

# Ideas. Innovation. Impact.

Research and Innovation 2010-2011 Annual Report



# Research at Ryerson

Rooted in what is.  
Inspired by what can be.  
A better world.

The mission of the Office of the Vice-President, Research and Innovation is to create a research environment that is supportive of the highest quality scholarly, research and creative activity by maximizing opportunities for funding and providing an infrastructure and environment conducive to outstanding individual and collaborative investigation leading to opportunities for broad social impact.

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# Message from the Vice-President, Research and Innovation

Our 2010-2011 annual report on scholarly, research and creative (SRC) activity for Ryerson University reflects our growing strength and the excellence of our researchers. We are on a transformational course having almost doubled research funding over the last five years. Last year, Ryerson ranked first nationally in the growth of research publications within the category of undergraduate universities. As the competition for funding intensifies we will maintain our momentum by continuing to strive for excellence and engaging more faculty in SRC.

SRC at Ryerson is richly diverse and reflects the wide range of programs and expertise of our faculty members. Again this year, our faculty are excelling in research, winning prizes and recognition nationally and internationally for their work.

Ryerson has been ahead of the curve in undertaking research to solve real-world problems in the community, in government and in the private sector. Our approach to community-based and market-driven innovation has attracted international attention and has opened doors to new partnerships.

We are strengthening our key research themes, which are: Digital Media, Communication and Information Technology; Energy, Sustainability, and the Environment; Health and Well Being; Design, Creative Expression and Cultural Industries; Technological Innovation; Management, Competitiveness and Entrepreneurship; and Learning and Teaching Effectiveness.

Ryerson is a leader in integrating teaching and research, and provides extensive opportunities to engage undergraduate and graduate students in research projects. Our focus on experiential learning provides ample opportunities to integrate research into the curriculum.

The commitment of the Office of the Vice-President, Research and Innovation's team to support Ryerson's SRC has never been stronger. We are expanding our efforts to showcase and promote our researchers, recognizing that the University's reputation rests largely on the achievements of its faculty. Its reputation, in turn, shapes our ability to attract and retain excellent students, faculty and partners.

Our reputation is extending beyond our borders with the expansion of our work internationally, strengthening and deepening relationships with excellent institutions worldwide.

This has been a remarkable year. Ryerson University's SRC achievements and our focus on students and partnerships positions us strongly to continue to build on the transformational momentum that has brought us to this point.



**Wendy Cukier,**  
Vice-President, Research and Innovation

# Growing Scholarly, Research and Creative Activity (SRC) at Ryerson

Like other Canadian universities, Ryerson assesses research intensity based on the amount of funding received by its faculty, the number of publications and citations, and the commercialization of Ryerson's expertise. However, we recognize that these traditional performance indicators do not accurately reflect the full breadth of Ryerson's scholarly, research and creative activities. To address this, the OVPRI is working with the faculties to determine appropriate metrics to measure the impact of disciplines such as the performing arts and the fine arts, design, and exhibitions, as well as how scholarly, research and creative activity impacts society.

This report will provide an update on our SRC achievements and highlight the many, innovative contributions being made by our faculty within the following areas:

- Awards, honours and fellowships
- Publications and citations
- Research funding
- Knowledge transfer and commercialization
- Innovation and impact
- Ryerson student successes – the next generation of excellence



Wendy Cukier





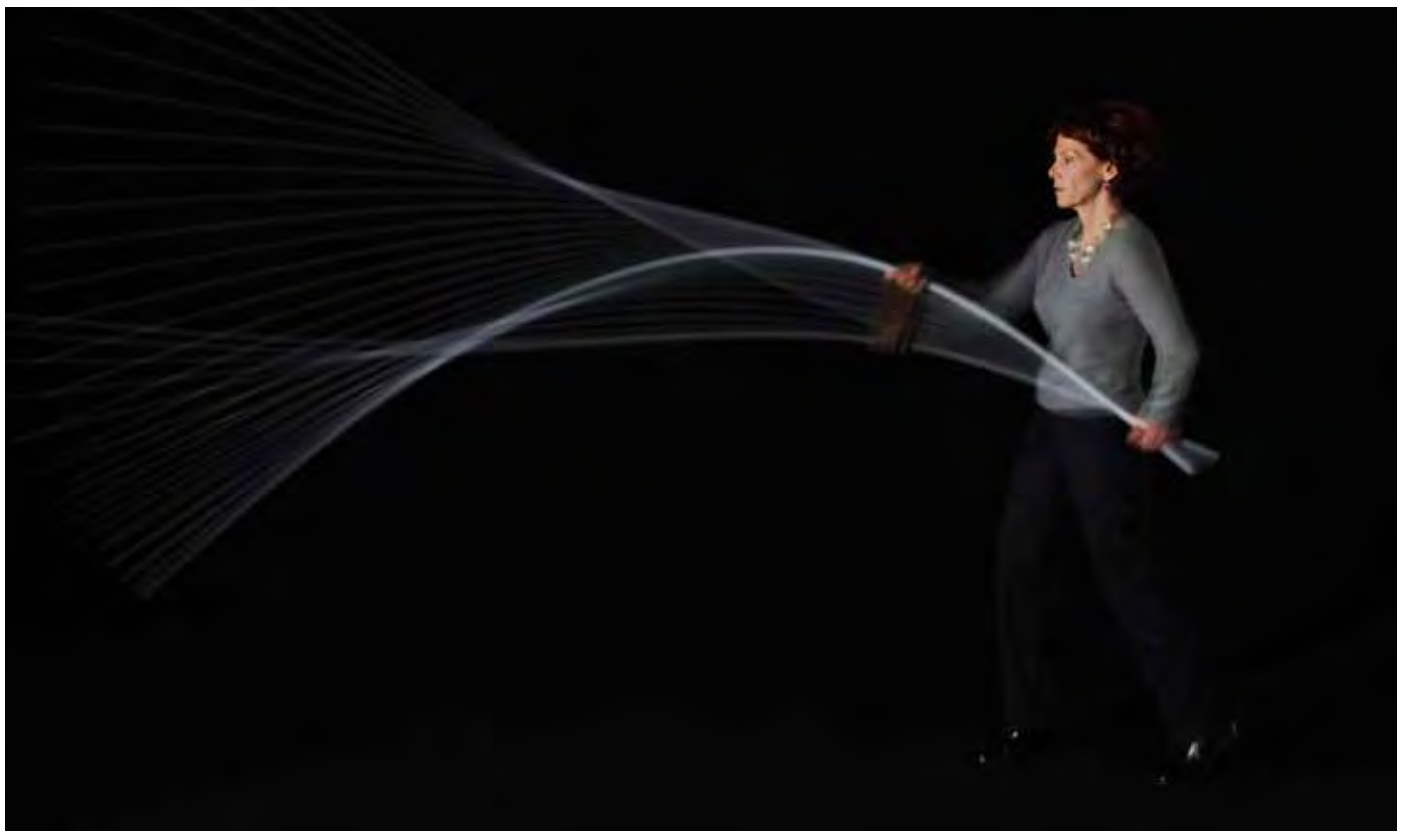
Mohamed Lachemi

## Faculty Honours and Awards

As one of Canada's fastest-growing teaching and research institutions, Ryerson's reputation rests upon, among other things, the strength of its faculty members. Building on the university-wide honours and awards strategy established last year, Ryerson is working to ensure that outstanding faculty members receive the recognition they deserve through a focused and coordinated nomination process. The OVPRI is working across the institution to identify opportunities and assist faculty and staff with the application process.

The coordinated efforts are producing results. Faculty continue to receive national and international honours, awards, fellowships, and election to professional societies that recognize outstanding scholarship and achievement. Ryerson also continues to acknowledge the remarkable achievements of its faculty through the Sarwan Sahota Distinguished Scholar Award and the Faculty SRC Awards. Some of the SRC awards and honours obtained by our faculty include:

Marta Braun





## Royal Society of Canada

The Royal Society of Canada (RSC) is Canada's most prestigious association of scholars, artists and scientists. As Canada's national academy, the RSC exists to **recognize** academic excellence, advise governments and organizations, and to promote Canadian culture. It is dedicated to encouraging education and the advancement of knowledge in the natural and social sciences and the humanities. Elected by a committee of their peers, **Marta Braun** and **Tas Venetsanopoulos** join the elite group of RSC fellows at Ryerson that includes **Bruce Elder**, **Irene Gammel** and dean emeritus **Maurice Yeates**.

**Marta Braun** (School of Image Arts) was honoured in recognition of the influence her discoveries have had in the fields of art, film and photography. She is a renowned expert in 19th century stop-motion photography, the area where photography and cinema begin to merge. Her research and publications in scientific photography and the beginnings of cinema have brought her international acclaim.

**Tas Venetsanopoulos** (Electrical Engineering) is an internationally recognized leader in telecommunications, signal and image processing and biometrics. He has authored a prodigious number of journal articles and books, opening new vistas in telecommunications, multi-dimensional filter theory and design, the design of non-linear filters, multimedia neural networks and biometric applications. His work has been cited in more than 7,000 research papers and 400 textbooks.

## Transformational Canadian Award

**Wendy Cukier** (IT Management) was the recipient of an award from the prestigious Transformational Canadians program, sponsored by the Globe and Mail. An expert in emerging technologies, Cukier has spent two decades championing workplace diversity and gun control. The unifying themes of her work are preserving core Canadian values around safety, equity and respect for human rights. Her limitless efforts in these areas have resulted in this great honour.

## Canadian Academy of Engineering Inductees

**Mohamed Lachemi** (Civil Engineering) and **Said Easa** (Civil Engineering) have been elected as fellows of the Canadian Academy of Engineering, one of the highest honours for Canadian engineers. They were nominated for their pioneering research and significant contributions to the profession.

## Transport Association of Canada – Award of Academic Merit

**Said Easa** (Civil Engineering) received the 2010 Award of Academic Merit from the Transportation Association of Canada. The award is to recognize Said's long-term contribution to the advancement of the academic field and the development of tomorrow's transportation leaders. He was also awarded the **Canadian Society for Civil Engineering – James A. Vance Award** which is presented to a civil engineer whose service has furthered the advancement of the society.



