



Today's Ideas Tomorrow's Innovators

A L B E R T A
GRADUATE
C O N F E R E N C E

May 5 -7, 2011 ,
MacEwan Hall, University of Calgary, Calgary, Alberta



Freedom To Create. Spirit To Achieve.



Graduate Students' Association
University of Alberta



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Innovation Art Exhibit

Julie Boyd, Curator

Alma Visscher, Assistant Curator



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- Denise Ferris, Chair
- Jennifer Zwicker, Communications
- James Lange, VP Finance
- Jeanne Xie, Member Relations
- Christopher Skappak, Government Relation Advisor

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<http://www.albertagrads.ca>

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Welcome Address

Dear Colleagues,



Artist depiction, actual representation may vary

On behalf of the Alberta Graduate Council, welcome to the **Alberta Graduate Conference – *Today's Ideas, Tomorrow's Innovators***, the first ever province wide multidisciplinary graduate student conference.

The Alberta Graduate Conference is a collaborative effort between the Alberta Graduate Council, the Alberta Ministry of Advanced Education, the Graduate Students' Associations of the University of Alberta, University of Calgary, University of Lethbridge and Athabasca University. We started out with the questions "What can I do with my degree" and "What can I do with my research" and designed the conference program in a way that would bring communities together to help you explore the potentials of your education and discover new opportunities.

We have framed the sessions around three main categories: 1) Challenges and Solutions, 2) Professional Development, and 3) Personal Narratives. The panels discussions and academic research presentation will give you a sense of the trends and challenges that affects the global markets and the solutions that are currently being developed in Alberta to help you identify future opportunities to pursue. Then through the various professional development workshops, you will refine your soft skills to enhance your emotional intelligence and be acquainted with the various service providers in the province, which will supplement your technical knowledge and broaden your awareness of the resources available to you. Finally, through the personal narratives of invited speakers in our "career explorer" series, you will learn how leaders in various sectors of the economies went from their early student days to innovators in their field so you may take the lessons they have learned and apply it to your own entrepreneurial ventures.

I would like to take this opportunity to sincerely thank our sponsors and speakers for their donations of money and time to help make this event a living breathing reality. We have raised just over \$134,000 with over 50+ confirmed speakers in attendance this year. Their generous contributions to the finances and programming not only show their support for our efforts, but that we are part of a much larger community. Of course, this event would not be possible without the countless number of volunteers to help plan and run the conference. I thank you all for your time and enthusiasm.

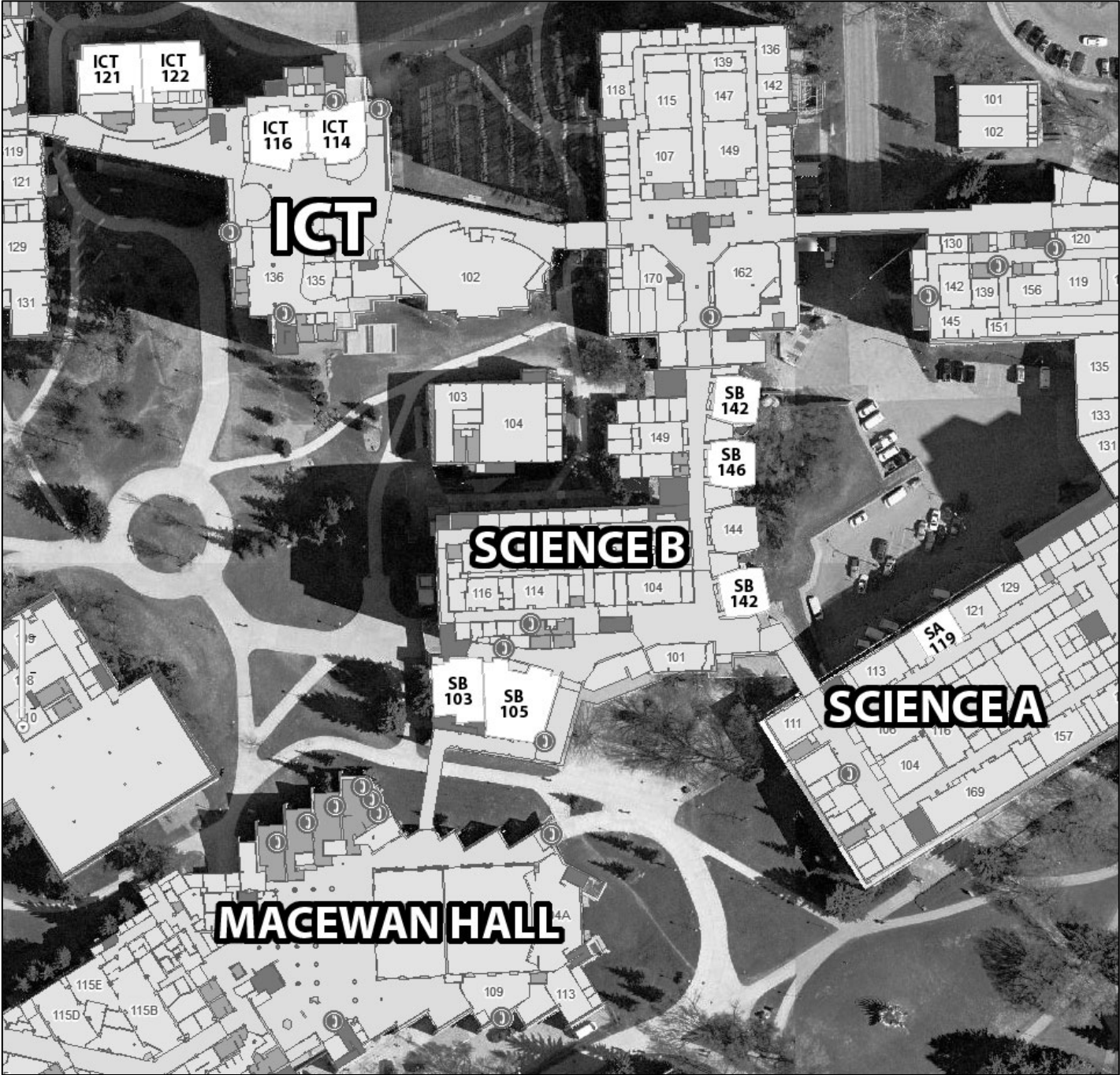
Finally, I would like to thank you for coming and be a part of this exciting event. We hope you will take the information gained from this conference and actively translate your skills and research into something that we can all benefit in our every day lives. Your ideas today could very well turn you into tomorrow's innovators. Let's all take part in fostering the growth of Alberta's knowledge-based economy.

Sincerely,

Charlie Hsu
AGC Conference Director

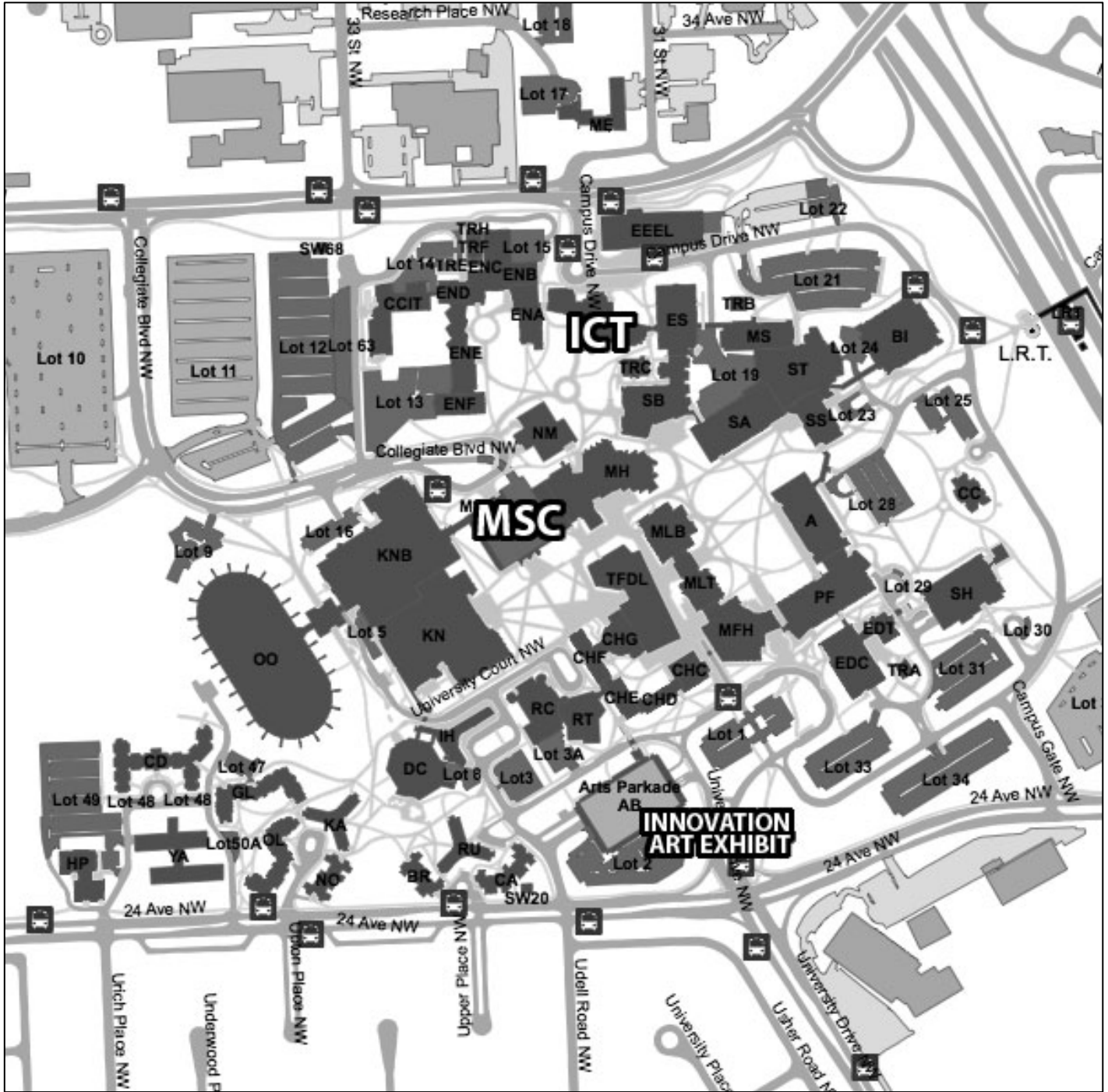
Venue and Maps

Session Rooms Locations



When in doubt, follow the crowd.

