011 Wall Colloquium Abroad: Technical University of Munich Institute for Advanced Study joint workshop on “Multimodal and Sensorimotor Bionics.”

- Significant new research infrastructure acquired and set up, including high-speed motion capture system.
- An active project seminar series that included five external speakers from Canada, the United States, and Europe. Several speakers spent additional days visiting labs at UBC and giving more specialized talks.
- Many visiting researchers arrived and spent one to eight weeks consulting with the project, and a remarkable number of international visiting students arrived from five different countries to spend from five months to two years with the project.

Collaborations: At UBC, Dr. Pai started a new collaboration with Professor J-S Blouin (UBC Human Kinetics), MTG Research Associate Kees van den Doel, and others to apply high-density surface EMG techniques to human health. An NSERC Collaborative Health Research Projects program (CHRP) proposal led by Dr. Blouin was submitted. Much of the work of the Sensorimotor project relies on using models of muscle behaviour in vivo, but good models have been surprisingly lacking. It now appears that the giant protein titin could explain some of the poorly understood behaviour of muscle. Pai began collaborating with Dr. Kiisa Nishikawa of Northern Arizona University and Dr. Walter Herzog of Calgary to develop a new model of titin's role. A collaboration was initiated with Drs. Girard of l'Université Pierre et Marie Curie, Paris, Berthoz (Collège de France) and Wei (Northwestern University) to connect neural models of saccade generation to the project's biomechanical models.

Technical developments: A new virtual environment for conducting experiments on muscle synergies was developed with MTG external collaborator d'Avella. A mechanical engineering graduate student, Mahkameh Lakzadeh, working with project investigators Hodgson and Pai, redesigned a tendon-driven robotic eye for better performance. A new actively stabilized robotic eye was developed, based on the human vestibular ocular reflex and the optokinetic reflex.

Progress attracting interest: Work on the project was presented to several different communities, including biomechanics, neuroscience, computer graphics, and robotics, and has generated a surprising

amount of interest from all of these disparate communities. Pai's paper in the Journal of Biomechanics, for example, questioned a fundamental assumption underlying almost all current models of musculoskeletal systems, and showed how this can be corrected. This work has received significant interest from biomechanics, computer graphics, and neuroscience.

Research advances: The project developed a new Eulerian technique for simulating muscles and other solids that move in close contact. This is a significant departure from traditional biomechanical simulators that rely on the Lagrangian formulations that are popular in solid mechanics. The investigators continue to develop their strand-based biomechanical model of musculoskeletal system, and they began work on better constitutive models of muscle. Dr. Zariffa, a postdoc supervised by Steeves and Pai, developed a new method for using biomechanical models developed in the project to assess muscle activity in the presence of neuromuscular impairment (e.g., due to spinal cord injury).

With their collaborator Mitsunori Tada, project researchers analyzed the biomechanics of human hands from CT video data and discovered interesting phenomena that could shed light on the role of the tiny lumbrical muscles. They also made significant progress developing new techniques for tracking hands.

The researchers also developed new software for fast simulation of the optics of the human eye using many core parallel processors (GPUs). The software can simulate image formation on the retina, aberrations, corrective lenses, motion blur, and many other phenomena. They showed that control algorithms inspired by sensorimotor biology for saccadic eye movements and gaze stabilization can be effective for the control of a robotic eye. Several robotic eyes were also developed in their group.

Looking forward to 2011: In addition to co-sponsoring the "Multimodal & Sensorimotor Bionics" workshop in Munich, the Sensorimotor project will receive additional experimental infrastructure, which will encourage further interdisciplinary collaborations within UBC, and project researchers will begin distributing the biomechanical simulation software developed in the project to a broader community.

EXPLORATORY WORKSHOP GRANT

The Exploratory Workshop program offers competitive funding for meetings of researchers from various disciplines at UBC with distinguished external experts. Outcomes may include a special issue of a journal, an edited volume, or an application for a large grant such as a Wall Institute Major Thematic Grant.

A total of 74 Exploratory Workshop Grants have been awarded since 1999.



Sir Richard Friend

Nanomaterials for Alternative Energy Applications

Principal Investigator: **Michael Wolf**, Chemistry, and **Peyman Servati**, Electrical & Computer Engineering
June 20–23, 2010

The emerging energy crisis requires new materials to be found for energy harvesting, generation, and storage. Nanomaterials will play a major role in new developments in this important research field in solar energy harvesting and photovoltaic devices (solar cells), power generation and storage (supercapacitors, batteries and piezoelectric storage), and in gas storage and fuel cells. Transformational technologies will be enabled by the use of nanomaterials as electrodes in batteries, in organic solar cells, and as electrodes in fuel cells.