Said Easa



Sepali Guruge



## ORION Awards

ORION Awards are presented to Ontario researchers and innovators who are leveraging cutting-edge technologies to support research, education and discovery in Ontario and on the global stage.

**Hossein Rahnama** (Digital Media Zone) was the recipient of the Inaugural Innovation Award for his project on *Context Aware Computing Solutions in Intelligent Transport Systems*. Rahnama is leading the way in context-awareness and ambient intelligence technology, a new innovation in communications that gives mobile device users more control over how, when, and where they receive voice and video calls.

**Richard Grunberg** (School of Radio and Television Arts) was the recipient of the Learning Award for creating the *Global Campus Network*. A CNN-style network for universities and research centres around the world, the *Global Campus Network* creates an opportunity for the first truly collaborative international student perspective for news casting and creative initiatives using high-speed internet connections with full HD content rather than costly satellite technology.

Hossein Rahnama



## Leadership Award in Nursing Research

**Sepali Guruge** (Nursing) received the 2010 Rising Star Award in Academic Nursing from the Lawrence S. Bloomberg Faculty of Nursing at the University of Toronto, given to those who have excelled in their academic nursing career during the first five years of their full-time academic appointment. In 2011, she also received the Leadership Award in Nursing Research from the Registered Nurses' Association of Ontario for her innovative and progressive research that leads to positive patient and nurse outcomes.

## Canadian Nursing Student Association Honorary Life Membership

The Canadian Nursing Student Association presented **Janice Waddell** (Nursing) with an Honorary Life Membership in recognition of her educational research on career planning and development for nursing students and faculty, and her contributions to the professional development of students across Canada in the areas of career planning and development. Waddell's primary SRC activities focus on the impact of career planning and development on career resilience and innovative retention strategies for new graduates and early to mid-career nurses.

## Engineering Institute of Canada Fellowships

**Said Easa** (Civil Engineering) and **Liping Fang** (Mechanical and Industrial Engineering) have been elected as fellows of the Engineering Institute of Canada. Each year the Institute elects 20 fellows selected from its membership of 22,000 Canadian engineers. This honour is given in recognition of excellence in engineering and service to the profession and society at large.



Richard Grunberg

### Urban Alliance Race Relations Award

**Manavi Handa's** (Midwifery) dedication to those underserved by the health community, such as new immigrants and women who lack OHIP coverage, has been recognized with an Urban Alliance 2010 Race Relations Award. This non-profit organization promotes public education, research and advocacy for a stable and healthy multi-racial and ethnic community, honouring people who are committed to fighting racism within the community.

### Self-Help Seal of Merit Award, Association for Behavioral and Cognitive Therapies

**Martin Antony** (Psychology) received a Self-Help Seal of Merit Award from the Association for Behavioral and Cognitive Therapies for his work *When Perfect Isn't Good Enough: Strategies for Coping with Perfectionism*.

### NCTE Award in Technical and Scientific Communication

**Catherine Schryer** (School of Professional Communication) won the 2010 NCTE (National Council of Teachers of English) Award in Technical and Scientific Communication in the category of Best Article Reporting Historical Research of Textual Studies in Technical or Scientific Communication for her article *The Trial of the Expert Witness: Negotiating Credibility in Child Abuse Correspondence*.

### Templeton Research Fellows Program

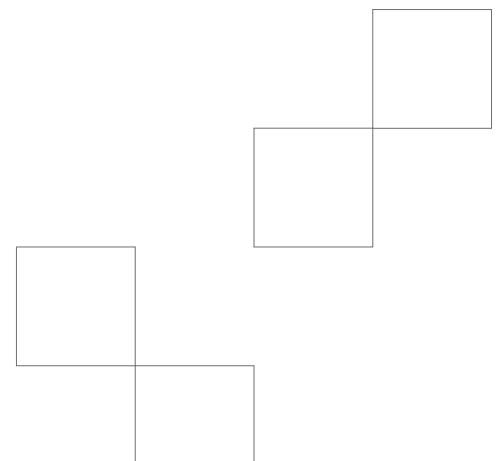
**Klaas Kraay** (Philosophy) was awarded a prestigious Templeton Research Fellowship at the University of Oxford for the academic year 2011-2012. These fellowships are given to academics with an established publication record whose proposed research will open new avenues for interdisciplinary research in the philosophy of religion. His project is entitled *God, Possible Worlds, and the Multiverse*.

### Arrow Prize

**Vincenzo Caponi**, director of the graduate programs in Economics, won the 2010 Arrow Prize for Junior Economists (with **co-authors** Burc Kayahan, Acadia University, and Miana Plesca, University of Guelph) for the article *The Impact of Aggregate and Sectoral Fluctuations on Training Decisions*, published in *The B.E. Journal of Macroeconomics* in October 2010.

### IPAC/Deloitte Public Sector Leadership Awards

The efforts of the **Department of Politics and Public Administration** to provide education in Public Administration and Governance to Ontario First Nations were recognized by the Institute of Public Administration of Canada (IPAC) and Deloitte & Touche LLP with a Silver Award in the Education category. The IPAC/Deloitte Public Sector Leadership Awards program recognizes organizations that have demonstrated outstanding leadership by taking bold steps to improve Canada through advancements in public policy and management.



## Ryerson Awards

### Sarwan Sahota Distinguished Scholar Award

This award is presented annually to faculty members who have made an outstanding contribution to knowledge or artistic activity in their area of expertise. **Dennis Denisoff** (English) was honoured for his work in gender and sexuality and **Gideon Wolfaardt** (Chemistry and Biology) was recognized for his work in biofilms and microbial communities.

### Faculty Scholarly, Research and Creative (SRC) Awards

The Faculty SRC Awards recognize individual faculty members for outstanding achievement in scholarly, research, and creative activity that has had an impact on their discipline during the previous academic year. This year's recipients are:

#### Faculty of Arts

**Colleen Carney** (Department of Psychology)  
**Stacey Hart** (Department of Psychology)  
**Trevor Hart** (Department of Psychology)  
**Naomi Koerner** (Department of Psychology)  
**David MacKenzie** (Department of History)  
**Candice Monson** (Department of Psychology)

#### Faculty of Communication & Design

**Gene Allen** (School of Journalism)  
**Charles Davis** (School of Radio and Television Arts)  
**Bruno Lessard** (School of Image Arts)  
**Catherine Schryer** (School of Professional Communication)

#### Faculty of Community Services

**Jacqui Gingras** (School of Nutrition)  
**Enza Gucciardi** (School of Nutrition)  
**Kathryn Woodcock** (School of Occupational and Public Health)

#### Faculty of Engineering, Architecture and Science

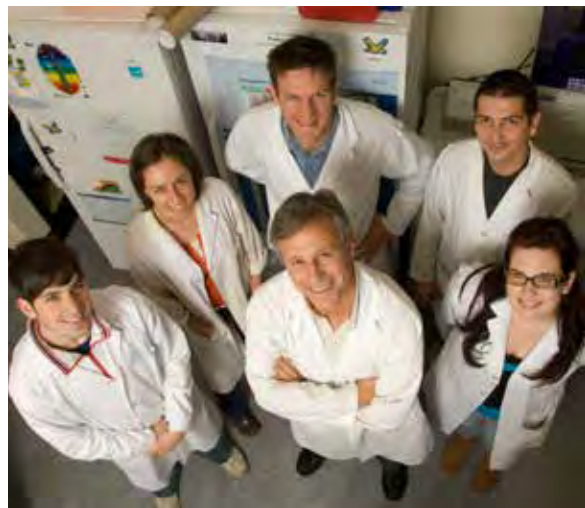
**Kamran Behdinan** (Department of Aerospace Engineering)  
**Alan Fung** (Department of Mechanical and Industrial Engineering)  
**Ali Miri** (Department of Computer Science)  
**Ahmed Shaker** (Department of Civil Engineering)  
**Krishnan Venkatakrishnan** (Department of Mechanical and Industrial Engineering)

#### Ted Rogers School of Management

**Rachel Dodds** (Ted Rogers School of Hospitality and Tourism Management)  
**Deborah Fels** (Ted Rogers School of Information Technology Management)  
**Shavin Malhotra** (Ted Rogers School of Business Management)  
**Ozgur Turetken** (Ted Rogers School of Information Technology Management)



Dennis Denisoff



Gideon Wolfaardt

## Publications and Citations

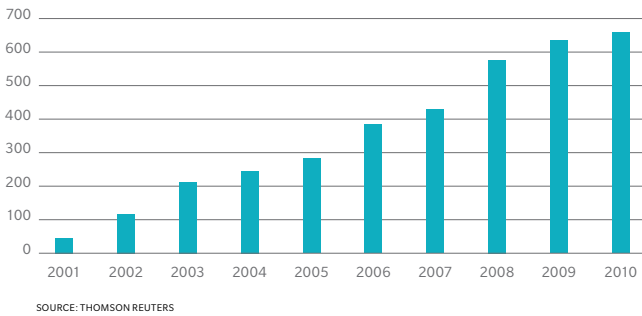
The total number of SRC publications produced by Ryerson faculty members, and the number of times that they are cited in other publications, are two indicators of successful SRC performance. Publications and citations are indexed by a number of organizations including Thomson Reuters, whose data have been used in the preparation of this report.

Ryerson's growth in publications from 2001 to 2010 is shown in **Figure 1**.

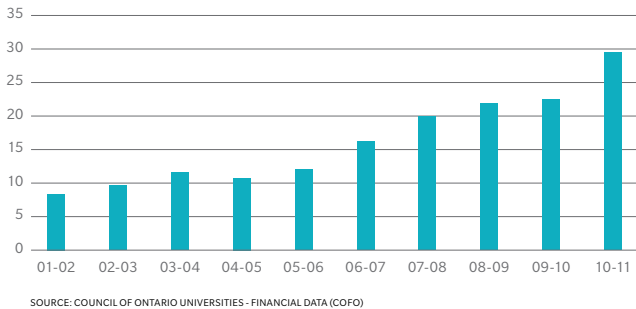
Ryerson's growth in citations has grown steadily between 2001 and 2010. In 2010, Ryerson had 3,196 citations, representing a 639-fold growth between 2001 and 2010.

For the period 1999-2008, Ryerson was ranked first in research publication growth amongst Canadian undergraduate universities, with a remarkable 379% increase (Research Infosource Inc.).