Innovation – Technics of Mind-Body Performance Art Exhibit Location



Schedule-at-a-Glance

May 5, 2011

0800	Breakfast and Registration MacEwan Hall					
0900	ICT 114	ICT 122	SB 146	SB 142	SB 148	ICT 116
	PD WORKSHOP	PANEL	ORAL	ORAL	ORAL	PD WORKSHOP
	Communicating Your Research Karen Thomas AIHS	Research and Knowledge Transfer Claudette Cloutier	Community Development #150 #122 #197 #201	Sustainable Design #238 #206 #103 #110	Social Sciences I #231 #242 #269	Resume and CV CAPS: UofA
1000	Coffee break MacEwan Hall					
1030	ICT 114	ICT 122	SB 146	SB 142	SB 148	ICT 116
	INFO	WORKSHOP	ORAL	ORAL	ORAL	PD WORKSHOP
	NSERC Programs and Funding Opportunities	Knowledge Translation 101 Daniel Grigat, AIHS KT initiative	Human Geography #17 #351 #298 #173	System Management #90 #263 #279 #363	Social Sciences II #319 #333 #393	Ace Your Interview CAPS: UofA Michael Bodnar
1130	Networking Luncheon MacEwan Hall A&B					
1300	ICT 114	ICT 122	ICT 116	SB 146	SB 142	SB 148
	WORKSHOP	SEMINAR	SERMINAR	ORAL	ORAL	ORAL
	Supplement Your IQ with EQ: New Ticket to Career Success	The Truth About Success: What Only an Entrepreneur Can Teach You Clayton and Elizabeth Lesoway	Patents, Trademark and Licenses –Intro to intellectual property. Simon Foxcroft	Diagnostic Medicine #37 #149 #245 #374	ICT/System Network #82 #98 #208 #262	Healthcare Community I #268 #284 #347 #324
1400	Zenobia Ali Derrick Rancourt	ICT 122	ICT 116	SB 146	SB 142	SB 148
		SEMINAR	ORAL	ORAL	ORAL	ORAL
		Importance of Web Presence Mediashaker Inc Shannon Routley	Nanotechnology #81 #252 #116 #69	Stroke and Neuro-disease #8 #163 #169 #419	ICT/Online Networks #26 #73 #271 #417	Healthcare Community II #112 #123 #212 #232
1600	Alberta Graduate Conference Opening Ceremony Downtown Campus, University of Calgary Annette Trimbee, Deputy Minister, Ministry of Advanced Education Naheed Nenshi, Mayor, City of Calgary Light Reception					
2030	Evening Social Last Defense Lounge Live DJ Music					

May 6, 2011

0800	Breakfast and Registration MacEwan Hall							
0900	ICT 116 SEMINAR Clean Energy Revolution Elizabeth Huculak	ICT 121 SEMINAR Technology Trends and Opportunities of the Future Ken Brownlee	ICT 122 SEMINAR The Boiling Frog Dilemma Todd Hirsch,	ICT 114 SEMINAR Career Explorer Shannon Routley	SB 142 SEMINAR Centre For Drug Research Development Kaley Wilson	SB 146 ORAL Oilsands/management #46 #247 #318 #428	SB 148 ORAL Molecular Medicine #22 #254 #162 #89	ICT FOYER WORKSHOP Resume/CV Rapid Review (bring your resume)
1000	Coffee break MacEwan Hall							
1030	ICT 121 SEMINAR <u>10:30</u> Perception of Promise Sean Caulfield	SB 146 ORAL CO2 storage #6 #47 #36 #322 #385 #345	ICT 122 SEMINAR <u>10:30</u> The Formation, Growth and Acquisition of Dynastream Ken Fyfe <u>11:15</u> Role of Fear in a Career Perry Kinkaide	ICT 114 SEMINAR Transforming Technologies into business opportunities TEC Edmonton CTI	ICT 116 SEMINAR From Benchside to Bed Side Robert Burrell	SB 142 ORAL Oilsands Upgrading #10 #16 #255 #371 #397	SB 148 ORAL Sustainable Energy #99 #130 #235 #390 #55 #56	
1200	Networking Luncheon MacEwan Hall A&B							
1330	ICT 122 PANEL New Architecture of the Alberta Innovation System Panel: Ron Dyck (AET), Gary Albach (AITF) Eddy Issac (AIEE), Stan Blade (AI BIO) Pamela Valentine (AIHS)		ICT 116 SEMINAR Isotechnika Randy Yatscoff Pitfalls to Avoid in Starting a Company CTI		SB 146 ORAL Gender and Society #11 #63 #179 #188	SB 142 ORAL Art, Literature and Music #18 #140 #118 #161 #164	SB 148 ORAL Education #137 #117 #189 #330 #221	
1500	Coffee break MacEwan Hall							
1530	ICT 121 PANEL Entrepreneur ICT Panel James Hildebrandt Lucas Metiuk Timothy Griffin Trevor Doerksen Kevin Swan Michael J. Sikorsky	ICT 114 SEMINAR Alberta Enterprise Corporation President, Rod Charko, ORAL <u>16:00</u> Electronics #239 #367 #329 #352	ICT 122 PANEL Energy and Environment Solutions (panel) AB Chamber of Resource Suncor Energy PTACS AI EE	ICT 116 SEMINAR Tech without Relationships = \$Zero. Perry Kinkaid ABCampus of Technology Chris Lerohl Ryan Sanders	SB 148 ORAL Agriculture and Life Sciences #79 #215 #159 #223 #290 #327	SB 142 ORAL International Relation and Business Policy #75 #115 #124 #133 #273 #288	SB 146 ORAL Infectious Diseases I #253 #336 #373 #377 #403	
1700	Networking Reception Poster Presentation (Poster presentation for abstracts with ODD numbers) MacEwan Ballroom							
1900	Innovation – Technics of Mind-Body Performance Little Gallery, 6 th floor, Art Parkade							

May 7, 2011

0800 **Breakfast and Registration**
MacEwan Hall

0900	SB 142	ICT 116	SA 119	ICT 116	SB 148	ICT 114
	ORAL	ORAL	ORAL	ORAL	ORAL	ORAL
	Infectious Diseases #144 #148 #178 #222	Communication Network #14 #408 #404 #415	Rehabilitation Medicine #127 #131 #132 #387	Cancer #44 #50 #227 #346	Inflammatory Diseases #40 #236 #244 #305	Environment Impact Assessment #41 #357 #364 #114

1000 **Coffee break**
MacEwan Hall

1030	ICT 122	ICT 114	SB 142	SB 148	SB 105	ICT 116
	PANEL	ORAL	ORAL	ORAL	ORAL	ORAL
	Career Roundtable Fix the PhD Matt Rawluk Perry Kinkaide Randy Goebel	System Network #207 #280 #307 #389	Food Agriculture #24 #157 #194 #398	Health Information System #143 #147 #260 #282	Physiology #274 #289 #405 #225	Construction Management #51 #74 #220 #424

1130 **Networking Luncheon**
MacEwan Hall A&B

1300 **COLD-FX®: A "Blue Ocean" Strategy**
Dr. Jacqueline Shan
CSO, ColdFX Afexa
MacEwan Hall A&B

1400 **Networking Poster Session**
(Poster presentation for abstracts with EVEN numbers)
MacEwan Ballroom,
Coffee served at 2:30pm

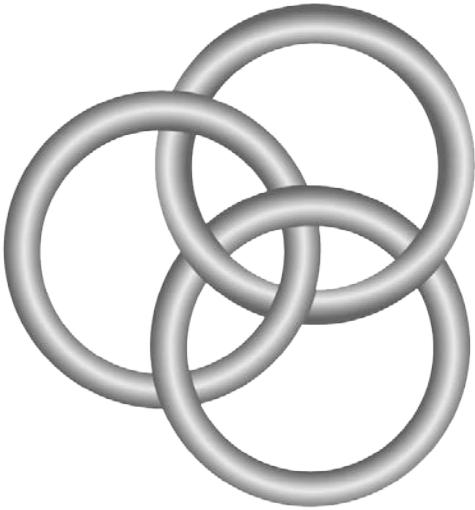
1600 **Plenary Session: Best Oral Abstracts Presentations**
SB 103
Awards and Announcement to follow

1800 **Darwin's Sexy Science**
Keynote – Jay Ingram
(Daily Planet, Discovery Channel)
Live Band Performance
MacEwan Hall A&B

1900 **Closing Night Dinner Gala**
MacEwan Hall A&B

Sponsors

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IT HAPPENS HERE.*

Companies and researchers around the world agree that Alberta Innovates offers unique advantages compared to other research and innovation jurisdictions. It's a system that helps make innovation happen sooner rather than later.

Alberta Innovates helps post-secondary institutions, businesses and government share resources, experts and ideas. Beyond this collaboration, Alberta Innovates also provides access to one-of-a-kind resources through one point of contact. Researchers and businesses can find researchers who are top in their field, infrastructure that can save millions of dollars and years of development, and a combination of natural resources that simply cannot be found anywhere else on the planet.

Although Alberta Innovates is a new system, it is backed by decades of proven success and a strong legacy of pioneering discoveries that have been recognized around the world. Furthermore, it is backed by a long-term view towards investment with billions of dollars committed through endowment funds.

Alberta has attracted some of the world's largest and most successful corporations and researchers, such as **General Electric, Johnson & Johnson, 3M, Bose, Dow Agro, Hitachi, HP, IBM, RIM, Roche, Viterra, Xerox** and the **Li Ka Shing Foundation**.

With Alberta Innovates, you're one connection away from bringing your life's work to the world. For more information, visit albertainnovates.ca.



■ On behalf of the Alberta Innovates system, Alberta Innovates – Health Solutions, a member of the Health Research Internship Consortium[†], is partnering with MITACS to deliver the MITACS-Accelerate internship program in Alberta. This program provides private sector companies with matching funds to engage a health research graduate student or post-doctoral fellow for one or two four-month terms to help solve research challenges.

Benefits to health researchers

- Develop valuable professional relationships with private-sector organizations.
- Take advantage of a unique training opportunity and increased funding for graduate students and post-doctoral fellows.
- Ensure new health solutions are developed for business needs.
- Apply at any time – all approved proposals are funded, and internships can start at any time throughout the year.

How the program works

- The internship project is defined as a collaboration between the intern, faculty supervisor and the partner company; the intern prepares the application.
- Fifty percent of the intern's time is spent on site at the partner company, with the remaining 50 percent at the host university, further advancing the research under the guidance of a faculty supervisor.
- The company's contribution of \$7,500 per four-month internship is matched by MITACS, resulting in a \$15,000 research grant.
- The intern receives a minimum \$10,000 stipend for the four-month internship. The remaining \$5,000 is eligible to cover research materials and supplies associated with the project.
- Master's, PhD and post-doctoral interns are eligible for two four-month internships per lifetime.

For more information, contact: **Pamela Valentine, Ph.D**
Vice-President, Programs
Alberta Innovates – Health Solutions

pamela.valentine@albertainnovates.ca
780.423.5727

[†] The Health Research Internship Consortium (HRIC) includes: The Michael Smith Foundation for Health Research, Alberta Innovates Health Solutions, Fonds de la recherche en santé Québec, the Manitoba Health Research Council, and the Prince Edward Island BioAlliance.

MITACS-Accelerate gratefully acknowledges the support of the following partners:



Government of Canada
Networks of Centres
of Excellence

Gouvernement du Canada
Réseaux de centres
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Through the Industrial R&D Internship Program



WONDERING WHAT TO DO NEXT?

Natural Sciences and Engineering Research Council of Canada
funding can help you take the next step in your career



Postgraduate Scholarships

\$17,300 for one year of master's studies / \$21,000 per year for up to three years of doctoral studies

Alexander Graham Bell Canada Graduate Scholarships

\$17,500 for one year of master's studies / \$35,000 per year for up to three years of doctoral studies

Vanier Canada Graduate Scholarships

\$50,000 per year for three years of doctoral studies

Industrial Postgraduate Scholarships

At least \$21,000 per year for up to three years

Summer programs in Japan or Taiwan

At least \$2,500 plus travel and living expenses

Postdoctoral Fellowships

\$40,000 per year for two years

Banting Postdoctoral Fellowships

\$70,000 per year for two years

Industrial R&D Fellowships

\$30,000 per year for two years plus a minimum contribution of \$10,000 per year from the host organization

Industrial Research and Development Internships

\$10,000 for graduate or postdoctoral four-month internship plus \$5,000 for research-related costs



www.nserc-crsng.gc.ca

QUE FAIRE MAINTENANT?