Fifty-five researchers from Canada, Australia, the United Kingdom, and the United States participated in this four-day Wall Exploratory workshop. It focused on developing and identifying promising areas of investigation, exploring the fundamental science and engineering of energy-related nanomaterials, and strengthening a UBC-wide research thrust in this field. A further aim was to build an international collaborative network that UBC researchers can draw on and participate in.

Sir Richard Friend, Cavendish Professor of Physics, of the Optoelectronics Group, Cavendish Laboratory, University of Cambridge presented an evening public lecture in conjunction with the workshop, entitled “A Bright Future: Plastic Electronics in Solar Cells and Lighting.”

Additional funding was provided by the UBC Department of Chemistry, UBC Faculty of Science, UBC Faculty of Applied Science, and the Advanced Materials and Process Engineering Laboratory (AMPEL) at UBC.

Nanospace Biophysics

Principal Investigator: **Edwin Moore**, Cellular & Physiological Sciences
October 2–4, 2010

This three-day workshop was designed to examine the architecture, composition, and function of cytoplasmic nanospaces, the techniques used to study them, and the development of scientifically accurate modeling and visualization tools for understanding nanospace biology. It brought together UBC and world pioneers from the disciplines of physiology, cell biology, botany, mathematics, and physics to (a) comprehensively assess current knowledge about the organization, development, and regulation of intracellular nanospaces in biology; (b) assess the current state of physical modeling and animated visualization essential for education and for generating research hypotheses; and (c) create and foster critical scientific collaborations for furthering research in the field of nanospace biophysics.

Fourteen oral presentations and fifteen posters were delivered by distinguished international invitees, principal investigators, and trainees. These sessions generated excellent discussions both during the meeting and at the social events. In addition to their workshop presentations, the international guests also gave well-attended departmental seminars. The principal applicants have arranged to publish the proceedings of the workshop in a special edition of the interdisciplinary journal *Protoplasma*, to be edited by Edwin Moore and Geoffrey Wasteneys, UBC Botany Department.

Additional funding was provided by Carl Zeiss Canada Ltd., FEI Systems for Research Corp., and Olympus.

THEME DEVELOPMENT WORKSHOPS

Theme Development Workshops facilitate brief, informal meetings of UBC researchers to explore the research possibilities of a topic of interdisciplinary interest. Workshops by Early Career Scholars are often funded by the Early Career Scholar Program. The workshops led by full members of the UBC Institute for Computing, Information, and Cognitive Systems (ICICS) are co-funded by ICICS.



Neglected Global Diseases Initiative (NGDI) at UBC

A one-day interdisciplinary workshop led by **Kishor M. Wasan**, Professor & Distinguished University Scholar, CIHR/iCo Therapeutics Research Chair in Drug Delivery for Neglected Global Diseases, Pharmaceuticals
January 11, 2010

The participants brainstormed the strategic plan for the NGDI-UBC, which promotes the production of affordable, life-sustaining medicines for the treatment of the world's most neglected diseases.

Time: Form and Function

A lunch-time workshop with humanists and scientists organized by **Niall Christie**, Mediaevalist, Corpus Christi College
January 27, 2010



BC Centre for Disease Control

An agency of the Provincial Health Services Authority

Marshalling New Tools for Viral Discovery in Chronic Diseases: The Example of XMRV

A half-day workshop organized by **David Patrick**, Director, Epidemiology, BC Centre for Disease Control and Professor, School of Population & Public Health, UBC and **Brett Finlay**, Professor Biochemistry & Microbiology and Microbiology & Immunology, and Peter Wall Distinguished Professor
February 5, 2010

UBC scientists met to review the science behind the very recent discovery of XMRV (xenotropic murine leukemia virus-related virus) and its implications for collaboration at the University. The most cogent aspect of experience to date is the application of viral microarray, genomic, and bioinformatic analysis to further the search for novel viruses in the context of chronic disease. Not only has this been applied to the discovery of XMRV in the context of prostate cancer investigation, but also to the discovery of a novel bornavirus in crop disease in poultry. Colleagues from the National Collaborating Centre for Infectious Disease participated and subsequently produced a "purple paper" which serves as a knowledge translation vehicle for current knowledge in the field.

Functional Imaging Radio Therapy

A one-day workshop organized by **Anna Cellar**, Professor of Radiology and Head, Medical Imaging Research Group
April 8, 2010

Participants from UBC and abroad met to discuss the use of mathematics and computer science to develop quantitative functional imaging methods for clinical radiation therapy procedures. The meeting was co-funded by the Canadian Institutes of Health Research.