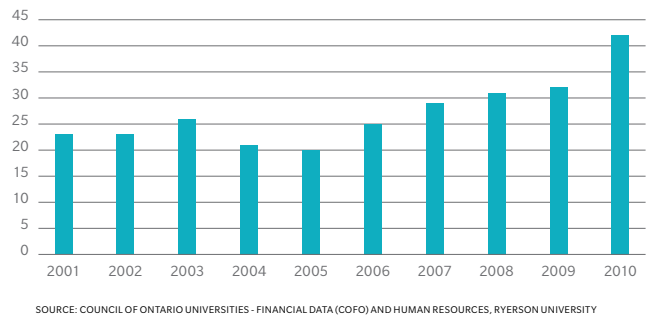
**Figure 1. Publications by Year (Number)**



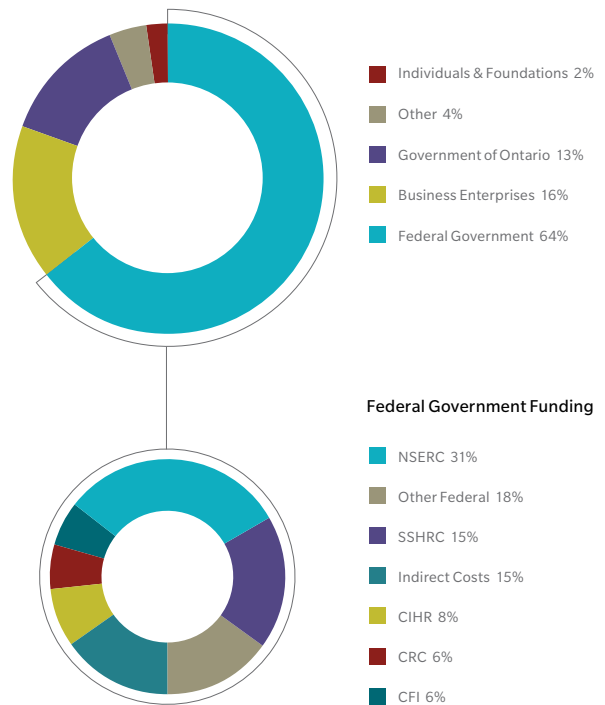
**Figure 2. Total Research Funding (\$ Millions)**



**Figure 3. \$ Full-time Faculty (\$ Thousands)**



**Figure 4. Research Funds Awarded by Sector (2010-2011)**



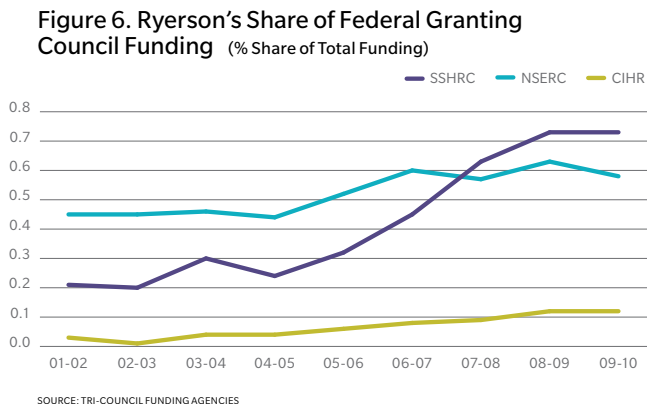
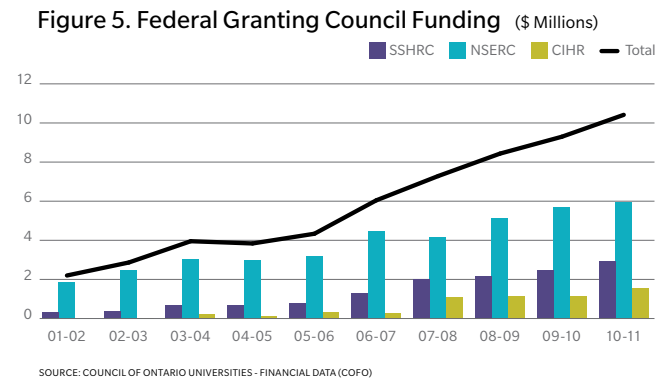
## Research Funding

Total research funding at Ryerson has almost doubled over the last five years, from \$16M to \$29M. Total research funding increased by 30% over the last year alone (see **Figure 2\***).

Research intensity is measured as the value and number of peer-adjudicated research grants per eligible faculty member. **Figure 3\*** shows the change in research intensity across all faculties between 2001 and 2010.

This annual report provides a current breakdown of Ryerson's research funding, by sector, as shown in **Figure 4\***. The following is a synopsis of key federal, provincial and industry programs that have contributed to this astonishing rise in research funding, which increased by 32%.

From 2001-2002 to 2010-2011, contributions from the federal research granting councils have comprised an increasing amount of total research funding at Ryerson, rising from 26.3% to 35% as shown in **Figure 5\***, while **Figure 6\*** shows Ryerson's share of total Tri-Council funding by program.



\*for the fiscal period April 1, 2010 through March 31, 2011.



Krishna Kumar

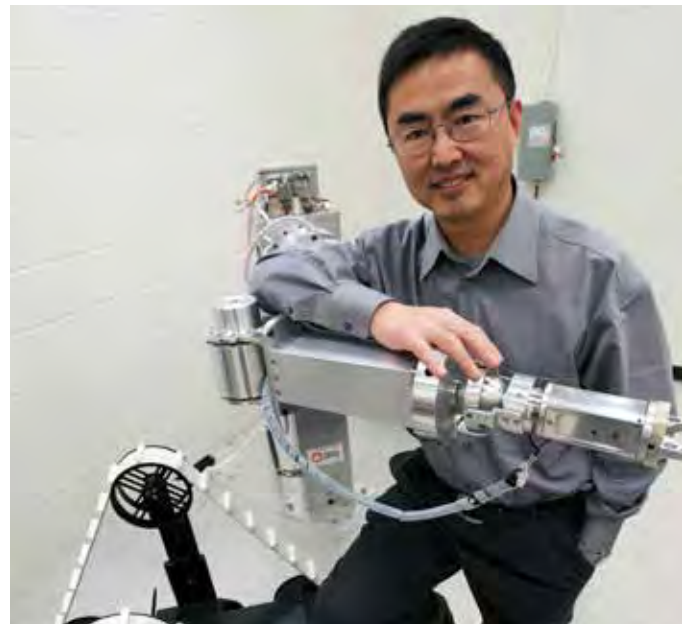
## Canada Research Chairs

Tri-Council funding earned by Ryerson researchers directly influences other programs, such as allocations of federal indirect costs and the university's **Canada Research Chairs** (CRC). The CRC program was introduced by the federal government in 2000 to help universities recruit and retain excellent faculty members. Ryerson's CRCs strive to achieve research excellence in engineering and the natural sciences, health sciences, humanities, and social sciences. Through their research they improve our depth of knowledge and quality of life, strengthen Canada's international competitiveness, and help train the next generation of highly skilled people through student supervision and teaching.

As a result of Ryerson's increase in Tri-Council funding it has been awarded two new CRCs. Each chair is associated with a federal research-granting council.

Two Aerospace Engineering professors had their chair appointments renewed this year. In October 2010, as the CRC program celebrated 10 years, it was made official that **Krishna Kumar**, who specializes in satellite research, was renewed as the CRC in Space Systems Engineering. And in April 2011 **Guangjun Liu**, whose research is leading to unique ways to design and control robots and aircraft systems, was renewed as the CRC in Control Systems and Robotics.

Other Canada Research Chairs at Ryerson include **Irene Gammel** (Modern Literature and Culture), **Ling Guan** (Multimedia and Computer Technologies), **Michael Kolios** (Biomedical Applications of Ultrasound), **Sri Krishnan** (Biomedical Signal Analysis), **Catherine Middleton** (Communication Technologies in the Information Society), **Marcello Papini** (Abrasive Jet Technology), **Souraya Sidani** (Design and Evaluation of Health Interventions), **Gideon Wolfaardt** (Environmental Interfaces and Biofilms), and **Victor Yang** (Bioengineering and Biophotonics).



Guangjun Liu





Jennifer Lapum



Trevor Hart

## Tri-Council (CIHR, NSERC, SSHRC)

### Canadian Institutes of Health Research – CIHR

CIHR is Canada's primary federal agency for health research and aims to excel, according to internationally accepted standards of scientific excellence, in the creation of new knowledge and its translation into improved health for Canadians, more effective health services and products, and a strengthened Canadian health care system. During the 2010-2011 fiscal period, Ryerson was awarded 12 new CIHR grants totalling \$1.68M. Some of the examples of the innovative research taking place at Ryerson as a result of this funding are included here.

**Trevor Hart** (Psychology) will lead a study of *Factors that Protect Gay and Bisexual Men against HIV*. During this three-year study he will survey 400 men practising varying degrees of safer sex at three different points in time. He and his team will also interview men who were at high risk for HIV but who have a record of consistently safer sex. By documenting the beliefs, practices, and strategies that these men use to safeguard themselves, researchers and health service providers will be able to create effective community and individual interventions to impede the spread of HIV.

**Jennifer Lapum** (Daphne Cockwell School of Nursing) is a registered nurse with extensive clinical background in critical care nursing who is leading the project *The 7024th Patient: Poetically and Visually Dwelling in Patients' Stories of Heart Surgery*. Her research focuses on the promotion of humanistic practices and policies in healthcare, with a particular interest in "technologized environments" and cardiovascular health. She is also a poet, and often uses arts-informed research methods, including poetry, stories and photography to illustrate and communicate her findings. Her work has been presented internationally and published in numerous healthcare journals.

**Candice Monson** (Psychology) is the co-principal investigator with **Naomi Koerner** (Psychology) and co-investigator **Tae Hart** (Psychology) on the CIHR-funded project *A Longitudinal Examination of Interpersonal and Individual Factors in PTSD*. The five-year Operating Grant will allow Monson to further her research on risk and resilience factors in trauma recovery, and contribute to the understanding of the role of PTSD (post-traumatic stress disorder) in close, personal relationships.