Le Conseil de recherches en sciences naturelles et en génie du Canada peut vous aider à entreprendre la prochaine étape de votre carrière en vous accordant une aide financière.



Bourses d'études supérieures du CRSNG

17 300 \$ pour un an au niveau de la maîtrise / 21 000 \$ par année pour deux ou trois ans au niveau du doctorat

Bourses d'études supérieures du Canada Alexander-Graham-Bell

17 500 \$ pour un an au niveau de la maîtrise / 35 000 \$ par année pour deux ou trois ans au niveau du doctorat

Bourses d'études supérieures du Canada Vanier

50 000 \$ par année pour trois ans au niveau du doctorat

Bourses d'études supérieures à incidence industrielle

Au moins 21 000 \$ par année pendant au plus trois ans

Stages d'été au Japon ou à Taïwan

Au moins 2 500 \$ en plus des frais de déplacement et de subsistance

Bourses postdoctorales

40 000 \$ par année pour deux ans

Bourses postdoctorales Banting

70 000 \$ par année pour deux ans

Bourses postdoctorales de R et D industrielle

30 000 \$ par année pour deux ans, plus la contribution de l'organisme d'accueil d'au moins 10 000 \$ par année

Stages en recherche et développement industrielle

10 000 \$ pour un stage de quatre mois s'adressant aux étudiants des cycles supérieurs et aux stagiaires postdoctoraux, en plus de 5 000 \$ à l'appui des coûts de la recherche



www.nserc-crsng.gc.ca

Detailed Program Schedule

Thursday, May 5

WORKSHOP

Communicating Your Research

Karen Thomas, Media Specialist, Alberta Innovates - Health Solutions

9:00 – 10:00

ICT 114

This session will focus on how to describe your research or project in a concise, compelling format. Participants are welcome to bring along a one-page summary of their work for feedback and brainstorming. Topics for discussion include: challenges you face in crafting a cocktail party synopsis, common pitfalls to avoid in the telling of technical stories, getting to the essence of your work, how to tailor your message for various audiences, using powerful metaphors and the active voice, and, why do I need a cocktail party version of my work anyway? We will roll up our sleeves in this session and have some fun.

PANEL

The Role of Academic Libraries in Knowledge Transfer

Claudette Cloutier, Director, Science and Engineering in Libraries and Cultural Resources (LCR),

University of Calgary

9:00 – 10:00

ICT 122

The role of academic libraries in the research process is changing in this ever-increasing digital environment. Libraries play a variety of roles in the lives of researchers that facilitate the transformation of today's ideas into tomorrow's innovations. A panel of interdisciplinary researchers will discuss how libraries as space, as research partner, as discovery tool, and as advocate enhance their scholarship, improve their outreach and increase collaborations.

Moderator - Claudette Cloutier,

Director Science and Engineering, Libraries and Cultural Resources

Panel Speakers:

Helen Clarke

Associate Vice Provost Collections, Libraries and Cultural Resources

Dr. Mary Polito

Associate Professor, Department of English

Rosmin Esmail

Director, Clinical Epidemiology, Health Technology

Assessment and Innovation, Alberta Health Services

Dr. Stephen Hubbard

Assistant Professor, Department of Geoscience

WORKSHOP

Resumes for Advanced Degree Holders

Michael Bodnar, CAPS: Your UofA Career Centre

ICT 116

Applying for work outside academia? Learn techniques to make a positive first impression by targeting your resume to your intended audience. Discover when to use a resume, the differences between a resume and a curriculum vitae (CV), how to transform a CV into a resume, resume and cover letter essentials, and overall presentation tips for creating high-impact resumes.

Acing a Job Interview

9:00 – 10:00

Learn about the interview process from start to finish. Find out what employers look for in candidates, what kinds of questions they will ask and what you can do to prepare.

Rapid Resume Review

10:30 – 11:30

Did you know most employers will spend a very short amount of time looking at your application? Will your work search tools get attention? Drop by for a 10-minute review with your resume to determine the changes that you should make to your current resume.

ORAL ABSTRACTS

Social Sciences

9:00 – 10:00

SB 148

231. Rethinking Immigrant Youth

Minha R. Ha

242. FAQ's for midwives: an ancient approach
Lesley Bolton

269. Corpora: A New Tool in Language Pedagogy
Sarvenaz Hatami

Community Development

9:00 – 10:00
SB 146

150. Residential School Settlement Monies and the Revitalization of Yukon First Nations"
Spencer Edelman

122. Engaging Men in Gender Justice: Overcoming Barriers to Girls' Education in the Pashtun Tribes of Afghanistan and Northern Pakistan
Aamir Jamal

197. Women and Work, Women and Weaving: Exploring the legitimacy of the Fair Trade handicraft industry in Nepal through producers perceptions of work
Sarah Rich-Zendel

201. Employment over Generations: Canadian Immigrants and Their Offspring Employed in Trades and Clerical Work
Parvinder Hira-Friesen

Sustainable Design

9:00 – 10:00
SB 142

238. Suitability and Sustainability: Improving Frameworks for Aboriginal Housing in Canada
Johann Kyser

206. The Sociological Implications of Building Up: An Exploratory Analysis of the Trend to Increasing Density
Anne Huizinga

103. Citizen Participation in Sustainable Community Planning: The Story of Alberta
Kate G. van Fraassen

110. Measuring the Sustainability of Urban Communities in Calgary, Alberta
Nesreen Weshah And Farnaz Sadeghpour

BREAK

Networking Coffee Break

MacEwan Hall
10:00 – 10:30

INFORMATION SESSION

NSERC Programs and Funding Opportunities

Lisa Marquardson, Research Partnerships Promotion Officer | Prairies Regional Office | Natural Sciences and Engineering Research Council of Canada
10:30 – 11:30
ICT 114

ORAL ABSTRACTS

Social Sciences II

10:30 – 11:30
SB148

319. Multi-Element Analyses of Sediments on a Taltheilei Hunter-Gatherer Site in the Canadian Subarctic
Don Butler

333. The Colonial Image and Phantasms of Death: A Study of Malek Alloula's "The Colonial Harem" and Gertrude Bell's "The Desert and the Sown"
Sheba Rahim

393. Sustainable Culture Development Community
Linlin Liu

Human Geography

10:30 – 11:30
SB 146

17. Ride for the Brand: The Communication of Identity in Cultural Performance
Jennifer B. Rondeau

351. The human geography of free roaming horses in Alberta
Adela Tesarek Kincaid

173. Lead from spent ammunition: a source of poisoning in bald eagles
Luis Cruz-Martinez, Patrick Redig

298. Detecting Fraudulent Activities In Land And Property Transactions
Thaer Shunnar, Michael Barry

System Management

10:30 – 11:30
SB 142

90. Reducing costs and carbon emissions of large science and engineering computer systems
David Aikema, Cameron Kiddle, and Rob Simmonds

263. Probe-Based Proactive Ramp Metering on Deerfoot Trail
Saeid Saidi, Lina Kattan

279. An Innovative nature-inspired Framework for Electricity Demand Management and a Graphic Visualization of the Results
Bahareh Fathi

363. A 3-D gas model for sanitary landfills equipped with a gas extraction system.
Chien-Kai Wang, Gopal Achari

SEMINAR

Knowledge Translation in Health Research

Daniel Grigat, Project Coordinator, Knowledge Translation Initiatives, Alberta Innovates – Health Solutions
10:30 – 11:30
ICT 122

What is Knowledge Translation (KT)

- Why KT is important to health
- The role of KT in a changing provincial, federal, and international funding environment
- The Knowledge to Action Cycle
- KT: A Case Study
- Canadian resources for KT
- AIHS – Knowledge Transfer Initiatives
- Q&A

LUNCH

Network Luncheon

11:30 – 13:00
MacEwan Hall A & B

WORKSHOP

Supplement Your IQ with EQ: New Ticket to Career Success

Zenobia Ali,
Adjunct Assistant Professor, University of Calgary
Derrick Rancourt,
Associate Professor, University of Calgary
13:00 – 15:00
ICT 114

With the collapse of conventional industrial working models, your future success will depend on your unique skill set. In order to get the job of your dreams, you have to possess a combination of hard and soft skills. Hard skills are your technical know-how: the factual knowledge required for the job. These skills come from the academic training you are currently obtaining in your program. Soft skills are your interpersonal skills and include your ability to communicate with others, your ability to work within a team, your work ethic, your optimism and your ability to lead. These skills are the ones that you will be using more than your technical ones, as you climb the corporate ladder. Soothsayers suggest that we are moving into an artisan stage, where your success will be measured by what unique products, including ideas, you can generate for your organization. With globalization, there are a lot of brilliant people to compete with. However, brilliance and technical skills will not be enough. You will need to sell your ideas to others in order to successfully compete inside and outside your organization. Developing your entrepreneurship skills will be critical to your success in the new economy. In this session, you will be self-evaluating your skills in order to generate an inventory which will assist you in your career goals. You may be surprised with the results of the self-assessment as you realize that you have more skills than you originally thought.

SEMINAR

The Truth About Success: What Only an Entrepreneur Can Teach You Company

Clayton & Elizabeth Lesoway - FutureNow Franchises
13:00 – 14:00
ICT 122

Clayton Lesoway is a 27 year old entrepreneur, born and raised in Edmonton, AB. In only two and a half years, Clayton and his wife Elizabeth have built a company teaching people to live a debt-free life, and create

financial independence for the future. Clayton has worked for the past 4 years as a full-time City of Edmonton Fire Fighter, proving that having a passion for your career is no excuse to ignore the importance of person & financial success. Passionate about mentorship, helping families get debt-free, and teaching people to own their own business, Clayton & Elizabeth have been invited to speak all over North America, sharing their success story with tens of thousands of people.

SEMINAR

Patents, Trademarks and Licenses - Introduction to Intellectual Properties

Simon Foxcroft, Bennett Jones.

13:00 – 14:00

ICT 116

What are IP? What are the different types of IP, what ownership rights do you have as a researcher? Simon Foxcroft will go through the basics of IP, how each type of legal entity is being practices in commercialization of technology.