COLLOQUIA

Colloquia are public talks by distinguished visiting researchers that will appeal to an interdisciplinary audience. Visitors under the Cecil H. and Ida Green Visiting Professorships Program of Green College often give a Wall Colloquium as part of their series of interdisciplinary talks on campus. Most of these talks are available as audio podcasts on the Institute's website.

November 8, 2010

Steven Meyer, Associate Professor of English,
Washington University in St. Louis

Pre-Pragmatisms and Robust Empiricisms: James, Whitehead, Wilson

In *Wandering Significance; An Essay on Conceptual Behaviour* (2006), Mark Wilson develops a dissenting “pre-pragmatist,” post-Quinean stance with regard to the classical picture of concepts provided by Bertrand Russell in response to late-nineteenth-century crises in classical mechanics and applied mathematics. Although Wilson portrays William James as a “fully fledged” pragmatist, accounts by Isabelle Stengers and Bruno Latour strikingly characterize James in a manner that deserves to be called pre-pragmatist as well. Wilson’s historical reconstruction of the crises also makes it possible, perhaps for the first time, to appreciate the motivation they provided for Alfred North Whitehead to move toward what James called a “process philosophy” and toward the more robust empiricism he shares with James and Wilson.

Steven Meyer teaches intellectual history and is the author of *Irresistible Dictation: Gertrude Stein and the Correlations of Writing and Science* (Stanford University Press, 2001). Among current projects, he is completing *Robust Empiricisms: Jamesian Modernism between the Disciplines, 1878 to the Present*.

This afternoon event was funded by the Peter Wall Institute, co-sponsored by the Green College Science and Society Series, and organized by **Alan Richardson**, Philosophy.



Steven Meyer



Dan Edelstein

November 26, 2010

Dan Edelstein, Associate Professor of French, Stanford University

Rethinking the History of Natural Right

Scholars tend to study the history of natural right using very traditional methods: Great men wrote canonical books which were read by other great men who wrote more canonical books, until finally the French revolutionaries declared the rights of man and of the citizen. But recent works on natural right contest this historiographical approach and challenge us to rethink the way we write the history of natural right. What if the real question was not one of intellectual lineage, but of cultural acceptance? What made natural right theory a political language that was adopted by a wide range of actors—and not just employed by the famous philosophers?

Dan Edelstein’s first book, *The Terror of Natural Right: Republicanism, the Cult of Nature, and the French Revolution* (University of Chicago Press, 2009), won the 2009 Oscar Kenshur Book Prize. Dr. Edelstein co-directs the “Mapping the Republic of Letters” project, which uses visualization software to represent the circulation of letters, people, and ideas in the early-modern period.

Joël Castonguay-Bélanger, Department of French, Hispanic & Italian Studies, organized this event with support from his 2010–2011 Wall Early Career Scholar funds.



Harvey Richer, monthly Wall Associates Forum at the Peter Wall Institute

FACULTY ASSOCIATES FORUM

A biweekly gathering of Institute Associates and guests over lunches and dinners with talks by Associates. It is the key forum at UBC for interdisciplinary research contact. Most of the talks since January 2008 are available as audio podcasts on the Institute's website.

January 13, 2010

Sue Cox, Centre for Applied Ethics and
George Belliveau, Language & Literacy Education
“Arts-Based Methods in Health Research”

Health practitioners have long recognized the therapeutic value of the arts in healing. Health researchers have also adapted arts-based approaches (such as drama, poetry, visual arts, dance, and song) to knowledge translation. More recently, health researchers have also begun to explore the use of the arts in all stages of inquiry. There is, however, very limited empirical research on the practice of arts-based inquiry in health and other fields, and no significant attention has been given to the methodological and ethical issues arising in the creation, performance, and display of artistic works. Drs. Cox and Belliveau held a Wall Exploratory Workshop in 2009 that tackled these issues by bringing together a range of researchers and artists to initiate a research agenda that would advance knowledge and practical applications in the developing area of arts-based inquiry.

January 27, 2010

Alexander Woodside, History
“Catastrophe Theory and the Future of Farming (As seen from China)”

What has come to be known as agrarian catastrophe theory predicts that by the year 2050 there will be nine to ten billion people on this planet. It will be necessary to feed them on the basis of less farmland, less water, less energy (at least of the present kind), and fewer chemicals than were available during the recent golden age of farm productivity from 1950 to the 1990s, when global food output increases exceeded even that period’s enormous population growth. One catastrophist in particular, Lester Brown, has argued that China will precipitate a global food supply crisis by about the year 2030. The anger among Chinese elite thinkers that Brown provoked suggests that the world does not yet have an effectively postcolonial language, social scientific or otherwise, for discussing global problems like this, in mutually understandable terms that the world’s multiplying national knowledge oligarchies can share.