Debora Foster

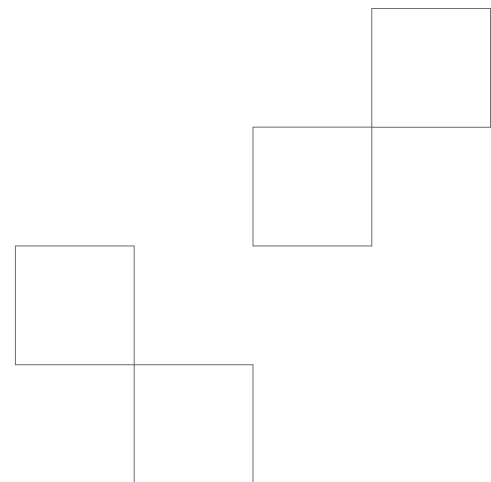
### Natural Sciences and Engineering Research Council of Canada (NSERC)

NSERC aims to make Canada a country of discoverers and innovators for the benefit of all Canadians. The agency supports university students in their advanced studies and NSERC researchers are on the vanguard of science, building on Canada's long tradition of scientific excellence. In 2010-2011, Ryerson was awarded more than \$5.86M dollars as a result of 76 new research grants. The following is a sampling of the avant-garde projects that are funded by NSERC.

NSERC's CHRP program supports focused interdisciplinary collaborative research projects involving any field of the natural sciences, engineering and health sciences. **Sri Krishnan** (Electrical and Computer Engineering), a Canada Research Chair in Biomedical Signal Analysis, received this award for his research in signal processing for predicting sudden cardiac death. The NSERC-CHRP award recognizes innovation and projects that have the potential to lead to health benefits for Canadians, more effective health services, and/or economic development in health-related areas.

**Debora Foster** (Chemistry and Biology) is taking a different approach to controlling the onset of *E. coli*-related illness. As the sole principal investigator, Foster is working with researchers from the Universities of Southern California and San Diego State through Discovery Grant funding to investigate an antimicrobial peptide that could be sprayed on fruits and vegetables potentially contaminated with Shiga toxin-producing *E. coli*. The peptide interferes with the DNA repair mechanisms that enable the *E. coli* bacterium to survive exposure to human gastric acid.

**Margaret Moulson's** (Psychology) innovative research program in the Psychology Research and Training Centre will benefit from a five-year Discovery Grant. Moulson's project *Experience and Face Perception: Investigating Plasticity in the Developing and Mature Systems* combines behavioural and electrophysiological methods to investigate the psychological and neural underpinnings of aspects of face perception from infancy to adulthood. Deciphering information from faces is crucial to social functioning.





Enza Gucciardi



Fei Song

**Fei Song** (HR and Organizational Behaviour) is the principal investigator on a three-year Standard Research Grant for *Understanding Individual and Group Unethical Decision-making and Behaviour*. In response to well-documented ethical transgressions across our culture, Song will investigate the little-known research area of (un)ethical decision-making and behaviour at the group, rather than the individual, level. She will try to determine what factors may influence the process and outcomes to provide prescriptive policy recommendations.

**Enza Gucciardi** (School of Nutrition) received funding for her research on *Migration and Diabetes: Diabetes Prevention and Management in the Black Caribbean Communities in Toronto* as a co-applicant. This is an investigation into why certain immigrants are at an increased risk of developing diabetes and how to best respond to needs. There is evidence that immigrants and racialized communities do not always benefit from diabetes prevention and management programs.

### Social Sciences and Humanities Research Council (SSHRC)

In 2010-2011, Ryerson was awarded 22 new grants from SSHRC totaling \$1.86M. SSHRC is the federal agency that promotes and supports post-secondary based research and training in the humanities and social sciences. Its programs and policies enable the highest levels of research excellence in Canada, and facilitate knowledge-sharing and collaboration across research disciplines, universities and all sectors of society. Here is a synopsis of some of the cutting-edge research being conducted by our faculty.

The ancient Greeks understood the healing power of art, and so do **Peggy Shannon** and **Candice Monson**. Fifth-century soldiers were required to watch plays about combat, as they provided opportunities for soldiers to discuss the horrors of combat, and to recover from the trauma. Can classical Greek drama help today's active military and veterans, and in particular female soldiers? **Shannon** is Chair of Ryerson's Theatre School and principal investigator of *The Women and War Project*, for which she received a two-year, \$200,000 SSHRC Partnership Development Grant. **Monson** (Psychology) is an expert on post-traumatic stress disorder. Together, they will investigate women's past and present experiences of war through plays, workshops and international symposia.

**Lorraine Janzen Kooistra** (English) was awarded a three-year Standard Research Grant for *The Yellow Book, 1890s Print Culture, and the Digital Vision*. As the principal investigator, in collaboration with Dennis Denisoff (English) she is developing an online scholarly edition of *The Yellow Book*, an illustrated periodical central to the study of fin-de-siècle visual and literary culture. Her monograph, *Poetry, Pictures, and Popular Publishing: The Illustrated Gift Book and Victorian Visual Culture 1855-1875*, changes the map of poetry's place in Victorian everyday life and consumer culture.

**Ken Moffatt** (Social Work) is investigating through his project *Unsettling the Classroom: Social Work Education in the Context of New Managerialism*, the ways that new "managerialism" is influencing social work education in order to better understand how social work educators can best respond to the new paradigm in which they teach. The aim of the research is to understand how educational practices can be focused upon social justice, intellectual rigor and critical reflection while operating within the governance structures of new managerialism.



Candice Monson and Peggy Shannon



Habiba Bougherara

## Early Researcher Awards (ERA)

The ERA program helps promising, recently-appointed Ontario researchers build their research teams of undergraduates and graduate students, postdoctoral fellows, research assistants, associates, and technicians. The goal of the program is to improve Ontario's ability to attract and retain the best and brightest research talent.

**Frank Russo** (Psychology) is a cognitive scientist, musician and "armchair-engineer." He is co-inventor of the award-winning Emoti-Chair and several other assistive and rehabilitative technologies. The ERA grant will allow Russo to utilize behavioural, electrophysiological, and computational methods to investigate the enhancement of music perception in deaf and hard-of-hearing individuals through the use of extra-auditory input.

**Habiba Bougherara** (Mechanical and Industrial Engineering) is developing long-lasting joint replacements. Current medical implants, including hip and knee replacements, last from 10 to 15 years. After that period of time patients face a return to the operating table. Bougherara is designing new biomaterials for medical implants and that will last substantially longer, reducing the number of surgeries and cutting health care costs.

The ERA programs include an outreach component, whereby principal investigators and their research teams can engage youth through stimulating, on-campus experiences. The goal is to help researchers mentor the next generation of researchers.



Frank Russo

## Community-Based and Industry Investments

Scholarly, research and creative activity at Ryerson epitomizes collaboration. Industry and community-based research collaboration generates benefits for both parties. The willingness of industry to invest in university-based research is indicative of the commercial relevance of Ryerson’s knowledge and innovation. Research collaboration with industry takes a number of forms at Ryerson. It can involve a formally funded industrial research project, a government funded project or a non-funded collaboration. Over the past years these collaborations have increased due to a large number of government matching programs that promote industry-university interactions. **Figure 7** shows the contribution of these investments as a percentage of total research funding at Ryerson over the past several years, while **Figure 8** provides detail on the matching program.

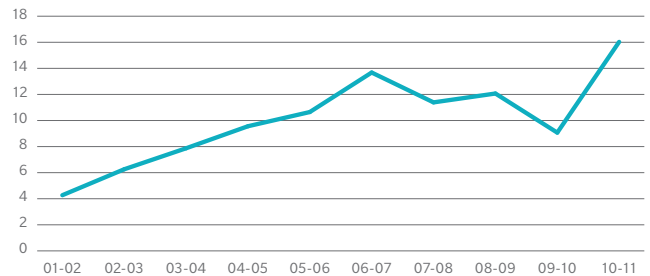


Charles Davis

**Charles Davis** (School of Radio and Television Arts), holds the Edward S. Rogers Research Chair in Media Management and Entrepreneurship, and has been awarded a grant from the Ontario Media Development Corporation’s Entertainment and Creative Cluster Partnerships Fund. Davis will lead a team of partners conducting research on effective product innovation practices in the creative industries. A discussion paper has been prepared and workshops and industry events are taking place.

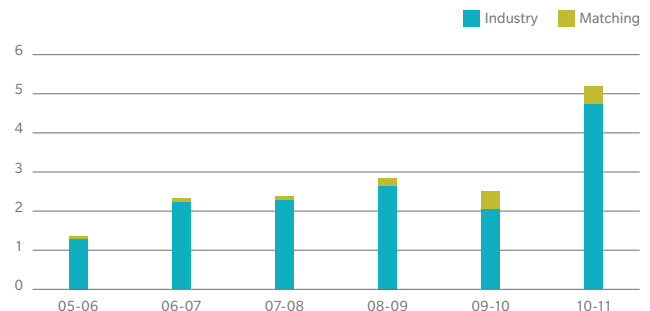
**Wendy Cukier** (IT Management) and her colleagues strive to promote diversity in leadership through their project *DiversityLeads*. The project builds on previously funded SSHRC projects as well as on applied research by community partners. *DiversityLeads* has an ambitious research and knowledge mobilization agenda to develop a comprehensive, integrated, multi-level approach to the challenges of managing diversity and promoting inclusive leadership.

**Figure 7. Growth of Industry Funding (% of Total Funding)**



SOURCE: RYERSON UNIVERSITY DATA

**Figure 8. Industry Funding (\$ Millions)**



SOURCE: RYERSON UNIVERSITY DATA

**Deborah Fels** (IT Management) is a co-investigator on a two-year grant from the National Institutes of Health for *Innovative Techniques for Creating and Distributing Described Video for the Blind*. The project's two goals are: 1) to develop a robust web-based platform to support the production and deployment of video description and annotation by a broad base of consumers, creators, and researchers, and 2) to use this platform to support rigorous research into innovative approaches to description creation and consumption. Her research partner in this project is the Smith-Kettlewell Eye Institute in San Francisco.