ORAL ABSTRACTS

Diagnostic Medicine

13:00 – 14:00

SB 146

37. Simulation-based validation and improvement of pacing techniques for cardiac arrhythmia treatment
Patrick M. Boyle, George D. Veenhuyzen, and Edward J. Vigmond

149. A New Way to Identify Diseases that Cause High Blood Pressure in the Lungs
Chris Bouwmeester, Dr. Nigel G. Shrive and Dr. John V. Tyberg

245. Using cardiac MRI to non-invasively detect coronary artery disease.
Judy Luu, Jodi Hunt, James Hare, and Matthias Friedrich

374. Increased Incidence of Cardiac Scar Tissue in Elite High-Endurance Athletes: A Cardiovascular Magnetic Resonance Study
Myra S Cocker; Oliver Strohm¹; David J Smith; Craig Butler; Israel Belenkie; Willem Meeuwisse⁴; Matthias G Friedrich

Healthcare Community I

13:00-14:00

SB 148

268. Accessibility to primary health care for Aboriginal reserves in Alberta

Olesya Elikan

284. Cardiovascular Disease in Inner-City Calgary Regions: A Geographical Approach

Fox Underwood, Stefania Bertazon

347. Evaluation of the Personal Wellness Workshop Series at the University of Calgary

Ashley Bishop, Lucy Amadala, Gloria Crowe

324. The association between cardiac rehabilitation and outcomes in patients with coronary artery disease: focus on women and the elderly

Martin BJ, Hauer T, Lewin AM, Galbraith D, Ghali WA, Knudtson ML, Arena R, Stone JA, Aggarwal S

ICT/System Networks

13:00 – 14:00

SB 142

82. DEC: Service Demand Estimations with confidence
Amir Kalbasi, Diwakar Krishnamurthy, Jerry Rolia, and Stephen Dawson

98. Secret Key Establishment using Communication Sources and Channels
Hadi Ahmadi and Reihaneh Safavi-Naini

208. Engineering, scientific inquiry and emerging technologies
Ashley Mercer & David Keith

262. Application of Fuzzy Logic and Fuzzy Control in Designing Intelligent Traffic Lights to Optimize the Traffic Flow
Mohamad Esmaily-Radvar

SEMINAR

The importance of Web Presence

Shannon Routley, Vice Presidence, Mediashaker Inc.

14:00 – 15:00

ICT 122

A brief introduction on Mediashaker, its technology and the types of services we do for our clients, the importance website as a visual cue to the maturity level of your business or organization. Viewers create a value judgment based on your website and whether it is worth their investment (time or money). Some examples will be discussed using existing clients sites as well as others to demonstrate this. A website is not a post card, it is a valuable aspect of your businesses communication. Routley will explore what kind of marketing efforts will help your site continue to grow, and ensure that it is optimized for search engines. Simply put, you can have a great looking site, but if it isn't visited, it is of little value.

Static vs Dynamic

Websites have changed, from static HTML pages that rarely changed, to dynamic webpages driven through Content Management Systems. Routley will touch on some popular CMS tools and how they are changing the landscape.

What to Look for in Hiring a Web Developer

Considerations towards 1) Pricing 2) Hosting 3) Service and Quality 4) Timeframes and Delivery 5) Intellectual Property

ORAL ABSTRACTS

ICT/Online Networks

14:00 – 15:00

SB 142

26. Data Mining of Online Discussion Threads

Dina Said and Nayer Wanas

73. Conference Key Distribution Schemes

Fatemeh Arbab

271. Cheaper Software for a Greener Future

Yaser Ghanam

417. Stock Investment Decision Making: A Social Network Approach

Negar Koochakzadeh, **Fatemeh Keshavarz**, Atieh Sarraf, Reda Alhajj

Healthcare Community II

14:00 – 15:00

SB 148

112. Exploring RTLS in Healthcare

Shikha Nayyar, Marina Gavrilova

123. Exploring research engagement among autism stakeholders in Alberta.

Jivraj, J. Nicholas D., Zwaigenbaum, L.

232. "I choose the fat women": Barriers to the acceptance of Human Immunodeficiency Virus (HIV) Voluntary Testing and Counselling.

Opoku A. Asenso

212. The Global Use and Development of Psychosurgery, 1935-1960

Brianne Collins

Nanotechnology

14:00 – 15:00

ICT 116

81. Nano-Barcodes

Kelly Goss

252. Nano-Mechanical Machining of Materials as An Alternative to Photolithography and Chemical Etching

M.G. Mostofa, C. Park, S.S. Park

116. Physical and Compositional characterization of metallic matrix nanocomposites materials

Michel Nzikou Mamboukou

69. Semiconductor/metal nanoscale patterning made simple by chemistry

J. R. Rodriguez, **Melanie Johnson**, J. G. C. Veinot

Stroke and Neurological Disorders

14:00 – 15:00

SB 146

8. High Body Temperature Worsens a Stroke

Shakib Rahman, Mustafa Alam, Askar Mohammad, Ashfaq Shuaib.

163. Evaluating the Role of Angiotensin II in Controlling Heart Rate Variability: Response to Angiotensin II Infusion in Healthy Humans

Mann MC, Exner DV, Hemmelgarn BR, Sola DY, Ahmed SB.

169. Declining Kidney Function Increases the Prevalence of Sleep Apnea and Nocturnal Hypoxia

David D. M. Nicholl, Sofia B. Ahmed, Andrea H. S. Loewen, Brenda R. Hemmelgarn, Darlene Y. Sola, Jamie M. Beecroft, Tanvir C. Turin, Patrick J. Hanly

419. Purinergic modulation of central inspiratory networks: the interaction between ATP and adenosine
Zwicker JD, Hahn LB, Posse de Chaves E, Funk GD

CEREMONY

Alberta Graduate Conference Opening Ceremony

Annette Trimbee, Deputy Minister, Ministry of Advanced Education

Naheed Nenshi, Mayor, City of Calgary

16:00 – 18:00

Downtown Campus, University of Calgary

MC: Christopher Skappak and James Lange

The opening ceremony of the first ever Alberta Graduate Conference will take place in the brand new downtown campus of the University of Calgary. Following keynote speech by honorary guests, Dr. Annette Trimbee and Mayor Nenshi, there will be a light reception. This session is open to public.

SOCIAL EVENTS

Evening Social for Conference Delegates

Last Defense Lounge, MacEwan Student Centre

18:00 – close

The GSA is offering 25% discount on all drinks for conference delegates at the *Last Defense Lounge*, a restaurant bar operated by the Graduate Students' Association of University of Calgary. Please remember to drink responsibly, and show up for the sessions the next morning.

Friday, May 6

SEMINAR

Clean Energy Revolution

Elizabeth Huculak, Vice President, WADE Canada

9:00 – 10:00

ICT 116

There is an emerging revolution in world energy markets as energy security and climate change concerns drive countries to diversify energy strategies. Worldwide, the economic and environmental benefits of investment in energy efficiency and conservation, commercialization of emerging clean and renewable technologies, and cleaner hydrocarbons. The application and integration of these emerging energy solutions in mainstream commercial, industrial and residential development is a growing opportunity for Canada and Alberta as a world energy leader. The opportunity for new business and jobs is extensive. Learn more about how you can be part of the Clean Energy Revolution.

SEMINAR

Impact of technology in the workplace

Ken Brownlee, Deloitte

9:00 – 10:00

ICT121

The talk will discuss what the impact of technology in the workplace mean, where things have come from, what skills are critical in adopting new technology and where things could go in the future.

SEMINAR

The Boiling Frog Dilemma: How Businesses are Ruining the Canadian Economy, and What We Can Do About It

Todd Hirsch, Senior Economist, ATB Financial

9:00 – 10:00

ICT 122

“Economically, Canada has been doing alright among its global competitors, but there is a sense somehow that we could be doing better. How can creativity, innovation, embracing failure, tackling risk, and becoming more cosmopolitan help Canada continue to prosper and thrive in the future? And what are some ways to get us there?”

Todd Hirsch is a Senior Economist where he provides economic information and intelligence to the various lines of business at ATB. He also tracks current developments in Alberta’s and North America’s economy and delivers presentations to both internal and external audiences.

Todd appears regularly as an economic commentator on CBC radio, various TV programs, and in the press. He also teaches two economics courses at the University of Calgary, acts as a mentor for the Economics Society of Calgary’s student mentorship program, and serves on the Board of Directors of the Calgary Arts Academy.

SEMINAR

Career Explorer with Shannon Routley Vice President, Mediashaker Inc.

9:00 – 10:00

ICT 114

Routley had a passion for being creative and working with others. In this session she will discuss the difficult times she encounter during her College and University years, and how her focus wasn't quite directed at this stage. She will talk about her earlier efforts in getting involved with various start up companies and ventures, her own preconceptions in joining start-ups, and the reward she got in experiences and skills as well as the friends and connections made.

Routley had overcome a number of unsuccessful ventures, she will provide a humorous account as well as somber realities of what had occurred, and what some of the early signs are to watch out for. She will discuss her view on business and relationships and what helped foster a change that is allowing her to grow personally and professionally. Most of this has to do with fostering constructive and positive frameworks, choosing your relationships, finding balance in life (ie. emotional and physical well-being). She will also discuss what her day to day looks like as well as those who she work with and share advice on determining what matters to us, and how we can achieve the balance and path to get us there.

SEMINAR

Centre for Drug Research and Development

Kaley Wilson, Manager, Business Development, CDRD
9:00 -10:00
SB 142

The Centre for Drug Research and Development (CDRD) is a public-private, non-profit organization focused on helping academic investigators to translate their discoveries into new therapeutics. CDRD provides access to the drug development expertise and infrastructure required to enable researchers to develop their promising technologies. CDRD is positioned to assist investigators in the areas of biologics, target validation, assay development and screening, medicinal and process chemistry, drug formulation, ADME, toxicology and in-vivo evaluation. With access to over 15,000 square feet of laboratories, CDRD is equipped with the latest technology spanning the preclinical drug discovery and development pathway and over 70 dedicated staff to help progress academic discoveries towards the clinic. CDRD, together with its commercial arm, CDRD Ventures Inc., is positioned to facilitate the advancement of academic discoveries to a point where the technology will become more attractive to licensing partners, or further investment.

ORAL ABSTRACTS

Oilsands Management

9:00 – 10:00
SB 146

46. Evaluating fabrics' thermal protection from low pressure hot water jets for workers in the oil and gas sectors

Shahid H Jalbani

247. Evaluation of the ORC and VPC for Low Grade Waste Heat Recovery in Alberta's Oil sands

Doris K. Weiss

318. Experimental Study of Hot Fluid Injection into Athabasca Oil Sand Reservoir

Rohallah Hashemi

428. Assessing the Impact of Seepage from an Oil Sands Tailings Pond: A Series of Laboratory Investigations

Holden, A., Mayer, K.U., Ulrich, A.C.

Molecular Medicine

9:00 – 10:00
SB 148

22. Malaria Parasites Induce Structural and Functional Changes in Human Microvascular Endothelial Cells

Shevaun P. Davis, Matthias Amrein, Mark R. Gillrie, Kristine Lee, Daniel A. Muruve, Kamala D. Patel and May Ho

254. Amorphous Silica Nanoparticles and Lung Epithelial Cells: Mechanisms of Interaction

Sara Tehranian, Ayodeji Jeje, Matthias Amrein

162. Selenium biofortification implications for mitigating chronic arsenic toxicity

Shweta Sah and Judit Smits

89. PI3-Kinase Gamma is Required for the Resolution of Acute Experimental Colitis

David Prescott, Bronwyn Atkinson, Derek McKay, Christopher Waterhouse.

BREAK

Networking Coffee Break

MacEwan Hall
10:00 – 10:30

SEMINAR

Perceptions of Promise:

Biotechnology, Society and Art

Sean Caulfield – Canada Research Chair in Printmaking and Professor in the Department of Art and Design, University of Alberta

10:30 – 11:15
ICT 121

Rapid advancements in biomedical research are challenging traditional ways we view our bodies and environment. Research into stem cells and genetics, for example, has brought the possibility of significant improvements in the health and welfare of Canadians; however, these innovations have also raised complex and difficult ethical, legal and social questions that society must face. Perceptions of Promise: Biotechnology, Society and Art is an exciting and innovative creative exhibition which brings together a group of internationally recognized artists and biomedical scholars/scientists in order to explore

questions surrounding biotechnology with a particular focus on stem cell research.