February 10, 2010

Larissa Lai, English and 2008 – 2009 Wall Early Career Scholar
“Radioactive Time: A Politics and Poetics of Asian/Indigenous Relation”

In this talk, Dr. Lai considered the possible forms that relations between Asian and Indigenous peoples can take today on North American soil, given the complicated relationship both have had to European colonial presence. As colonized subjects and as members of settler culture, Asian Canadian writers and thinkers can make no claims to innocence. Through a reading of the Movement Project’s *How We Forgot Here*, David Khang’s performance piece *How to Feed a Piano*, and Marie Clements’s *Burning Vision*, Lai proposed that we need to attend more deeply to Indigenous understandings of the term “respect” and that such understandings may actually require the embrace of a non-linear model of time.

March 10, 2010

Robert Brunham, Medicine and Director, BC Centre for Disease Control (BCCDC)
“Navigating TB Transmission Networks with Genomics and Phylogenetics”

The epidemiological use of genomic sequence to identify transmission patterns dates back to 1992, when the sequence of an HIV virus from a Florida dentist was used to tie him to several patients whom he was suspected of infecting. In the years since, advances in genome sequencing technologies have given rise to an era of “molecular epidemiology,” in which whole genome sequencing and phylogenetic analysis are routinely used to infer the origins and evolutionary dynamics of a pathogen. Much of this work, however, has operated at the population level, rather than at the level of individual case-to-case transmission events. At BCCDC, whole genome sequencing is quickly becoming an integral part of outbreak investigations. Dr. Brunham described the Centre’s investigation of a 2006 outbreak of tuberculosis. It was the first project to use bacterial whole genome sequences to identify transmission patterns, which were analyzed in parallel with epidemiological data gathered in the field using a social network questionnaire to construct a putative transmission network to reveal unexpected patterns and drivers of transmission.

March 24, 2010

Claire Young, Law

“Pensions, Privatisation and Poverty: The Gendered Impact”

Increasingly, the Canadian government is encouraging its citizens to save for their retirement through private pension plans such as occupational pension plans and Registered Retirement Savings Plans (RRSP) rather than relying on the more public and universal state pension plans such as the Old Age Security and Canada Pension Plan. In her talk, Dr. Young argued that the current policy of privatising responsibility for economic security in retirement has a particularly detrimental effect on women for a variety of reasons. She canvassed a range of issues including the role played by the current tax subsidies for retirement savings, the move from defined benefit pension plans to defined contribution plans, and the impact of the global financial crisis.

April 14, 2010

Anthony Phillips, Psychiatry and Scientific Director, CIHR Institute of Neurosciences, Mental Health, and Addiction

“Epigenetics: A revolution in the making”

Molecular biologists have identified new layers of information contained within the physical structure of the genome which are epigenetic (over, above genetics) in nature and able to affect gene transcription without changing the genetic code per se. Of particular interest is the clear evidence that environmental factors may influence epigenetic modifications, thus providing a unique perspective on gene–environment interactions in health and disease. Perhaps the most remarkable inference related to epigenetic modification of gene transcription is its apparent heritability: unique gene–environment interactions in one lifetime may affect the offspring for generations to come. This talk focused on recent multidisciplinary experimental findings critical to our understanding of complex medical disorders including addiction and schizophrenia, along with cancer, type 2 diabetes, and other major forms of ill health.

April 28, 2010

Arthur Ray, History

“Telling It to the Judge: Historical Evidence and Métis Rights in Canada”

Canada’s Métis people and communities have struggled for their rights through armed conflicts in 1869–70 and 1885, and thereafter through political activism. In 1982, Section 35 of Canada’s new Constitution Act recognized Métis as Aboriginal people and protected their existing Aboriginal rights. It would, however, be left to the courts to determine answers to fundamental questions about Métis identity as they pressed for legal recognition of their constitutionally protected, but undefined, Aboriginal rights. Historical researchers found themselves addressing the courts’ evolving notions of Métis rights, influencing those conceptualizations, and revising existing scholarship on Métis history. Dr. Ray discussed this interactive process from the perspective of his involvement as an ethnohistorical geographer and expert witness in Métis rights cases, starting with the landmark *R. v. Powley* (2003).