Deborah Fels

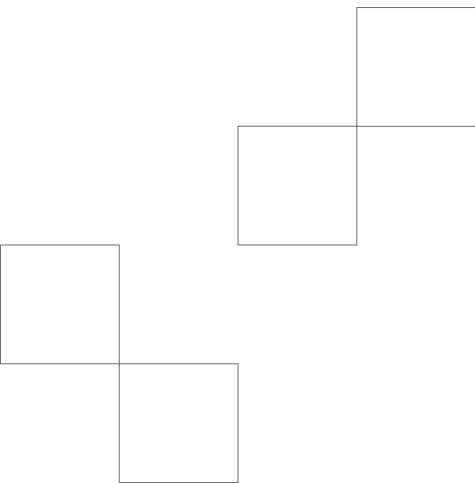


Pierre Tremblay

**Pierre Tremblay** (Image Arts) was awarded a grant from the OAC for his project *300 jours d'indulgence — compatabilité avec l'au-delà*. His work can be found in the collections of the Musée Carnavalet, the Bibliothèque Nationale and the Musée Rodin.

**Marusya Bociurkiw** (Radio and Television Arts) also received an OAC grant towards her film. *This is Not TV: Feminists, Cameras and Cablevision*. A longtime activist in the arts, social justice, and queer communities, she has worked as a media artist for the past fifteen years.

**Pamela Palmater** (Politics and Public Administration) is a Mi'kmaq lawyer and member of the Eel River Bar First Nation in northern New Brunswick. She has been appointed as chair in Indigenous Governance and as the interim academic director of the newly created Centre for Indigenous Governance. Palmater's current research interests relate to Indigenous governance matters, such as how the recognition of First Nation jurisdiction and self-determination can contribute to stronger Indigenous families, communities, and Nations.



Pamela Palmater

As mentioned, there are a number of government matching programs. Through these programs, Ryerson and its industrial partners are able to obtain funding from the federal and provincial government to solve real world problems and commercialize research. Over the past year, Ryerson has received matching funds from such organizations as the Tri-Councils, the Ontario Centres of Excellence, MITACS, and the Federal Economic Development Agency for Southern Ontario.

### NSERC – Collaborative Research and Development (CRD)

The CRD program is intended to give companies that operate from a Canadian base access to the unique expertise and resources available at Canadian post-secondary institutions, and in the process train students in the essential technical skills required by industry. The mutually beneficial collaborations are expected to result in industrial and/or economic benefits to Canada. CRD grants support well-defined projects undertaken by university researchers and their private sector partners. Direct project costs are shared by the industrial partners and NSERC.

Working with Bombardier, **Fengfeng (Jeff) Xi** (Aerospace Engineering) has secured a CRD to investigate the *Development of an Aircraft Morphing Wing using Variable Geometry Truss Mechanisms*. Morphing airborne technology is an innovative replacement for conventional control surfaces that positively affects the aerodynamics, flight performance, and stability of the aircraft. Wing level morphing alters the entire wing shape to positively enhance the overall aerodynamics and provide near-optimal performance for flight. This project fits well with Canada's vision to advance research on "green" aircraft with low fuel consumption and pollution. The results of this research will lay the foundation for long-term research and development of morphing aircrafts and impact new aircraft design and manufacturing.

### Ontario Centres of Excellence (OCE) - Collaborative Research

OCE is Ontario's premier research-to-commercialization vehicle. Created in response to the critical competitive challenges facing Ontario businesses, OCE fosters economic growth through support for industrially relevant R&D, the opening of new market opportunities, and the commercialization of leading-edge discovery.

With funding from OCE, **Khaled Sennah** (Civil Engineering) researches techniques to design, evaluate, strengthen and rehabilitate bridges in collaboration with Shoeck Canada Inc., Transcels-Puttrall Canada Inc., McCormick Rankin Corporation, and Putral Canada Inc. Sennah continues to investigate the use of newly developed reinforcing bars made of glass fibre-reinforced polymers (GFRP). GFRP bars are more corrosion-resistant and have high tensile strength and optimal bonding with concrete – properties that will save engineers time and money.

### MITACS - Accelerate

The Accelerate program is Canada's premiere research internship program, offered by Mitacs, a national, not-for-profit research organization. Mitacs-Accelerate connects companies with graduate students and postdoctoral fellows at over 50 research-based universities who apply their specialized expertise to business research challenges. Interns transfer their skills from theory to real-world application, while the companies gain a competitive advantage by accessing high-quality research expertise. Ryerson is a leader in Mitacs-Accelerate funding with 16 projects receiving funding in 2010-2011.

With support from Mitacs, **Ron Babin** (IT Management) and MBA student Darnel Leader are asking a simple question: "If you had a choice, would you prefer to receive bills by paper mail or email"? The answer to this question is important to his partner Symcor Services Ltd., which handles bill processing for major banks and credit card companies. Preliminary findings reveal that while young people are comfortable with e-bills, paper bills prove more difficult for recipients to ignore.

Ron Babin





**Federal Economic Development Agency for Southern Ontario (FedDev) - Applied Research and Commercialization (ARC)**

The focus of ARC is to bridge the gap between research and commercialization through collaboration with small- and medium-sized enterprises (SMEs) and post-secondary institutions. Funding will enable Ryerson to leverage its expertise in digital media and commercialization through its new Digital Media Zone (DMZ). The DMZ will become an effective docking point for industry to tap into Ryerson's talent and research readiness in order to move Canada forward on the global stage. Ryerson received funding for a total of 14 projects. Here are examples of ARC-funded projects.

**Mary Foster** (Ted Rogers School of Marketing), director of the Education Management Research Institute, realizes that for the marketing research industry to remain relevant it must find more effective mechanisms of collecting representative, reliable and up-to-date information about consumer behaviour in partnership with Delvinia. Through online testing of market research techniques that motivate consumers to participate, she hopes to develop techniques that yield more accurate, timely and comprehensive data.

**Richard Lachman** (School of Radio and Television Art) is going to change the way you visit museums. In partnership with the documentary-production company Kensington Communication, his demonstration will integrate the Royal Ontario Museum's existing WIFI network with location-sensing technology for real-time delivery of relevant museum content. A traditional museum guide will become a game-like experience for museum patrons of all ages as they explore a gallery's exhibits and collections.



Mary Foster



Richard Lachman

# Knowledge Transfer and Commercialization, Innovation and Impact

One of the most important outcomes of research is its societal benefits, whether in Canada or globally. These may be improvements in health and health-care management, education, human rights, cultural innovation, social well-being, or energy conservation, to name a few. Increasingly, such societal benefits are being used to measure the success of research.

It is not an easy task to quantify the enormous impact that faculty members and their students have on society through the exchange of ideas via print, digital media, exhibitions, performances, discussions with policy-makers, or participation on expert committees. Despite this, Ryerson's Strategic Plan for SRC activity is committed to exploring new ways to address this challenge. The following are a few of the many examples of Ryerson faculty whose work benefits society.

### Knowledge Transfer and Commercialization

To maximize the return on public investments, the Ontario and federal governments have developed research agendas linked closely to knowledge and technology transfer and to a stronger commitment to commercialization. Ontario's research and innovation strategy notes that these factors are critical to creating and sustaining the next generation of high-knowledge, high-value jobs to ensure ongoing prosperity and competitiveness.

The federal science and technology strategy stresses the key role of translating knowledge into commercial applications for economic growth and improved quality of life. In this context, research proposals may be judged on both a peer review assessment of their scientific excellence and on their strategic value, including the potential for industrial application, economic and social benefit.

Ryerson's social mission to enrich society through the application and commercialization of its SRC is well aligned with these government priorities.

### Knowledge Transfer at its Best: Engaging Parliamentarians

In October 2010, **Catherine Middleton** (IT Management), Canada Research Chair in Communication Technologies in the Information Society, delivered a "Big Thinking" lecture. Organized by the Canadian Federation for the Humanities and Social Sciences, the lectures bring research and scholarly work directly to parliamentarians, policy-makers, government officials, NGOs, and media. Middleton drew upon her extensive research on new communication technologies, and her interests in mobile devices and fixed and wireless broadband networks to share her perspective on how Canadians use — or don't use — the internet in their daily lives.



Catherine Middleton



### Experiential Learning in The Zone

Ryerson is renowned as a leader in experiential education, providing students with an education that emphasizes the relevance and integration of theory and practice. Students thrive in an educational environment that offers numerous and varied opportunities to develop their knowledge and technical expertise, balanced with their personal, cultural, social and entrepreneurial goals and principles.

In April 2010, Ryerson launched a new vehicle for experiential learning, the Digital Media Zone or “the Zone” set atop Yonge-Dundas Square. The Zone model is based on the success of Ryerson’s *Students in Free Enterprise* group. The Zone was created as a youth-focused innovation zone that is open to students and alumni at all levels.

In the Zone, students apply their academic knowledge to their real-world passion alongside like-minded individuals fostered by a multidisciplinary, collaborative environment. With the goal of removing barriers for young start-ups, the Zone model alleviates start-up costs and facilitates industry and other partnership connections, increasing the chance of business success.

## Ryerson Research Centres and Institutes

Ryerson University has over 24 centres and institutes and more than 100 laboratories. These units provide valuable platforms for the exchange of ideas amongst researchers. Bringing together information in these collaborative environments fuels the advancement of multidisciplinary research and innovation, and provides a common point of focus for students and researchers. The following is an example of two centres that contribute to Ryerson's SRC mission.

### Centre for Urban Energy

Recognizing one of the greatest challenges facing cities today, the Centre for Urban Energy (CUE) conducts research related to energy. Through academic, public and private sector collaborations, CUE researchers will light the way in developing and commercializing innovative solutions to urban energy issues. CUE's collaboration with industry will succeed by relating research to entrepreneurship, risk, and innovation via a multidisciplinary approach that taps the boundless enthusiasm and skills of Ryerson's faculty and students. This approach will move research results from traditional academic research into the industrial realm, while responding to public interest. With its ability to solve energy-related challenges, CUE faculty welcome collaborators who share their passion for benefiting society, the ecology and our economic futures.

### Diversity Institute (DI)

Ryerson University's Diversity Institute (DI) undertakes research on diversity in the workplace to improve practices in organizations. DI focuses on gender, race/ethnicity, Aboriginal peoples, abilities, and sexual orientation, working directly with industry, government, not-for-profit, and academic organizations to promote inclusion. Supported by a \$1M SSHRC Community University Research Alliance (CURA) grant with more than thirty partner organizations, the DI DiversityLeads project is focused on advancing underrepresented groups into leadership roles.