Topics explored by the scholars include articles on stem cell research, public perceptions of biotechnology, and parallels/differences between creative and scientific practices. Similarly, artist responded to the workshop by creating a wide range of works including pieces that utilize MRI technology in order to create haunting sculptural forms, to drawings that look to technical scientific language for inspiration.

Art has an important role to play in the discourse around biotechnology because it can offer unique articulations of the complex, polarized and often emotionally charged responses the public has towards technology. When engaging in this kind of critical dialogue, however, it is crucial that artists and the public are properly informed by the sophisticated and rich research occurring in the biomedical and scholarly world. Perceptions of Promise offers viewers a compelling glimpse into a unique collaboration between scientists, scholars and artists, in a visually engaging exhibition that will challenges viewers to consider the possibilities of biotechnology and stem cell research.

SEMINAR

Sources and Implication of hype in biomedical research

Timothy Caulfield - Canada Research Chair in Health Law and Policy; Professor, Faculty of Law and Faculty of Medicine & Dentistry; Research Director, Health Law Institute, University of Alberta; AHFMR Health Senior Scholar

11:15 – 12:00
ICT 121

Caulfield's research has focused on two general areas: biotechnology, ethics and the law; and the legal implications of health care reform in Canada. He has published well over 100 academic articles and book chapters and often writes for the popular press. He is the recipient of an Alberta Heritage Foundation for Medical Research Health Research Scholarship entitled "Regulating the 'Genetic Revolution,'" a Genome Canada project on the regulation of genomic technologies, is the theme leader for a recently awarded Stem Cell Network grant (National Centres of Excellence) and is the Principal Investigator for a CIHR grant exploring the legal issues associated with the control of infectious disease. He has

been a visiting scholar at the Hasting Center for Bioethics in New York, the University of Houston's Health Law and Policy Institute, and at Stanford University's Program in Genomics, Ethics and Society.

(adapted from <http://www.adi.med.ualberta.ca>)

SEMINAR

The Formation, Growth and Acquisition of Dynastream

Kenneth Fyfe, Project Manager, AHFMR Team Grant
10:30 – 11:15
ICT 122

Coaches, trainers and athletes have always recognized the need to quantify and analyse athletic endeavors to enhance performance. In some sports, the acquisition of performance metrics has been readily accomplished because it has been straightforward to instrument the equipment that the sports are performed with. For running, however, it has always been a challenge. Based on research performed at the University of Alberta in the department of Mechanical Engineering, Dynastream has designed and built a wide variety of sporting electronics that specialize in the running market. These products have enabled the real-time analysis of gait parameters that were previously only available on treadmills in dedicated gait labs. This presentation highlights the development of the original technology, the transition from a research prototype in an academic setting to the formation of a business to design and build high volume consumer products. Other points of interest include negotiating a deal with the University of Alberta, dealings with a patent troll and finally the many interesting step leading up the the acquisition of Dynastream by Garmin in 2006

SEMINAR

Career Explorer with Perry Kinkaide - The Role of Fear in A Career

Perry Kinkaide, President, Alberta Council of Technology
11:15 – 12:00
ICT 122

Dr. Kinkaide weaves a fascinating story of "the role of fear" in his varied career as a serial change agent. He may be ahead of his time having braved half a century of change and still at it. He has been recognized as recipient of the Queen's Jubilee Award, one of Alberta's 50 most influential leaders, President of

Kinkaide Enterprises with a portfolio of a dozen start-ups, founder and President of the Alberta Council of Technologies, Managing Director of KPMG Consulting, Director of Privatization and Funding Reform and ADM with the Alberta Government, with a PhD in Brain Research from the University of Alberta. Entertaining. Engaging and Insightful.

SEMINAR

Nanocrystalline Silver: From the Benchside to the Bedside – A Story About High Tech Health Care Commercialization in Alberta

Robert Burrell, Professor and Chair, Biomedical Engineering, University of Alberta | Chair in Nanostructured Biomaterials, Canadian Research Council
10:30 – 10:45
ICT 116

(adapted from astec.ab.ca)

Dr. Robert Burrell is considered by many among his peers to be a visionary. He saw the potential to apply nanotechnology to medicine and had the exceptional scientific skills to create a successful therapeutic product that saves lives and improves the quality of life for people worldwide. Dr. Burrell's discovery, **Acticoat™**, is the first therapeutic application of nanotechnology in the world. It has revolutionized wound care and saved the lives and limbs of thousands of patients.

Dr. Burrell developed the nanostructured silver Acticoat bandage with privately owned Westaim Biomedical of Fort Saskatchewan and the University of Alberta Faculty of Medicine and Dentistry. The dressings are used as an antimicrobial barrier over partial and full thickness wounds, including first and second degree burns, donor and recipient graft sites, pressure ulcers, venous ulcers and diabetic ulcers. Acticoat was instrumental in treating burn victims of the terrorist attack in Bali, Indonesia, and the Station Night Club fire in Rhode Island. In 2002 Dr. Burrell was in Australia on a speaking tour to introduce doctors to Acticoat when terrorists bombed a Bali nightclub, causing hundreds of deaths and burn injuries. This was literally a test by fire for Dr. Burrell's nanomedicine.

The dressing's long-acting properties reduce the frequency with which bandages on burn victims need to be changed – an extremely painful, disruptive process – from up to 10 times a day to as few as once every 3 to 7 days. Its unique properties also allow burn wounds to be

examined without the problems of external film formation and inflammation.

SEMINAR

Transforming Technologies into Business Opportunities

Dr. Randy Yatscoff, VP Business Development, TEC Edmonton, and
Calgary Technologies Inc.
10:30-12:00
ICT 114

TEC Edmonton is a unique non-for-profit enterprise that became a ratified joint venture in 2006 between Edmonton Economic Development Corporation and the University of Alberta. It helps navigate the commercialization process - transitioning science solutions into business opportunities. As an entrepreneur who founded Isotechnika, Dr. Yatscoff and TEC Edmonton have extensive knowledge and experience in evaluating and protect a tech invention, as well as to advise and grow a viable business.

Calgary Technologies Inc. (CTI) works with entrepreneurs to help them accelerate the success of their technology company, and looks for opportunities to help businesses make connections within the sector. Established in 1981 as a joint partnership with the City of Calgary, the Calgary Chamber of Commerce and the University of Calgary, CTI is a not-for-profit organization and offers a suite of programs, services and resources for business commercialization and incubation.

ORAL ABSTRACTS

CO₂ storage

10:30 – 12:00
SB 146

6. Metal Organic Frameworks: Getting a Better Grip on Carbon Dioxide Capture

Simon S. Iremonger, Ramanathan Vaidhyanathan, George K. H. Shimizu, Peter G. Boyd, Saman Alavi, Tom K. Woo

36. Long-term carbon storage dynamics of wetland (viz. peatland, bog) restoration

Yoseph Zuback, Maria Strack, Colin McCarter, Jonathan Price

47. CO₂ Mitigation through Porous Chemistry: Tripping on Acid and Falling down Holes
Jared Taylor, George Shimizu

345. Long-term carbon storage dynamics of wetland (viz. peatland, bog) restoration
Yoseph Zuback, Maria Strack, Colin McCarter, Jonathan Price

322. Geomechanical Aspects of CO₂ Storage
Somayeh Goodarzi, Antonin Settari, David Keith

385. Empirical Analysis as Relevant to a Carbon Capture and Storage Cluster in the Oil and Gas Industry in Calgary, Alberta
Laurie Ingraham

Biomedical Sciences

11:15 – 12:00
ICT 116

33. Efficient Derivation of mouse Induced Pluripotent Stem Cells in Stirred Suspension Bioreactors
Mehdi Shafa, Roman Krawetz, Brad Day, Akihiro Yamashita, Guoliang Meng, Shying Liu, Derrick E. Rancourt.

400. Directed immune cell migration to sites of non-infectious injury
Keir Pittman and Paul Kubes

Oilsands Upgrading

10:30 – 12:00
SB 142

10. Phase Behaviour Study of Vapor-Liquid Equilibrium for Solvent/Heavy Crude Systems
Mohammad Kariznovi, Hossein Nourozieh, and Jalal Abedi

16. Effects of sonication on the particle size distribution of kaolinite clays
Maedeh Marefatallah, R. Sean Sanders

255. Heavy Crude Oil Upgrading Using Light Hydrocarbons at Ambient Temperature
Hossein Nourozieh, Mohammad Kariznovi, and Jalal Abedi

371. Should Alberta Upgrade Oil Sands Bitumen?
Nicolas Choquette-Levy, Jessica Abella, and Joule A. Bergerson

397. Experimental Study of Capillary Effect in CO₂ Solvent Extraction Process for Oil Sands
Moosa Rabiei, Thomas G. Harding, Jalal Abedi and Mingzhe Dong

Sustainable Energy

10:30 – 12:00
SB 148

55. Experimental study of Direct Methanol Fuel Cell (DMFC)
A. Kianimanesh, Q. Yang, T. Freiheit, D. Xue, S.S. Park

56. Techno-economic Assessment of Compressed Air Energy Storage for Reliable Wind-Based Electricity in Alberta
Hossein Safaei, Ronald Hugo, David Keith

99. Effect of Nanoparticle Size on the Development of Fuel Cell
Hany A. Elsayed and Viola I. Birss

130. Optimal cultivation of microalgae for biofuels production
H. De la Hoz Siegler, R.E. Burrell, W.C. McCaffrey, A. Ben-Zvi

235. Performance Optimization of Vibration Energy Harvesters using a Two-stage Design
Joseph Fernando, Qiao Sun

390. Cellulose degradation by microorganism living in Canadian geothermal springs.
Jones G. M., Sharp C. E., Brady A. L., Grasby S. E. and Dunfield P.F.

SEMINAR

Career Explorer with Dr. Randy Yatscoff:
Isotechnika, a university start-up company

13:30 – 14:30
ICT 116

Dr. Randall Yatscoff was the former President & Chief Executive Officer of Isotechnika. He received his Ph.D. in

Biochemistry from McMaster University in 1980 and his fellowship in Clinical Biochemistry in 1984. He has over 17 years experience as a director of hospital-based diagnostic laboratories at a number of institutions across the country. Much of his research has focused on the area of immunosuppressive drugs, one of the core competencies of Isotechnika. Most recently, in 2002 he received the Outstanding Contribution to Clinical Chemistry Award from the Canadian Society of Clinical Chemistry. In this session, Dr. Yastcoff will talk about his experience with start-up companies, with Isotechnika, and discuss some perspectives on career choices based on his own experiences.

PANEL

New Architecture of the Alberta Innovation System

Panel Members

Dr. Ron Dyck, Assistant Deputy Minister, GoA

Dr. Gary Albach, CEO, AITF

Dr. Eddy Isaac, CEO, AIEE

Dr. Stan Blade, CEO, AI – Bio

Dr. Pamela Valentine, VP Programs, AIHS

Moderated by Tara Narwani

13:30 – 15:00

ICT 122

(adapted from the Government of Alberta website)

Proposed changes to Alberta's research and innovation system will better align resources, making the system more responsive to researchers and entrepreneurs, more accountable to Alberta taxpayers, and more competitive in the global economy.