May 12, 2010

Brett Finlay, Biochemistry & Molecular Biology and Microbiology & Immunology and Wall Distinguished Professor

“Revisiting the Hygiene Hypothesis: Clean Living and the Effect of Microbiota on Diarrhea and Asthma”

The microbiota (normal flora) is comprised of many microbes living in and on our bodies. Only recently have we begun to appreciate the impact of these organisms on our health and disease, impacting on, for example, obesity, bowel diseases, type 1 diabetes, and immune development. Populations living in developed countries such as Canada have gone to great lengths to minimize exposure to microbes, both pathogenic and harmless. The Hygiene Hypothesis suggests that perhaps we have gone too far, since hominids have evolved in a sea of microbes and actually need exposure early in life to microbes to minimize allergic diseases, including asthma. Dr. Finlay’s lab has begun to explore the role of the microbiota in experimental asthma and infectious diarrhea and found that the microbiota play central roles in these diseases. Recent results in this area were discussed, as were their implications in the quest to minimize the exposure to microbes.

September 29, 2010

Janis Sarra, Law and 2010 Wall Distinguished Scholar in Residence
“Pragmatic, Prescient, and Prudential: Corporate Governance of Banks in the Wake of the Financial Crisis”

The recent financial crisis witnessed the first “runs” on banks in more than 75 years. The collapse of financial institutions placed people’s homes, pensions, and economic security at risk. The crisis itself was the result of multiple factors, including inappropriate risk taking and inappropriate compensation incentives. Arguably, corporate governance of banks and other financial institutions differs from the governance of corporations because of prudential regulation and the different nature of stakeholders with investments at risk. A highly contested question is the extent to which there ought to be new regulatory oversight of bank governance, or whether there is a need for a more nuanced model of interactive governance. Our collective interest as depositors, investors, and mortgage holders in the effective governance of banks necessitates a new understanding of the incentive effects of various strategies.

October 13, 2010

Edwin Moore, Cellular & Physiological Sciences
“Nanospace Biophysics”

A report on the October 2–4, 2010 Exploratory Workshop “Nanospace Biophysics.” (See page xx for workshop details.)

October 27, 2010

Margaret Schabas, Philosophy and 2010 Wall Distinguished Scholar in Residence
“Hume on Happiness”

David Hume (1711–1776), the most influential philosopher to have written in the English language, maintained that happiness was the goal of all human activity: “For this were arts invented, sciences cultivated, laws ordained, and societies modelled.” Hume was also one of the first to analyze and assimilate the rise of commerce and trade, and recognized that the pursuit of luxuries could drive humans onto the wrong developmental path. The significant increase in wealth in Western Europe tended to deplete the stock of non-pecuniary goods, such as friendship, and induce an increase in military expenditures and thus government debt. Hume admired the wealth-creating effects of the

capitalist system while deploring its dehumanizing and destabilizing tendencies. This talk outlined Hume’s vision for human prosperity and the pursuit of happiness, both individual and collective.

November 10, 2010

Michael Wolf, Department of Chemistry
“Nanomaterials for Alternative Energy Applications”

A report on the June 20–23, 2010 Exploratory Workshop
“Nanomaterials for Alternative Energy Applications.” (See page xx for workshop details.)

November 24, 2010

Mark E. Warren, Political Science and Wall Distinguished Scholar in Residence
“Voting with Your Feet: Exit-Based Empowerment in Democratic Theory”

Contemporary democratic theory is modeled primarily on membership combined with empowered voice. An alternative to voice, however, is exit; when they have choices, dissatisfied members may choose to leave a collectivity rather than voice their dissatisfactions. But because the concept of exit is often viewed as appropriate only for economic markets, its democratic potentials have not been theorized. The costs to democratic norms are extensive; contemporary theorists implicitly work with a monopoly-based view of organizational power, tacitly approving relationships of domination owing to the formal—though often ineffective—presence of voice-based mechanisms. Contemporary democratic theory should be rethought to include exit-based empowerments as among its most fundamental features.



SPECIAL EVENTS



Early Career Scholars Colloquium, March 5, 2010

A Wall Evening Lecture, “The Things Things Say: On the Metamorphosis of Captain Cook” given by Jonathan Lamb, English, Vanderbilt University was part of a two-and-a-half-day symposium “Itineraries of Exchange: Cultural Contact in a Global Frame” organized by Neil Safier, History and 2009-2010 Wall Early Career Scholar. It brought together anthropologists, geographers, historians, Indigenous artists and activists, literary scholars, and others whose research focuses on cross cultural encounters and material exchange in a global context. Invited speakers shared works-in-progress in a way that critically assesses their own approaches toward the study of cultural exchange between peoples, places, and objects.