## University-based Centres

Centre for Immigration and Settlement  
Centre for Labour Management Relations  
Centre for the Study of Commercial Activity  
Law Research Centre  
Ryerson University Analytical Centre

## Faculty-based Centres

### Arts

Institute for Stress and Wellbeing Research  
Modern Literature and Culture Research Centre  
Psychology Research and Training Centre

### Communication and Design

Transmedia Research Centre  
Journalism Research Centre  
Ryerson Image Centre

### Community Services

Centre for the Advancement of the Scholarship for  
Teaching and Learning  
Ryerson Centre for Children, Youth and Families  
Nursing Centre for Education and Research on Violence  
Against Women and Children  
Centre for Food Security  
Centre for Global Health and Health Equity  
Centre for Health in at Risk Populations  
Centre for Nutrition Communications

### Engineering, Architecture and Science

Computer Networks Centre  
Centre for Urban Energy  
Ryerson Institute for Aerospace Design and Innovation

### Ted Rogers School of Management

Centre for Learning Technologies  
Centre for Voluntary Sector Studies  
The Diversity Institute

## Invention Disclosures

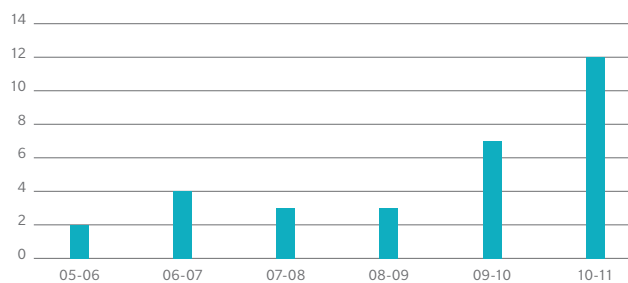
A university invention disclosure is a confidential description of any invention that an innovator has made in the course of undertaking academic research. At Ryerson, a faculty member is required to file an invention disclosure with the OVPRI for any invention upon which he or she intends to file a patent application.

The OVPRI's effort to advance its commitment to commercialization has resulted in a dramatic increase in faculty member's interest and activity in commercialization over the past year. OVPRI staff provides one-on-one advice to interested faculty, as well as ongoing information about various programs to the whole research community. This has resulted in an increase in invention disclosures, the precursor to commercialization activity as shown in **Figure 9**.

There are three avenues to commercialize research discoveries at Ryerson: MaRS Innovation, Ontario Partnership for Innovation and Commercialization and the efforts of individual faculty.

**Figure 9. Invention Disclosures per Year**

(Number of Disclosures)



SOURCE: RYERSON UNIVERSITY DATA



Victor Yang

### MaRS Innovation

In the past year, the relationship with MaRS Innovation (MI) has been instrumental in supporting and increasing commercialization activities at Ryerson. MI has taken on the commercialization role for two new Ryerson inventions, representing over \$95,000 in new funding.

**Victor Yang** (Electrical Engineering), a Canada Research Chair in Bioengineering and Biophotonics is solving a problem for surgeons: the body is not entirely motionless during surgery, making it difficult to match images of the body generated during surgery with pre-operative images. Yang is developing a method to match “intraoperative real-time optical topology surface information” to pre-operative images, potentially decreasing surgical times, increasing accuracy of procedures and reducing complications.

### Ontario Partnership for Innovation and Commercialization (OPIC)

Ryerson has maintained its membership in OPIC that was successful in its application to the Ontario Centres of Excellence for two more years of funding. OPIC has received over \$400,000 for a Proof of Principle (PoP) fund as well as \$613,000 in funding to support commercialization activities at the nine member institutions. Ryerson's share of the operations funding is approximately \$27,000. In the latest OPIC PoP call Ryerson submitted three applications for stage one funding (\$10,000 each) and all were approved.

**Sandra Tullio-Pow** (School of Fashion) and MA student Kirsten Schaefer are helping breast cancer survivors and post-menopausal women get a good night's sleep. Tullio-Pow is collaborating with Joyce Nyhof-Young at Princess Margaret Hospital to create sleepwear that takes into consideration hot flashes, chest asymmetry, skin sensitivity, and night sweats. Fashion designers engineered carefully placed seams to camouflage the upper body in breathable fabrics with superior absorbency, leading to improved comfort and sleep quality while also enhancing self-image.



ObserverFX, RTA's Nuit Blanche Installation

Ryerson has maintained its membership in OPIC that was successful in its application to the Ontario Centres of Excellence for two more years of funding.



## Lighting Up Nuit Blanche

In the Arts, knowledge transfer and impact comes through the public performance or display of works. An example of this can be seen through Ryerson's participation in Toronto's 2011 Scotiabank Nuit Blanche, an all-night contemporary art event that attracted over a million people to the city's downtown core. Led by the Faculty of Communications and Design Schools, Ryerson first participated in the celebration in September 2007. Once again, Ryerson played host to several independent projects and exhibitions on the campus under the banner Light Up the Night, offering a peek into the creative and leading-edge research activities of the talented faculty, staff and students in the Schools of Graphic Communications Management, Image Arts, Interior Design, Theatre, Radio and Television Arts and the Rogers Communication Centre. The five installations selected to represent Ryerson were:

*Cirrus*, a student project of the Department of Architectural Science that allowed viewers to manipulate the angle and formation of a representation of atmospheric clouds.

*Reeds*, **David Bouchard's** (School of Image Arts) video projection in which abstract geometric light reeds were animated as if blown by an invisible wind.

*Honey, I'm Home*, a collaboration of the Diversity Institute in Management and Technology and the School of Image Arts with Ryerson alumni **Nicole Bazuin** and University of Toronto Visual Studies students **Sarah Allen Eagen** and **Cheryl Hsu**, under the guidance of Ryerson's **James Warrick** (Image Arts). Visitors of all genders, ages and cultural backgrounds were invited to perform the "father" role in an original family sitcom broadcast to the live audience.

*Observer FX*, an installation in which Radio and Television Arts alumni and collaborators incorporated the multiple elements (photographs, audio and video) "submitted" by audience members into live audio-visual performances.

*Egerton Falls*, a collaboration of the School of Interior Design, the Theatre School and Radio and Television Arts that transformed Ryerson's Lake Devo into the imaginative but life-like *Egerton Falls* by projecting video onto existing rock and water formations.



# The Next Generation

Ryerson is committed to creating meaningful research experiences for students and postdoctoral fellows, providing them with intensive research training as well as opportunities to participate in faculty-mentored research projects in collaboration with industry partners.

### Federal Economic Development Agency for Southern Ontario (FedDev Ontario) Graduate Enterprise Internship (GEI)

FedDev Ontario's GEI program supports the development of highly skilled workers in Southern Ontario by providing business and management experience to graduate students and recent graduates of science, technology, engineering and mathematics programs. GEI funding helps post-secondary institutions in southern Ontario arrange internships with structured mentoring opportunities in small and medium-sized enterprises (SMEs). The GEI program is also meant to build the next generation of potential managers to lead business innovation in the future, and enable SMEs to benefit from the technical knowledge of Ryerson's graduate students and recent graduates.

### Mitacs Elevate Postdoctoral Fellowships

Mitacs Elevate program funding supports recent postdoctoral fellows develop cutting-edge research, business, entrepreneurship and scientific management skills through collaboration with local industry. In the process, companies gain access to a highly qualified and uniquely trained talent.

**Mitacs Elevate Industrial Fellowship** valued at \$140,000 was awarded to postdoctoral fellow **Naresh Vempala** under the supervision of **Frank Russo** (Psychology). Vempala is undertaking a project in partnership with WaveDNA Inc. to develop a musical analysis engine that yields judgments of similarity in accord with human judgment.

**Mitacs Elevate Strategic Fellowship Grants** valued at \$110,000 was awarded to postdoctoral fellow **Ozgur Colpan**, under the supervision of **Alan Fung** (Mechanical and Industrial Engineering). Colpan is developing a two-stage biomass gasifier and solid oxide fuel cell system. His research has attracted interest from a company wanting to apply his skill and knowledge to develop a micro fuel cell as an alcohol detector for breath analyzers.

Figures 10, 11, and 12 depict Ryerson's growth in master's and doctoral degree enrollment and active post-doctoral fellows over a ten-year period. While the master's and doctoral enrollment numbers have leveled off in the last two to three years the significant increase in the number of part-time master's students is noteworthy.

Figure 10. Master's Degree Enrollment (Number of Students)

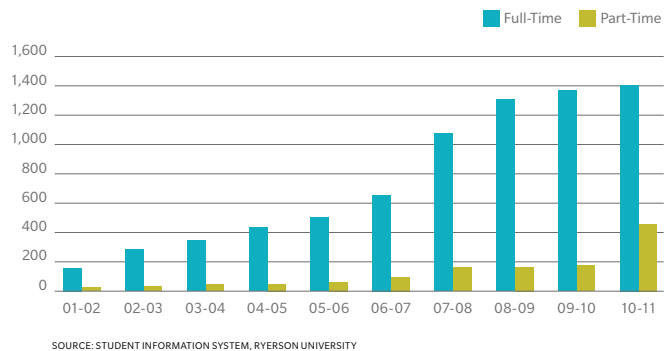


Figure 11. Doctoral Degree Enrollment (Number of Students)