"We're building a pan-Alberta approach, a system where organizations work together to capture value from research and innovation for economic and societal benefit," said Doug Horner, former Minister of Advanced Education and Technology (AET) as he introduced Bill 27, the Alberta Research and Innovation Act.

"The changes I'm proposing will enable us to take advantage of new economic opportunities and ensure Alberta's place in the next generation economy," Horner said. "We'll also be in a better position to support our researchers and entrepreneurs as they seek solutions to challenges facing Alberta. I'm talking about important societal challenges like removing excess carbon emissions from our air, stopping the spread of pine beetle in our forests, and conserving our water."

The proposed legislation would enable the Alberta government to implement a framework, developed in consultation with stakeholders, which restructures provincially funded research and innovation organizations. The framework would merge 10 existing entities into five new entities: one advisory body and four board-governed provincial corporations. The new entities would be focused on **bioindustries (i.e. agriculture, forestry, life sciences), energy and the environment, health, and bringing technology to market.** The transition to the new framework would take place over the next several months.

"We have an opportunity to significantly advance what we've already achieved in Alberta. We can build on our incredible foundation of excellence, established by the talented staff and researchers of our existing research and innovation organizations," said Horner. "With a stronger system in place, it'll be easier for the next generation of Albertans to make world-class discoveries and create world-class products. And let's face it, we have to make changes today to open more doors for our kids and our grandkids."

ORAL ABSTRACTS

Gender and Society

13:30 – 15:00

SB 146

11. Ungrateful Women: Reflections on Poverty, Discourses of Gratitude, and Contemporary Priorities of the Canadian State

Christine O'Fallon

63. Everyday Implications: Examining Sexual Assault in and as Entertainment Media

Kiara Okita

179. "Navigating a new territory": Women's discourses of singleness in mid-life

Jennifer A. Moore

188. "Gender Trouble:" A (Post)feminist Reading Chinese zhi-guai Tales of Transgender

Wenjuan Xie

Arts, Literature and Music

13:30 – 15:00
SB 142

18. Translating German Choral Music: Cross-Cultural and Aesthetic Challenges in the Interaction Between Word and Music

Isabell Woelfel

140. A Greco-Roman Culture of Pain.

Nicole Wilson

118. The Missing Voices of New Peoples: An Analysis of Metis and Chicano/a Literature

Danielle Lamb

161. Posthumanist Hybridity: The Narratives of Conversion and Western Modernity

Sergiy Yakovenko

164. Feminism and the Twentieth Century Historical Novel

Tegan Zimmerman

Education Development

13:30 – 15:00
SB 148

137. Supporting Graduate Student Use of the AU Landing: A Course Development Case.

Ostaszewski, Nathaniel & Reid, Doug

117. Networked Teacher Professional Development: Assessing K-12 technology teacher professional development delivered within a social networking framework

Nathaniel Ostaszewski

189. Re-STORY-ing Hope: Autoethnography and mothering a child with Asperger's Syndrome

Leanne Shannon

221. The Illusion of Inclusion: The Impact of Education Context on Students with Learning Disabilities

S. Mitchell Colp

330. Playful Minds and Playful Designs: A Childs Perspective

Mahvish Ali Khan

SEMINAR

Tech without Relationships = \$zero

Perry Kinkaide, President, Alberta Council of Technology
15:30 – 16:15
ICT 116

The commercialization of technology is generally recognized as a core economic process for sustaining competitiveness. This fascinating presentation addresses the necessity, the challenges, and the options for diversifying Alberta's prosperous carbon-based Alberta's economy. His premise is that science and technology are unraveling secrets at an ever-more rapid rate, challenging the capacity of organizations as we know them to keep up. The lessons learned are captured in a presentation that concludes with the observation that "technology without relationships, has no value."

SEMINAR

ABCampus of Technology

Chris Lerohl and Ryan Sanders
16:15 – 17:00
ICT 116

ABCampus Tech is a network linking student groups from all Alberta post-secondary campuses to each other and to technology interests within the ABCtech organization of 7000+ subscribers. ABCampus Tech envisions a province of post-secondary students who have built lasting relationships and created entrepreneurial opportunities by connecting Alberta's top students. Our challenge is to provide a platform to bring together Alberta's post-secondary campuses to foster technological innovation, interdisciplinary collaboration, and entrepreneurship. We will be discussing what the organization is currently doing and how you can leverage the ABCampus Tech platform to benefit you or your organizations.

ABCtech Partnership

The ABCtech network provides career mentoring, participation in provocative events with engaging, knowledgeable speakers, job and resume postings and breaking information from incubators and industry leaders. Partnership opportunities include:

- Free student passes to ABCtech events
- Profiling of student leaders and research projects on website

- Networking with other student leaders throughout Alberta
- Networking with industry leaders in Alberta
-

ORAL ABSTRACTS

Agriculture Life Sciences

15:30 – 17:00

SB 148

79. Are measures of animal anxiety accurate? Implications for management of wildlife and captive animals

Petra McDougall

159. Drivers of Pathogen Divergence: Investigating the West Greenland Caribou Herds

Jillian Steele, Susan Kutz, Karin Orsel, and Christine Cuyler

215. Postulating the Impact of Synthetic Biology's Product Promises on the Health and Well-Being of Albertans: A Scoping Review of the Discourse

Amy Johnston

223. Lameness detection in dairy cattle based on body movement pattern analysis

Ahmad Poursaberi, Claudia Bahr, Arno Pluk, Daniel Berckmans

290. Determining the distribution of *Mycobacterium avium ssp paratuberculosis* in free-ranging herds of wood bison in northern Canada

Forde, Taya; Kutz, Susan; De Buck, Jeroen; Elkin, Brett; Orsel, Karin

327. Causes of noxious *Didymosphenia geminata* blooms in mountain streams

Duke, L., Jackson, L.J., Rogers, S., Scrimgeour, G. and S. Vanderzwan.

International Relations and Business Policies

15:30 – 17:00

SB 142

75. Using a Modified Delphi Method in Health Research

Gregory S. Yelland

115. Comparing Regional Cooperation in Europe, Asia and Africa

Jie Chen

124. Intergenerational Externalities and Sustainable Growth

Itziar Lazkano

133. What have we learned? Fieldwork in International Education

Helen Siemens

273. Corporate Social Responsibility Reporting in China

Jing Lu

288. The significance of effective knowledge transfer within a continuously changing industry.

Joanna Desjardins, Leon Prebeau-Menezes, James Premukmar

Infectious Diseases I

15:30 – 17:00

SB 146

253. Roles of an oxidase in the survival of *Burkholderia cenocepacia* and implications for treatment of cystic fibrosis patients.

Katarzyna, M. Stevens, Joe Piedimonte, Jules Philippe, Douglas, G. Storey.

336. *Pseudomonas aeruginosa* bacteria grow together and interact during infections – what does this mean for treatment?

Lisa K. Nelson, Robyn E.A. Elphinstone, M. Mark Stanton, Janessa Helwerda, Raymond J. Turner, and Howard Ceri

373. Resistance of Bacterial Biofilms to Conventional Antibiotics

Michelle A. Stan, Howard Ceri, and Raymond J. Turner

377. Engineering a Novel Vaccine Antigen Using Rational Bioinformatic Design

Dave Curran, Anthony Schryvers

403. Behaviour of Neutrophils in Response to *Staphylococcus Aureus*

Mark Harding, Kaiyu Wu, Kunyan Zhang and Paul Kubes

PANEL

Opportunities and Challenges in the ICT, Electronics and Nanotechnology Sectors

15:30 – 17:00
ICT 121

Each panel member will give a brief introduction on their area of expertise and experiences in the field. The floor will then be opened up to questions from the audience.

Panelists

- James Hildebrandt, CTO and Head Psyko at Psyko Audio Labs Inc.
- Lucas Metiuk, Entrepreneur, Mechanical Engineering
- Timothy Griffin, Founder, President and CEO, Useful Corporation
- Trevor Doerksen, CEO, MoboVivo

PANEL

Importance of innovation and new technologies in overcoming Alberta's energy and environmental challenges

15:30 – 17:00
ICT 122

Each panel member will give a brief introduction on their area of expertise and experiences in the field. The floor will then be opened up to questions from the audience.

Panelists

- Alberta Chamber of Resources
- Gerry Brunka, Director, Engineering, Sustaining Projects, Suncor Energy
- Dr. Soheil Asgarpour, President, Petroleum Technology Association of Canada (PTAC)
- Kevin Swan, President, iNovia Capital
- Alberta Innovates – Energy and Environment

SEMINAR

Alberta Enterprise Corporation

Rod Charko, CEO
3:30-4:00
ICT 114

Alberta Enterprise Corp is a new fund of funds manager. AEC invests in technology venture capital funds with deal flow operations in Alberta and abroad.

In addition to capital, AEC also provide advice to government as well as implement their own direct seed and deal flow programs. AEC aims to directly link

investee funds to quality deal flow with targeted startup and angel assistance programs. Sectors

- Software, ICT, internet and media
- Computing, chips and electronics
- Advanced manufacturing and materials
- Clean and energy technologies
- AgBioTech, pharma/life sciences and medical devices

In this session, Rod will give a brief tutorial on venture capitals and outline the genesis of the Enterprise Fund, its mandate and investment plans.

ORAL ABSTRACTS

ICT/Electronics

16:00 – 17:00
ICT 114

239. Prairie Dog II: Development and Design Evolution of an Unmanned Ground Vehicle

Simon Engler

329. Automatic Hand Gesture Recognition Using Range Cameras

Herve Lahamy

367. A Framework for Requirements Traceability in Embedded Software Systems

Christian Wiederseiner, Dr. Vahid Garousi, Dr. Mike Smith

352. Navigation Mobile Robot based on Neural Network and Fuzzy Logic Techniques

Ting Lei

POSTER PRESENTATION

Networking Reception/Poster Presentation

17:00 – 19:00
MacEwan Ballroom

Those abstracts with odd numbers are to stand by their poster to present their abstract and address any questions from the attending delegates

EXHIBIT

Innovation – Technics of Mind-Body Performance

19:00 – 22:00
Little Gallery, 6th Floor Arts Parkade

A collection of artwork done by Alberta graduate students, showcasing the creative research practices in the art. The exhibit runs from May 2nd to 8th, A closing reception for the art exhibit will be held on Friday May 6 from 7-10pm. Light snacks and cash bar available.

**The Alberta Graduate Conference of 2011
presents the following exhibition:**

Innovation: Technics of Mind-Body Performance



This exhibition is a component of the Alberta Graduate Conference that showcases the various creative research practices of Alberta Graduate Students in Art. This exhibition runs from May 2nd to 8th, at the University of Calgary's "Little Gallery", which is located on the 6th floor of the campus Art Building. A closing reception will be held on Friday, May 7th from 7-10 pm; there will be food and a cash bar for those in attendance.