Distinguished Scholars in Residence Alumni Dinner February 3, 2010

The fourth annual alumni dinner reunited Distinguished Scholars in Residence from previous years. Participants enjoyed excellent company and great music performed by the Wall Woodwind Quintet “WW5” (Wall Associates Vanessa Auld, Brett Finlay, Holger Hoos, and Margaret Schabas, with Marianne Plenert), who performed and discussed a selection that included such composers as Müller, Berger, Brahms, and Mozart after dinner. A special feature was an original commissioned work by our own staff member and doctoral candidate in Music Composition at the time, Alfredo Santa Ana.

Peter Wall Institute Holiday Reception, December 3, 2010

This year’s annual holiday reception was attended by over 100 Faculty Associates and guests, including children, and provided a festive occasion for friends of the Institute from across campus and beyond to gather for good music, excellent refreshments served up by Sage Catering, lively conversation, and networking.



INTERNATIONAL PARTNERSHIPS

A current strategic direction of the Institute is to create scholarly partnerships among the international network of institutes of advanced study to support research of lasting value and impact. The Institute has since the fall of 2008 concluded memoranda of understanding for faculty exchanges and colloquia with the forerunner of all institutes for advanced study, the [Collège de France](#) in Paris, established in 1530, and with one of the newest, the [Technical University of Munich–Institute for Advanced Study](#), founded in 2005. We have also partnered with Africa’s young, premier institute, the [Stellenbosch Institute for Advanced Study](#), South Africa.



Collège de France, Paris

Wall Colloquia Abroad

In recognition of its commitment to research exchanges and collaborations with its international partners, the Institute launched in 2009 a special program to co-sponsor and fund colloquia from time to time at its partner institutes. Like the Exploratory Workshops held at the Institute, Wall Colloquia Abroad are small meetings to which scholars from a range of disciplines, from UBC and abroad, are brought together for a few days to develop and further research agendas on cutting edge topics. These peer-reviewed projects are headed by Faculty Associates of the Institute. Holding the meetings in other parts of the world raises the research profile of the Institute and attracts from those regions a number of key researchers who might otherwise not be able to participate. Holding the Colloquia at partner institutes also enhances the intellectual value of the partnerships.

Four Wall Colloquia Abroad are planned for 2011: one to take place at the **Collège de France**, two at the **Technical University of Munich Institute for Advanced Study** (both co-funded and co-organized by TUMIAS), and one planned for the **Stellenbosch Institute for Advanced Study**, South Africa.

Distinguished Faculty Exchanges

Under the memoranda of understanding with our International Partners, the Institute can welcome each year up to three outstanding professors from the Collège de France within the context of its invited Distinguished Visiting Professor program, and in turn, the Collège can invite up to three senior Faculty Associates of the Institute for one month under the rubric of its Chair d'État program. Stellenbosch will welcome up to five nominations per year of senior Faculty Associates of the Institute for fellowships of three months or longer. The Institute and TUM-Institute for Advanced Study will arrange annual brief exchanges of small, interdisciplinary research clusters with interests in a common topic.

Upcoming faculty exchanges between senior Associates of the Institute and the Collège de France for 2011 will include the Institute's Brett Finlay and the Collège's Philippe Sansonetti, Microbiology and Infectious Diseases, and Stanislas Dehaene, Cognitive Neuroscience. Alain Berthoz, Neurophysiology, will make a return visit to the Wall Institute, co-sponsored by the Brain Research Centre at UBC and the Wall Major Thematic Grant project "Sensorimotor Computation."



Lawrence Ward

Andrew Macnab

Lawrence Ward is the first senior Faculty Associate of the Institute to be appointed to a prestigious Collège de France Chair d'État under our new partnership. Dr. Ward is Professor of Psychology, member of the Brain Research Centre, and 2005 Wall Distinguished Scholar in Residence. He had an outstanding and intellectually stimulating visit that both broadened horizons and launched future research collaborations.

During his month-long visit in May 2010, Dr. Ward gave four public lectures at the Collège, which is a requirement of a Chair d'État. Attracting large audiences, these talks fell under a broad theme: "Cognition, Attention, and Consciousness: Synchrony in Mind." The lectures were entitled: (1) "Neural Synchronization and Cognition," (2) "Neural Synchronization and Attention," (3) "Neural Synchronization and Consciousness," and (4) "The Role of the Thalamus in Human Consciousness."