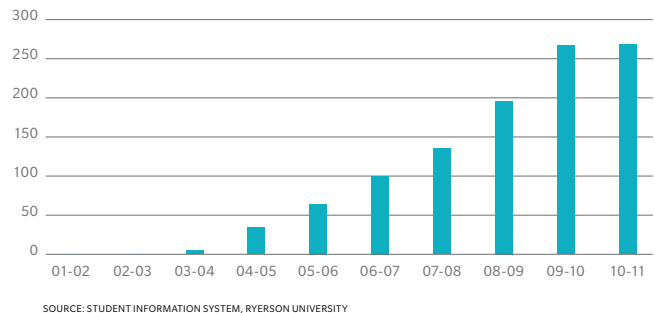
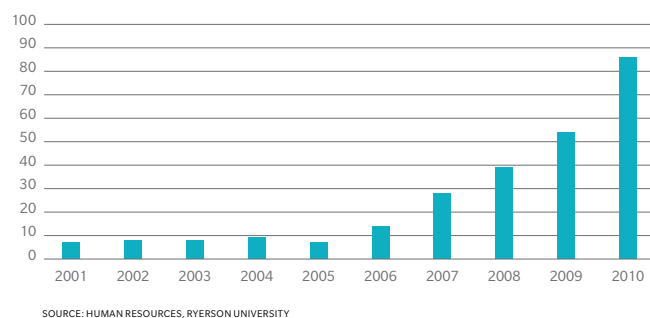
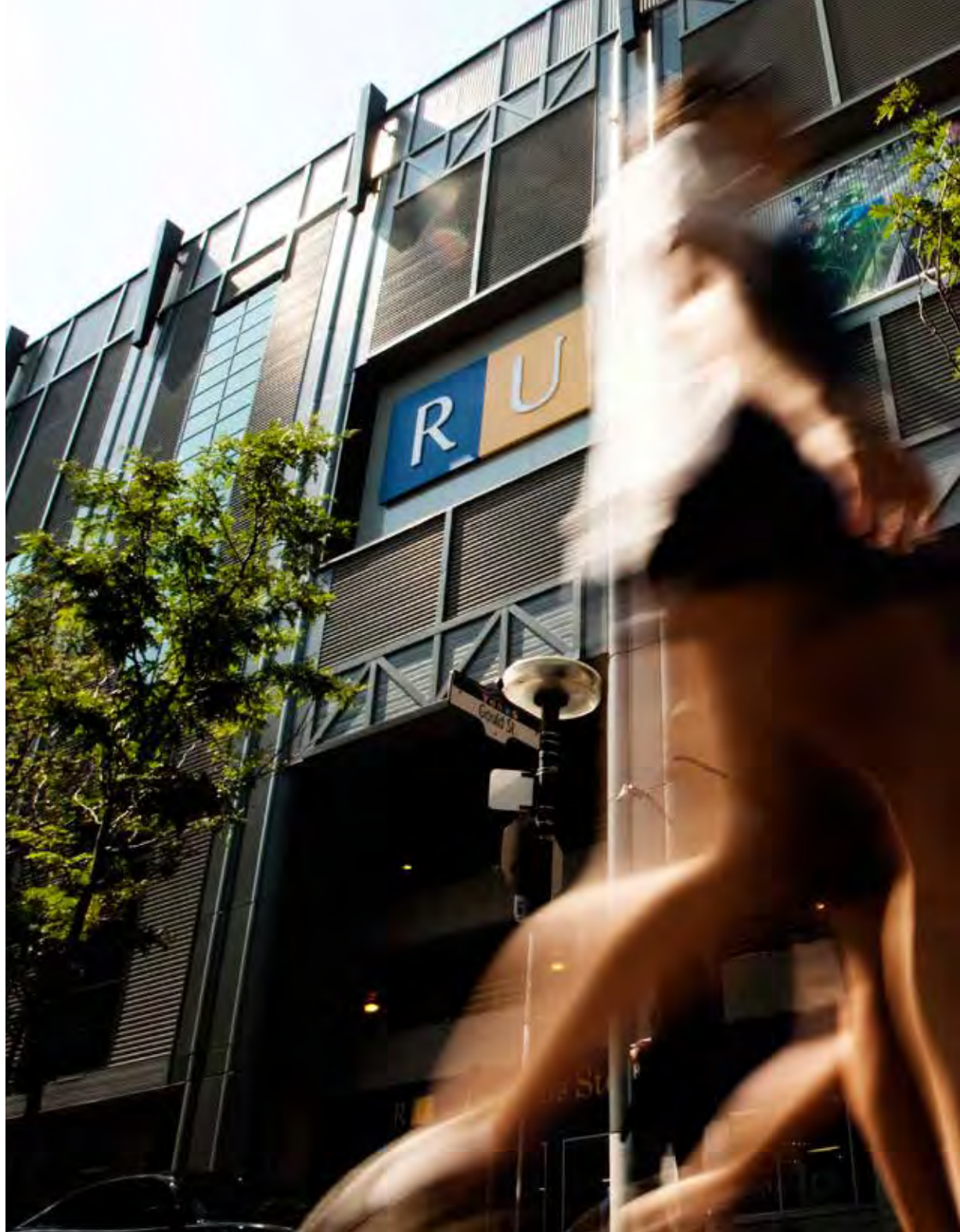


Figure 12. Post-Doctoral Fellows (Number of Fellows)





Researchers benefit by working with talented young students who have the potential to become graduate and postgraduate students, and research colleagues.



## Undergraduate Research Opportunities (URO) Scholars

Now in its second year, the 2010-2011 URO Scholars Program supported 58 scholarships. During the summer, three workshops were hosted by the OVPRI on topics such as writing research grants, research methodologies and disseminating research. In 2010-2011 there were also three “Retro-Scholars”, students who took part in the program’s first year and have continued to work with faculty members on related research projects. The time that researchers contribute to the URO Scholars Program is invaluable. The students develop a deep understanding of the high-calibre research underway at Ryerson, and how they can contribute to that research as they progress into graduate level programs. Researchers benefit by working with talented young students who have the potential to become graduate and postgraduate students, as well as research colleagues.

**Hanny Ali** worked with **Howard Lin** (Business Management) in conducting a survey on Sri Lankan entrepreneurs in the GTA. Their study investigated the cultural factors that motivate immigrants from Sri Lanka to start businesses. Lin’s research on immigrant entrepreneurship, with a focus on the growing immigrant populations in Canada from the Pacific-Rim countries, enriched Hanny’s experience.

**Noah Kenneally** (Early Childhood Studies) worked with **Jason Nolan** in the School’s EDGE (Experiential Design and Gaming Environments) Lab to build on Kenneally’s long-term interest in hand-made, cardboard assistive devices for children with disabilities. Two years of observing their use has led to observed changes in physical and psychological development, improved opportunities for communication and social interactions, and increased autonomy.

## Ryerson Participates in Virtual Researcher on Call (VROC)

Faculty in engineering, architecture and science can now foster the next generation of young talent without leaving their labs or offices. Through a partnership with Virtual Researcher on Call (VROC), Ryerson faculty can help young students understand what university research is all about and why their high school education, especially senior elective courses such as calculus, are crucial to their post-secondary career. VROC uses technology to interest young people in a career in science. Videoconferencing, podcasts, and online forums give youth access to leading experts in health and natural sciences, technology, engineering, and mathematics at 19 post-secondary institutions across Canada. Faculty can choose to participate based on how much time they can spare. But the benefits are endless. VROC is an opportunity to promote the depth and breadth of research at Ryerson, encourage young minds to become future scientists, and attract undergraduate students.

## More Outstanding Student Achievements

### Professional Communication student leads CIHR-funded mental health initiative

**Keely Gregory**, a Master of Professional Communication student, was the principal investigator of a \$22,500 CIHR grant awarded to Healthy Minds Canada, a non-profit organization dedicated to funding and translating mental health and addiction research. The grant was used to support the *Open Minds Across Canada Mental Health Symposia 2011* which hosted nationwide same-day workshops, free to the public, profiling mental health issues.

### At 18, undergrad student is already a Woman of the Year

Criminal Justice undergraduate student and aspiring lawyer **Munira Abukar** was named by *Chatelaine* magazine as one of *Canada's Women of the Year 2011* for her work and activism in social housing. Munira was elected to the board of directors for the Toronto Community Housing Corporation this spring; her goal is to restore people's faith in the beleaguered organization and reach out to other tenants to increase their engagement.

### Entrepreneurship Student Wins Big

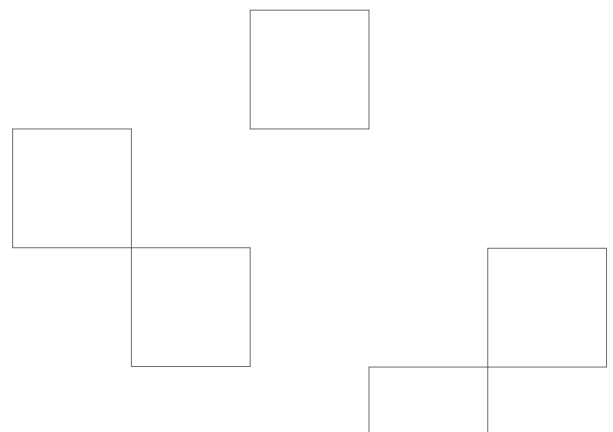
**Yanina Chevtchouk**, owner of Paria Lambina Inc. and full-time Entrepreneurship student, was named 2011 Student Entrepreneur Ontario Champion in the Advancing Canadian Entrepreneurship (ACE) competition. Chevtchouk represented Ontario at the regional level of competition.

### Design award goes to Ryerson students for the first time

**Rowena Au-Yeung**, **Krysten Erochko**, **Jamie-Lee Macdonald**, **Evan Pavka**, and **Melanie Sanderson**, students of the School of Interior Design, were awarded the RADO DesignGenNext award at the 2011 Interior Design Show for their ROC23° exhibit. This is the first time a Ryerson student group has won the award, which acknowledges both project design and content.

### Psychology Graduate Students Awarded for their Research

**Jennifer Newman** received an American Psychology-Law Society Undergraduate Thesis Award. The top three winners (including Newman) were invited to give a poster presentation at the 4th International Congress on Psychology and Law in March 2011, Miami.



### Architecture Students Win Extreme Redesign Challenge

A chair and a laptop cover — everyday items that underwent an extreme redesign and earned two teams of Ryerson Architectural Science students first and third place in an international competition.

The Flip ‘N Slip chair is the brainchild of **Dov Feinmesser** and **Aaron Hendershott**. It won them first place in the art and architecture category of the Extreme Redesign Challenge, and earned them a \$2,500 scholarship. The multi-functional chair can be configured in many ways to suit the imagination of the child. Children can use the Flip ‘n Slip one way as a rocker, turn it on its side to use as a table, flip it over to use as a slide ... the possibilities are endless.