Saturday, May 7

ORAL ABSTRACTS

Infectious Diseases

9:00 – 10:00

SB 142

144. Herpes Simplex Virus-1, a master at preventing cell death

Kevin Quach and Dr. Jim Smiley

148. Bacterial determinants inducing genomic instability in distal cells

Paul Walz

178. Small multidrug resistance proteins in bacterial antiseptic resistance; structure, function and genetic analysis.

Jason C. Burt, Raymond H. L. Chew, Denise C. Bay, Maria Beketskaia, Raymond J. Turner

222. Novel Bacterial *Streptococcus* Species and Emerging Antibiotic Resistance in Adult Cystic Fibrosis Patients.

Christina S. Eshaghurshan, Margot E. Grinwis, Christopher D. Sibley, Harvey R. Rabin and Michael G. Surette.

Communication Network

9:00 – 10:00

ICT 116

14. Fully Digital Software Defined Radio for Wireless Transmitters

Mohammad Mojtaba Ebrahimi

408. Mobility Trends in Wireless Local Area Networks Md. Moniruzzaman

404. Reconfigurable Antenna Designs Using Custom Fabrication Process

Billy Wu, Dr. Michal Okoniewski, and Dr. Chris Hayden

415. Modeling frequency-dependent response of piezoceramics under large electrical loading

Seyed Abdolali Zareian Jahromi, Qiao Sun

Rehabilitation Medicine

9:00 – 10:00

SA 119

127. Behavioural outcomes of mice perinatally exposed to Fluoxetine

Kiryanova Veronika & Dyck Richard

131. Minocycline may be beneficial following neonatal stroke in mice

TARYN BEMISTER & Richard Dyck

132. The role of inflammatory factor TNF α in spinal cord injury

PENGCHENG HAN and P.J.Whelan

387. Non-invasive Surface Imaging for the Diagnosis, Monitoring, and Treatment of Scoliosis

Dubetz, Tyler; Küpper, Jessica; Smith, Katherine; Howard, Jason; Harder, James; Ronsky, Janet

Cancer

9:00 – 10:00

ICT 116

44. Insights into the molecular basis of cancer and a putative new treatment, as studied by the

PNKP/XRCC4/DNA Ligase IV DNA repair complex **R.**

Daniel Aceytuno, Ross A. Edwards, Ryan Au, and J.N. Mark Glover

50. Elevated Fatty Acid Content in Muscle is reversed by Fish oil in an Animal Model of Colorectal Cancer

Receiving Irinotecan / 5FU

A. Almasud, V.E. Baracos, and V.C. Mazurak

227. Discovery of a novel tool to predict prostate cancer Arash Nabbi, Tarek Bismar and Karl Riabowol

346. The Novel Role of Cdk5 in Cell Division Cycle

Vincent Law & Ki-Young Lee

Inflammatory Diseases

9:00 – 10:00
SB 148

40. Peripheral immune-to-brain signaling during peripheral organ specific inflammation: implications for development of sickness behaviors

Charlotte D’Mello, Tai Le, Mark G. Swain

236. The Role of Reproductive Hormones in Women with Optic Neuritis

Trufyn J, Costello F, Burton J, Eliasziw M, Corenblum B

244. Functions of EMMPRIN, a novel factor in MS, investigated using antibodies

Smriti M. Agrawal, Claudia Silva, Janet Wang, and V. Wee Yong

305. The role of invariant NKT (iNKT) cells in sterile inflammation

Pei Xiong Liew and Paul Kubes

Environmental Impact Assessment

9:00 – 10:00
ICT 114

41. Biofilms, Drinking Water and You: What is living in our water systems?

Monika Schwering, Jessica Leong, Rhonda Schop, Marie Louie, Raymond Turner and Howard Ceri

114. A preliminary assessment of Pennsylvanian-Permian mixed carbonate-siliciclastic cycles, Sverdrup Basin, Canadian Arctic

Victoria Walker and Benoit Beauchamp

357. Nutrient accumulation in Bow River, Alberta and effects on diel oxygen cycles and longnose dace (*Rhinichthys cataractae*)

Cecilia Chung and Dr. Leland Jackson

364. Simulating Creatures: Agent-based modeling in wildlife ecology and management

Adam McLane, Christina Semeniuk, Greg McDermid, Danielle Marceau

BREAK

Networking Coffee Break

MacEwan Hall
10:00 – 10:30

PANEL

Career Explorer – Fix the PhD

10:30 – 11:30
ICT 122

Matt Rawluk, Molecular Research
Randy Goebel – Alberta Innovates Academy
Perry Kinkaide – Alberta Council of Technologies

Our panel speakers will give a brief introduction on their background. Discussion will commence focusing on the post-graduate training, career prospect in academia/industry and current state of the post-graduate program.

ORAL ABSTRACTS

System Network

10:30 – 11:30
ICT 114

207. Automated Testing of an Industrial Supervisory Control and Data Acquisition (SCADA) Software System
Shahnewaz Amin Jolly, Vahid Garousi

280. Virtual Experiments: From Climate Models to Lung Chips
Ms. Kimberly Brumble

307. Automatic Deployment of Software GPS Receivers on Personal Computers
Martin Ma

389. Zooming out on Complex Networks
Golnoosh Bizhani, Vishal Sood, Claire Christensen, Seung-Woo son, Maya Paczuski, Peter Grassberger

Food Agriculture

10:30 – 11:30
SB 142

24. Effect of lactic acid bacteria on the growth of *Listeria monocytogenes* in and colour of fresh beef sausage
Emefa A Monu, Kamila Moquin and Lynn McMullen

157. Comparison of Residual Starch Determination Methods in Distillers’ Grains with Solubles (DDGS)
Reed, K., Vasanthan, T., Bressler D.C.

194. The role of motility and nutrients in bacterial colony formation and competition
Silogini Thanarajah

398. Enzymatic hydrolysis of leftover egg yolk after removal of Immunoglobulin Y: A potential approach for phospholipids extraction using SC-CO₂ technique
Sahar Navidghasemizad

Health Information Systems

10:30 – 11:30
SB 148

143. Automatic Stroke Assessment: Using Software to Help Less Experienced Physicians Perform like Stroke
Quinn Thomson, Jayesh Modi, Mayank Goyal, and Ross Mitchell

147. Efficiency in Health Care: Barriers and Enablers to the Completion of Scheduled Appointments
Stacy Kozak, Dr. William Chad Saunders

260. Reliable software development for biomedical systems
M. Smith, J. Miller, S. Islam, V. Garousi, R. Frayne, A. Beaudin

282. The Visualizing of Medical Technologies: Framing the Human, Framing Technology
Kimberly Johnson

Physiology

10:30 – 11:30
SB 105

274. Prebiotic fiber supplementation following oversuckling in rats promotes higher count of healthy colonic bacteria
Reid, DT & Reimer, RA

225. Understanding how hypothalamic development contributes to obesity
Kar. Deepon, Kurrasch. Deborah

289. Renal Effects of Nitric Oxide are Modulated by Angiotensin II During Postnatal Development
Angela E. Vinturache, Francine G. Smith

405. Improving Breast Cancer Detection through Microwave Imaging
Charlotte Curtis, Elise Fear

Construction Management

10:30 – 11:30
ICT 116

51. A Planning Tool for Construction Waste Management
Sujeewa Wimalasena, Janaka Ruwanpura and Patrick Hettiaratchi

74. An accurate solution for prediction of fiber-reinforced concrete behavior under flexure
R. Ahmadi, P. Ghoddous, M. Sharifi, **V. Mojarrah Bahreh**

220. A field study of thermal comfort and energy use with radiant heating walls
Susana Garcia San Roman

424. Finite Element Analysis of Shear-Deficient Beam-Column Joints Strengthened with Steel-Reinforced Polymers for Seismic Resistance
Maryam Mahmoodi, Dr. Mamdouh El-Badry
Poster Session – Energy, Environment and Renewable Resources

LUNCH

Networking Luncheon

11:30 – 13:00
MacEwan Hall A & B

PLENARY

COLD-FX®: A “Blue Ocean” Strategy

Jacqueline Shan, CSO, Afexa
13:00 – 14:00
MacEwan Hall



Dr. Shan received her PhD in Physiology from the University of Alberta in 1992 and her PhD in Pharmacology from the Chinese Academy of Medical Sciences/Peking Union Medical College in 1993.

Dr. Shan is the co-founder of Afexa Life Sciences Inc., a company spun

off from the University of Alberta in 1992. She helped the Company set its original vision: to be the leader in discovering, developing and commercializing evidence-based polymolecular botanical medicines.

In 2003 Dr. Shan was appointed President and CEO of Afexa. Immediately, she led the company to pursue an aggressive commercialization plan, which resulted in phenomenal sales growth of its flagship product, COLD-FX®: COLD-FX®, which she co-discovered, has been the number-one-selling and number-one pharmacist-recommended natural cold/flu remedy in Canada every year since 2005. Now Afexa's Chief Scientific Officer, Dr. Shan is the architect of the Company's core strategy of establishing a new category of natural medicines, polymolecular botanical medicines.

Dr. Shan is the recipient of more than 25 national and international awards in both business and science, including the "Alberta Centennial Medal" from the Premier of the province in recognition of outstanding service to the people and the province of Alberta; recognition as one of "Canada's 100 Most Powerful Women" by the Women's Executive Network; recognition as one of "Canada's 50 Most Powerful Women" by Profit magazine; designation as a "Woman of the Vision," awarded by Global Television; and the inaugural "Best of Best of Chinese-Canadian Entrepreneurs" award from the Chinese Canadian Business Association. Dr. Shan has been inducted into the "Canadian Pharmaceutical Industry Hall of Fame," and has been on the cover of more than 10 science and business magazines in Canada.

POSTER

Communities Networking Poster Session

14:00 – 16:00

MacEwan Ballroom

Abstracts with EVEN numbers are to present on this day.
Coffee will be served at 14:30

PLENARY

AGC Best Oral Abstracts

16:00 – 17:45

SB 103

The best oral abstracts from the 3-day conference are selected by a team of judges where they will duke it out in a head-to-head finale competition for the top \$5000 best oral abstract award.

Awards Presentation for oral and poster presentations winners, including runner ups, will follow.

PLENARY

Darwin's Sexy Science:

Jay Ingram – Host, Daily Planet, Discovery Channel

MacEwan Hall

18:00 – 19:00

Details see below.

BANQUET

Closing Night Dinner Gala

19:00 – 21:00

MacEwan Hall A&B

Buffet dinner served. Catering provided by the University of Calgary Conferencing and Residence Services.



Keynote Plenary

Darwin's Sexy Science:

Jay Ingram – Host, Daily Planet, Discovery Channel

MacEwan Hall, 18:00 – 19:00

Charles Darwin first came up with the idea that male animals would display their antlers, or peacock's tail, or sheer size to attract females. Today it's bling, Porsches and muscle tee-shirts. How humans follow the mating rules of the animal world.

Jay Ingram is one of Canada's best-known science popularizers, Jay Ingram is co-host and producer of Daily Planet, television's first daily science show. His Jay's Journal is a well-known regular feature of that program.

Ingram hosted CBC Radio's science program Quirks And Quarks from 1979 to 1992, earning him two ACTRA Awards, including one for Best Host. During the '80s, he was also Contributing Editor to Owl Magazine.

He was been awarded the Royal Society of Canada McNeil Medal for the Public Awareness of Science in 1984, the 1986 Sandford Fleming Medal from the Royal Canadian Institute for his work popularizing science, and the 2001 Michael Smith Award for Science Promotion by the Natural Science and Engineering Research Council of Canada. Additionally, Ingram was appointed to the Order of Canada in 2009. He holds five honorary doctorate degrees: from Carleton University, McGill University, McMaster, the University of Alberta and King's College in Halifax, and is also a Distinguished Alumnus of the University of Alberta.