Dr. Ward worked in the exciting environment of the Collège's Laboratoire de physiologie de la perception et de l'action, headed by Dr. Alain Berthoz. He also spent three days with his faculty host, Dr. Dehaene, at his impressive INSERM-CEA Cognitive Neuroimaging Unit near Paris, where they discussed consciousness research, toured labs, and observed dramatic work on the recording of a monkey fMRI experiment. Dr. Ward gave colloquia and participated in full-day, cutting-edge research discussions at INSERM U821—Brain Dynamics and Cognition, Lyon, with Dr. Jean-Philippe Lachaux, where the experimental ideas Dr. Ward picked up are now being implemented in his UBC lab in collaboration with the Lyon group. At l'Hôpital Pitié-Salpêtrière, Paris,

Dr. Ward observed EEG recordings made by Dr. Claire Sergeant's team on a vegetative/minimally conscious patient who had suffered a traumatic brain injury a couple of weeks before. That extraordinary experience for Dr. Ward led him to develop a system to display neural synchronization in real time that could be adapted for use in the clinical context, thus providing doctors with information about patients' brain network activity in a useful time framework. He also attended the Fondation IPSSEN conference "Characterizing Consciousness: From Cognition to the Clinic," organized by Dr. Dehaene and featuring talks by some of the most prominent consciousness researchers in the world.

Dr. Ward also accomplished a great deal of data analysis and writing during his visit. One of the papers may develop into a collaboration with Dr. Dehaene on the topic of global and local neural synchronization in auditory change detection. The two scholars will meet again in April 2011, when Dr. Dehaene will be 2010 Wall Distinguished Visiting Professor at the Institute.

Andrew Macnab is the first Faculty Associate of the Peter Wall Institute to be appointed a Stellenbosch Fellow (for three months, late 2009, which was reported on in the Institute's 2009 annual report, and early 2010) under the new partnership with STIAS. Dr. Macnab is a Professor of Pediatrics. He brought elements that enriched his year as a 2006 Peter Wall Distinguished Scholar in Residence to the STIAS community by completing the data analysis of the four-year evaluation of the UBC–Makerere University, Kampala, Uganda partnership. At STIAS, Dr. Macnab published over a dozen research papers, gave several seminars locally, and discovered many new collaborators. With his Ugandan colleague, whom STIAS invited to Stellenbosch to spend time with Dr. Macnab, he undertook four collaborative projects. He has reported that the synergy achieved was "extraordinary" and has greatly enhanced the scale and potential of their future collaboration. He also found that the richness of the interdisciplinary dialogue and the "chemistry" of the creative space at STIAS have fundamentally influenced the principal direction of his academic endeavour today. STIAS has invited Dr. Macnab for a second fellowship in 2011, which the Wall Institute endorses.



"Sensorimotor Computation: the Control of Gaze"
Workshop at the Collège de France
Paris, May 3-4, 2010

FUNDING

The Institute is fully endowment-funded. The Peter Wall Endowment comprises Peter Wall's original gift of 6.5 million Wall Financial Corporation shares. Peter Wall is a visionary Vancouver property developer responsible for the iconic Wall Centre in the downtown area. The dividends from the shares support programs, the lease, and a major portion of the Institute's administration. Interest from the Hampton Endowment, a UBC fund dedicated to the Institute in 1994, supports programs and the balance of the administration costs.

GOVERNANCE

The governing body of the Peter Wall Institute for Advanced Studies is the Board of Trustees, as specified under the "Deed of Trust for the Establishment of the Peter Wall Endowment, 1991." Since January 1, 2005, the Institute has for routine matters reported to the Office of the Vice President Research & International. An Academic Advisory Committee of the Institute meets prior to Trustees' meetings to discuss with the Director program policy and special initiatives.



Anne Condon, Nassif Ghoussoub, Sid Katz, Alan Mackworth, Dianne Newell, Angela Redish, Lawrence Ward

Board of Trustees

The Board of Trustees has overall responsibilities for the policies and finances of the Institute. The Board meets with the Institute Director twice yearly. The five Trustees are the UBC President, who chairs the Board, two UBC-appointed Trustees, and two donor-appointed Trustees.