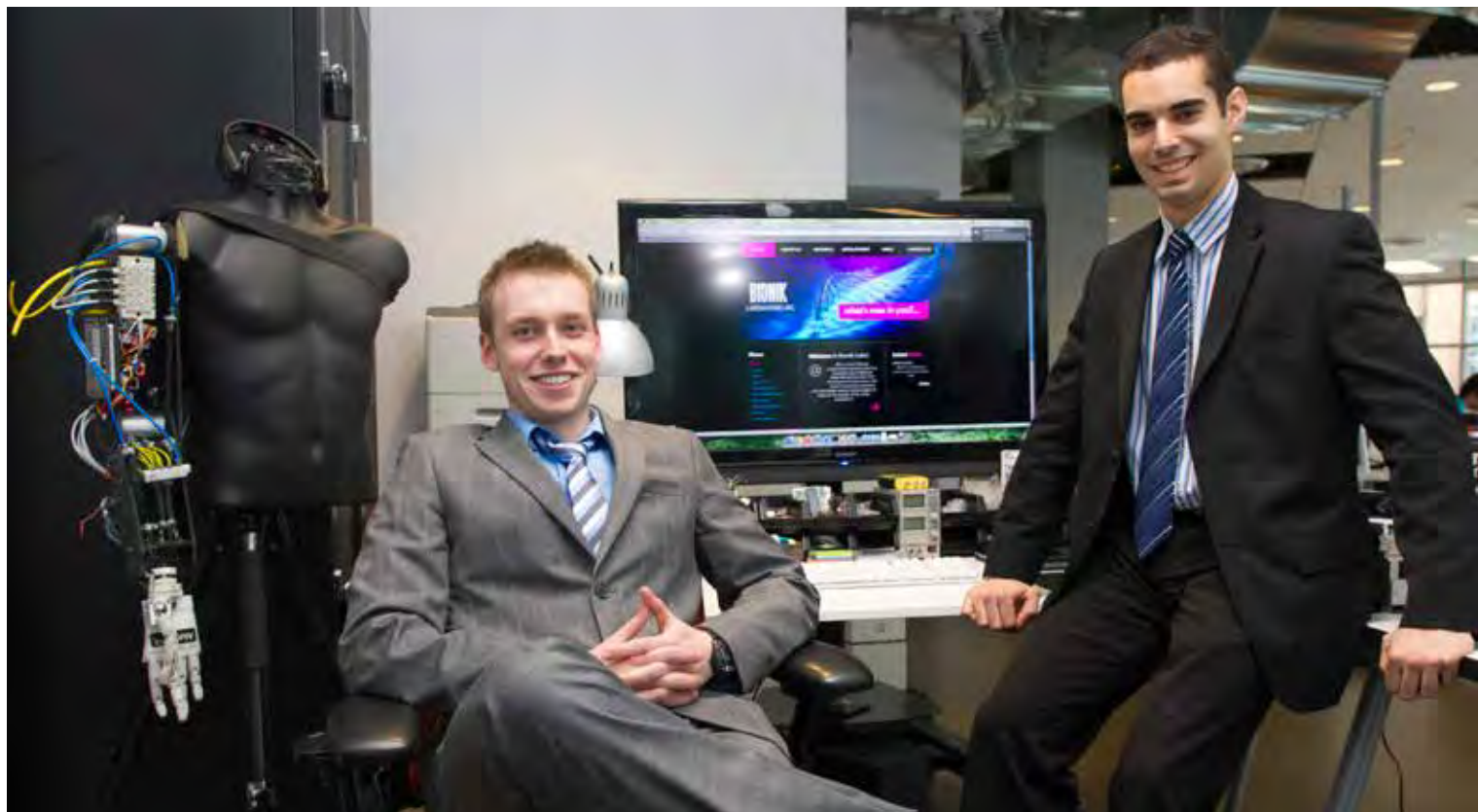
Capturing third place in the engineering category were **David Di Giuseppe** and **Arash Nourae** for their Desk2Go. They’re also fourth-year architecture students, and they designed a laptop case that folds into a desk. It’s meant to deal with the inherent problem of using laptops in a very bad place — on your lap, where they can overheat. Desk2Go morphs into a mini desk that supports the laptop for use anywhere and anytime.

### Architectural Science Students Win Second Place in International Housing Competition

**Jeff Cogliati, Steven Mauro, Johnathan Pascaris, and Karl van Es** won Second Place in the REZ International Student Competition for the Design of a University Residence Building. The units are characterized by three degrees of “openness” and the street is made active by including “drop down” tables for informal meetings or study sessions.

### Engineering Competitions

Ryerson students continued their historic achievement at this year’s Ontario Engineering Competition, along with significant success at the Canadian Engineering Competition (CEC). Ryerson was once again the only university to win two awards at CEC: Biomedical Engineering students **Thiago Caires** and **Michal Prywata** won the Innovative Design category for their pneumatic prosthetic arm, and **Roman Dabrowski** (Aerospace Engineering) and **Sasha Harpe** (Civil Engineering) placed in the Parliamentary Debate event.



Michal Prywata and Thiago Caires

# Looking Ahead

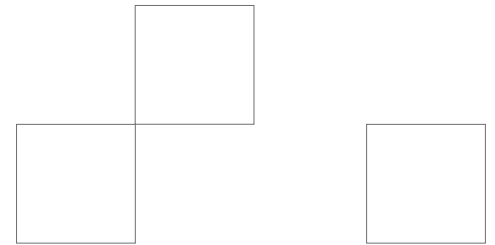


It has been a great year for Ryerson and we will continue to build on the momentum that has been generated to promote excellence and grow Scholarly, Research and Creative (SRC) activity. We must acknowledge the tremendous commitment and efforts of Ryerson's faculty members. Their ability, motivation and capacity will ensure a continued capitalization on our strengths. Our talented and diverse staff members have supported and encouraged faculty to reach their potential. The Office of the Vice President of Research and Innovation (OVPRI) will continue to seek input and implement improvements to the services that we provide.

Our students have demonstrated enthusiasm, ingenuity, and an entrepreneurial spirit in their collaborations with faculty and their involvement in SRC activity. Experiential learning across all disciplines is benefiting the entire institution, and fuelling SRC activity.

We are particularly grateful to the myriad of volunteers, both from within Ryerson as well as from our community partners, who contribute their expertise, time and experience to serve on our Boards and Committees, to mentor junior faculty and students and to facilitate and further advance the research enterprise.

We look forward to the next year with great enthusiasm.



# Scholarly, Research and Creative Activity Advisory Committee

# Members of the SRC Activity Advisory Board



**Wendy Cukier**

Vice-President, Research and Innovation

**Jean-Paul Boudreau**

Dean, Faculty of Arts

**Charles Davis**

Associate Dean (SRC), Faculty of Communication & Design

**Murtaza Haider**

Associate Dean (Academic), Ted Rogers School of Management

**Sri Krishnan**

Associate Dean, Faculty of Engineering, Architecture and Science

**Madeleine Lefebvre**

Chief Librarian

**Jennifer Mactavish**

Dean, Yeates School of Graduate Studies

**Janice Waddell**

Associate Dean, Faculty of Community Services

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## Terms of Reference

- The SRC Activity Advisory Committee shall be representative of the research enterprise across Ryerson.
- Appointments are made by the Vice-President, Research and Innovation, and include the Associate Deans of all faculties. The Committee is advisory to the OVPRI.
- The Committee will be the leading venue for discussion, advice and guidance of the strategic research issues and directions of the university.
- The Committee will address all aspects of the research enterprise across Ryerson, including basic and applied research, knowledge translation, commercialization and industry.
- The Committee will advise on the use of effective performance indicators that describe and reflect the diversity of Ryerson and its research breadth.
- The Committee will strike subcommittees, task forces and specialty groups of various types, from time to time, to facilitate the implementation of its activities.

# Ryerson would like to sincerely thank its 2010-2011 Scholarly, Research and Creative Activity Partners

3D Bold  
Aboriginal Affairs and Northern Development Canada  
AeroAstro Japan Co. Ltd.  
Alcohol Countermeasure Systems (ACS)  
Altera Toronto Technology Centre  
Alvery Bartlett Brokerage Co.  
AMD Canada  
American Chemical Society  
American Concrete Institute  
Amos Kedmey  
Analysis & Research in Communication  
Angstrom Power Incorporated  
Applied Precision  
Aramco Services Company  
Artenga Inc.  
Assembly of First Nations  
Atmosphere Industry Community Games  
Atomic Energy of Canada Ltd. (AECL)  
Autodesk Inc.  
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Bentail JP  
Bioshield Technologies Canada Limited  
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Canada Foundation for Innovation  
Canada Research Chair  
Canadian Academic Accounting Association  
Canadian Association of Radiation Oncology  
Canadian Broadcasting Corporation  
Canadian Construction Association  
Canadian Institute of Steel Construction  
Canadian Institutes of Health Research  
Canadian Journal of Philosophy  
Canadian Media Research Consortium  
Canadian Purchasing Research Foundation  
Canadian Space Agency  
Canadian Wollastonite  
Celestica International Inc.  
Cement Association of Canada  
Centre for Outsourcing Research & Education (CORE)  
CGI Inc.  
Chevron Canada Resources  
Chevron Energy Technology Company (ETC)  
Christie Digital Systems Canada, Inc.  
CIO Association Ontario Chapter  
Clearsphere Inc.  
Cloud Dynamics Inc.  
ColourManagement.ca  
Consortium de Recherche et d'Innovation  
en Aérospatiale au Québec  
Corus Entertainment  
CriSys Limited  
Danone Institute of Canada  
Deloitte Consulting  
Delvinia  
Denison's Brewing Co.  
Diamond and Schmitt Architects Inc.  
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Digivisual Technologies Inc.

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Found Aircraft Canada  
Fuji Film Canada Inc.  
GAO RFID Inc.  
Gay Lea Dairy Cooperative  
GCI Canada  
Genome Prairie  
Georgia Pacific Corporation  
GlaxoSmithKline Inc.  
Glenbarra Energy Management Corporation (GEMCO)  
Goodrich  
GreenOwl Solutions Inc.  
Groundheat International Inc.  
Healthwood Homes  
Heart & Stroke Foundation of Ontario  
Honeywell ASCa Inc.  
Hospital for Sick Children  
Human Resources and Skills Development Canada  
Husky Injections Molding Systems Ltd.  
Hydro One Inc.  
Hydro Quebec  
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Innisfil Hydro Distribution Systems Ltd.  
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ON – Ministry of Transportation  
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