As of December 31, 2010, there are five Trustees:

Akbar Lalani, MD, Royal Columbian Hospital
Robert H. Lee, Prospero International Realty Inc. and former Chair of the UBC Board of Governors
Stephen J. Toope, UBC President
Sonya Wall, Donor Family
Clark Warren, Chair, UBC Foundation

Official Observers of the Board (as of December 31, 2010):

David Farrar, Provost and VP Academic
Brett Finlay, Peter Wall Distinguished Professor
John Hepburn, VP Research & International
Dianne Newell, Institute Director
Wesley Pue, Vice Provost and Associate VP Academic Resources
Bruno Wall, President, Treasurer, and Director, Wall Financial Corporation

Academic Advisory Committee (as of December 31, 2010):

Anne Condon, Computer Science
Brett Finlay, Peter Wall Distinguished Professor and Vice-Chair
Nassif Ghoussoub, Mathematics and Scientific Director, Banff International Research Station
Sid Katz, Pharmaceutical Sciences
Alan Mackworth, Computer Science
Dianne Newell, Director and Chair
Sarah Otto, Zoology
Anthony Phillips, Psychiatry
Angela Redish, Economics
Lawrence Ward, Psychology



Peter Wall Boardroom

The Institute occupies the two-storey East Wing and the top floor of the Leon and Thea Koerner University Centre, University of British Columbia. In 2008, the University renamed the East Wing as the Peter Wall Institute for Advanced Studies.

Office Area

With completion of the major renovations to the top floor of the East Wing in April 2009, the space now includes the offices of the Assistant Director and Senior Program Coordinator, a Financial and Facilities Clerk reception desk, an Administrative Assistant desk, a Project Office for Major Thematic Grants, a Distinguished Visitor's Office for Wall Distinguished Visiting Professors and other guests of the Director, a small seminar room, an open plan meeting area, and a staff room and storage room.

Scholars' Area

The east half of the top floor of the University Centre houses the Office of the Director, the research offices of the Wall Distinguished Professor and Distinguished Scholars in Residence, and a lounge and kitchenette for the use of the residential scholars and small gatherings called by the Director. The Peter Wall Boardroom is used for Institute Board of Trustees' meetings and the Director's meetings. Refurbishment to this area was completed in 2009.

Conference Rooms

The Institute operates two conference rooms in the west side of the top floor of the University Centre. The large and small rooms can be used separately or combined for meetings, talks, and meals. Both rooms open onto a large terrace with a sweeping view of the sea and mountains. The larger of the rooms features a fully integrated and automated audio-visual system. Telephone and network connectivity are provided in throughout the conference area. When not in use by the Institute for program events, the conference rooms can be rented by individuals and groups affiliated with the University or for University-sponsored events. Priority in booking the Institute facilities is given to Institute programs, followed by academic-related activities open to the University community. Refurbishment to this area was completed in 2009. Income from the rental of the conference rooms is used to offset the operating costs of the facilities.

Guest Rooms

The Institute's six non-smoking guest rooms reopened in 2009, once the renovations to the East Wing were completed. The guest rooms are available only for participants in Institute-sponsored programs.

DIRECTOR AND STAFF



Director: Dianne Newell

Professor Newell is an historian of technology who has spent her career examining the diffusion of knowledge in disciplines across the social sciences and humanities. She was a Wall Scholar in Residence in 2002 and appointed permanent Director, January 1, 2007. As Director, she has developed and led the Institute's strategic direction, which has focused on both reaching out to the local community and creating scholarly partnerships among the international network of advanced research institutes. Under her leadership, the Institute has expanded its facilities, programs, and information systems to enhance its reputation as an inspiring location for high-risk interdisciplinary research and discussions at the highest level, involving outstanding scholars both at UBC and abroad.

Assistant Director: Barbara Harrmann

Barbara joined the Institute in November 2008. She holds a Master's degree in History and Journalism from Leipzig University. She is responsible for the office management and administration, including facilities, finance, human resources, and event management. Barbara also has major responsibility for the Institute's contracts and agreements and for ongoing renovations to its facilities, landscaping, and signage.



Senior Program Coordinator: Emma MacEntee

Emma received a Master's degree in Library & Information Studies from UBC and has over eight years of work experience at the University. Emma coordinates most aspects of the Institute's programs and lends administrative support to the Institute's Board of Trustees meetings.

Financial & Facilities Clerk: Nadja Stamer

Nadja will join the Institute in January 2011. She has training and experience in accounting and in the international hospitality industry. In addition to booking and administering the Institute's conference and guest facilities, Nadja will also handle the day-to-day financial transactions. She takes over from Alfredo Santa Ana, who held a similar position half-time while he completed his doctorate in Music (Composition) at UBC.

Administrative Assistant: Margaret Bloomquist

In this new half-time position, Margaret supports the Senior Program Coordinator and the Assistant Director and provides general administrative and clerical assistance. Margaret has a BSc in Global Resource Systems from the Faculty of Land & Food Systems at UBC.

Systems Coordination

Systems Coordination, which was the responsibility of Markus Pickartz from 2004 to 2010, is now in the hands of our UBC-IT Client Services Management team.

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