Ingram has written eleven books, several of which have been best-sellers, with three winning Canadian Science Writers' Awards. His latest is Daily Planet: The Ultimate Book of Everyday Science. He is an engaging, provocative speaker who can address complex, scientific issues in non-technical terms, making them interesting, relevant and accessible to a wide range of audiences.



ALBERTA INNOVATES CONNECTOR

Your personal guide to research and innovation in Alberta

Alberta Innovates Connector is a free, personalized service that connects you to the resources, organizations and people that make up Alberta's vibrant and diverse research and innovation system.

HELPING YOU INNOVATE

If you're an innovator looking to create a prototype, need professional expertise to help test your product or find sources of financing, but don't know where to go, there's an easy way to get the information and help you need by contacting the Alberta Innovates Connector.

The Connector can:

- assess your business needs and direct you to appropriate programs and services
- introduce you to key contacts within Alberta's research and innovation network
- save you time, energy and resources by helping you get the right information when you need it

"The Connector was a huge value in helping me to understand what stage of product development I am in and what resources and supports are available at this stage."

Nicole Wherry

medical technology entrepreneur



HELPING YOU COLLABORATE

The Connector connects you with the right partner to collaborate on new initiatives and realize new opportunities.

The Connector can:

- help to facilitate introductions between stakeholders, researchers and entrepreneurs
- help to bridge the gap between Alberta's research organizations, universities and publicly funded innovation support services
- connect international partners to Alberta's research and innovation network

"I'm so impressed with the Connector service.

While developing a new IT business I was having a great deal of difficulty seeking the resources I needed. The Connector was a tremendous help in providing information and putting me in touch with private sector contacts that will help me develop my IT business."

Jackie Northey

information technology entrepreneur

CONTACT US

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Call 1-877-828-0444, e-mail connector@albertainnovates.ca
or visit albertainnovates.ca



Poster Abstracts Directory

Energy, Environment and Renewable Resources

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21. Past and Future Glacial Melt Contributions to the Bow River, Alberta, Canada

Eleanor A. Bash, Shawn Marshall

23. Landscape-level changes to bumble bee distribution and abundance in response to clearcut logging

Alexandria MA Farmer, Ralph V Cartar

42. Determination of the Convective Heat Transfer Coefficient for Hot Air Rising through Terracotta Tubes

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57. Investigation of Precipitation Patterns Variability over the Ethiopian Highland

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58. Gastrointestinal parasites in and dogs and coyotes in urban parks: implications for public health and city park management

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59. Isotopic Apportionment of Natural and Anthropogenic Sources of Nitrate in the Bow River, Alberta

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65. Developing a serological assay for surveillance of winter ticks (*Dermacentor albipictus*) in caribou and moose

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83. Evaluating satellite derived surface temperature and temperature vegetation wetness index as forest fire risk indicator in boreal forest regions of Alberta

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105. Storm Surges in the Arctic: A Case Study in the Mackenzie Delta, NWT, Canada

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107. Minimizing Travel Distance in Construction Sites Using MTPE Principle from Physics

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108. An Expression for Carbon Dioxide Dissolution in Ionic Liquids

Soheil Mortazavi-Manesh, Marco Satyro, Robert A. Marriott

111. Spatial Variability of growing degree days using remotely sensed surface temperature in Alberta

Kazi Mahmudur Rahman, Quazi K. Hassan, Musa Shammi Akther

138. Valuing lions through an ecosystem services approach.

Courtney Hughes

142. Influence of pipeline segment on landslide susceptibility along North Thompson River near Kamloops (British Columbia, Canada)

Bhavya Singh

152. Reducing Global Warming from Freight Transportation: A Closer Look on Traffic Signal

Tanjin Rahman, Shahadat hossain, Farnaz Sadeghpour

160. Small Wind Turbines Noise Issue

Ehsan Mollasalehi-David Wood-Qiao Sun

165. Metabolomics of Copper Toxicity in *Pseudomonas fluorescens*

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176. Cavity growth in Underground coal gasification

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177. Simulation of Biodensification in Oil Sands Tailings.

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195. Multiple model MIMO predictive control for variable speed variable pitch wind turbines

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205. Developing new category of RF MEMS devices for all-weather radars
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216. Integration of Geological and Petrophysical Data for Evaluation of an Unconventional Shale Gas Reservoir; Lower Montney Formation (Units C&D), West-Central Alberta, Canada
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303. Rock Strength Calculation and Drilling Optimization.
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306. Measurements of Nitryl Chloride (ClNO₂) in Calgary, Alberta
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308. Investigation of Precipitation Patterns Variability over the Ethiopian Highland
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313. Hydrate Saturation: Relationship to Undrained Loading, Challenges in the Estimation, and Sensitivity to Measurements and Assumptions
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315. Carbon dioxide dynamics of recolonized cutover minerotrophic peatland: Implications for restoration
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320. Evaluation of Tight Gas Reservoirs by a New Production Decline Analysis Method
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326. How accurate is the estimation of effective permeability obtained from Swanson's Rule
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328. Chromatography with a Water Stationary Phase and Carbon Dioxide Mobile Phase
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338. Deposition of buoyant hydrochorous seeds along river margins
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341. Modeling ground/wall effects on a ducted fan for applications in real time control of indoor flights.
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342. Experimental study of Direct Methanol Fuel Cell(DMFC)
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353. Microbial communities in oil sands cores collected for production by Steam-Assisted Gravity Drainage (SAGD) in Alberta, Canada
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354. Function of a Genomic Island in *Desulfovibrio vulgaris* Hildenborough in Promoting Resistance to Oxygen and Nitrite stress
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366. Performance of theoretical models in predicting permeability of gas hydrate bearing sands
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370. Fossil horse teeth and their bearing on the taxonomy of North American late Pleistocene horses: A quantitative morphological study of the third and fourth upper premolars
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406. Junctionless carbon nanotube spin valves

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407. Electrodeposited Pt-Ir thin films as Efficient Anode
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409. Water Soluble Carbenes

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411. Foamy Oil Flow Measurements

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420. Ancient chemosynthetic life in the Canadian Arctic:
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19. Do researchers use communication as an outcome measure? A scoping review of pharmacists' involvement in diabetes care

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27. FoxF2: A role in vascular stabilization

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29. A Pilot study characterizing pre- and post- treatment metabolomics profiles of lung cancer patients

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30. Junctionless carbon nanotube spin valves

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34. The Use of Manganese-Enhanced Magnetic Resonance Imaging in Behavioral Studies

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38. Early circadian abnormalities and neuropeptide degeneration within the circadian pacemaker are predictive of future Alzheimer's disease pathology.

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80. The effect of adenosine deaminase on dendritic cells in type one diabetes development

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88. Serotonergic enhancement of photic phase shifts involves altered time courses for some immediate-early genes

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93. Intracellular Trafficking of a non-viral gene carrier

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101. Targeting Matrix Metalloproteinases in Hypertension and Hypertensive Cardiac Disease

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170. THE ROLE OF REPLETION OF VITAMIN D ON BLOOD PRESSURE AND RENIN-ANGIOTENSIN SYSTEM ACTIVITY IN HEALTHY HUMANS
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171. Gastrointestinal parasites in and dogs and coyotes in urban parks: implications for public health and city park management
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175. A SYSTEMATIC REVIEW OF COMMUNICATION PRACTICES IN INTENSIVE CARE
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186. Characterizing the Cellular Cryobiological Response Using Interrupted Cooling Protocols
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190. Critical behaviour in biological membranes
Diana Radovan, Matthias Amrein
199. The elucidate the interaction between the ferric binding protein A and ferric binding protein BC in pathogenic gram negative bacteria
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200. EFFECTS OF INTERMITTENT HYPOXIA ON ARTERIAL BLOOD PRESSURE AND CEREBRAL BLOOD FLOW IN HEALTHY HUMANS: ROLE OF CYCLOOXYGENASES
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219. Do These Genes Make Me Look Fat?: Studying Growth in *Drosophila*
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237. Susceptibility weighted MRI shows a link to iron in an animal model of multiple sclerosis
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243. Minocycline as a potential agent to reverse long term changes in brain excitability following perinatal LPS exposure.

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259. Developing novel approaches of analyzing mitochondrial DNA using microfluidic chips
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261. Characterizing the role of Skin-derived Precursors (Skps) in hair follicle morphogenesis and dermal regeneration

Andrew Hagner, Jeff Biernaskie

264. Zyxin rearrangements in blood vessel cells during inflammation

Juan Voutsas, Dr. Pina Colarusso, Dr. Kamala D. Patel

266. Resolution of blur in the older eye: Neural compensation in addition to optics?

Crowe, G. H. and Kline D. W.

267. Examining Chronic Bacterial Infections in the Genetic Disease Cystic Fibrosis

Josie Libertucci and Douglas G. Storey

270. Rapid and Reliable Tumor Volume Measurement

Ms. Mong Dang; Dr. Jayesh Modi, MD; Mr. Mike Roberts, MSc; Dr. Christopher Chan, MD, Dr. Ross Mitchell, PhD

275. PROTEASE-ACTIVATED RECEPTOR 2 PROMOTES COLONIC HEALING AFTER DSS-INDUCED COLITIS BY ENHANCING EPITHELIAL CELL SURVIVAL

V. Iablokov, M. Dickey, C.L. Hirota, W.K. MacNaughton

285. Intracellular Pathways Responsible for Trypsin-Induced Change in Transepithelial Resistance

Aman Wadhwani, Wallace K. MacNaughton

291. Reversal of Type 1 Diabetes by boosting memory-like autoregulatory T-cells with a pMHC-coated nanoparticulate vaccine

Sue Tsai, Afshin Shameli, Jun Yamanouchi, Xavier Clemente-Casares, Jinguo Wang, Pau Serra, Yang Yang, Zdravka Medarova, Anna Moore and Pere Santamaria

292. Lack of vesicular zinc contributes to sensory deficits later in life: Whisker-related sensory profiling of ZnT3 knock out mice

Hsia Pai Patrick Wu

296. TESTING THE HAIR FORMING ABILITY OF AMNION TISSUE IN RESPONSE TO THE INDUCTIVE ACTIVITY OF SKIN-DERIVED PRECURSORS (SKPs)

Sepideh Abbasi, Xiang Zhao, Jeff Biernaskie, James Cross

301. Antimicrobial Susceptibility of Cystic Fibrosis Airway Isolates of the *Streptococcus milleri* Group.

Margot E. Grinwis, Christopher D. Sibley, Michael D. Parkins, Christina S. Eshaghurshan, Harvey R. Rabin, and Michael G. Surette

311. Lactoferrin Binding Protein B genes are widely present in *Neisseria* species

Ari Morgenthau, Paul Adamiak, Amanda J. Beddek, Anthony Schryvers

314. INTRATUMORAL MACROPHAGES CONTRIBUTE TO A MICROENVIRONMENT THAT PERMITS THE LATTER STAGES OF TUMOR DEVELOPMENT.

C Chatten-Grant, M Dean, K Gratton, N Van Rooijen, P Santamaria and OF Bathe

316. Understanding of the enhancement of glucocorticoid-dependent transcription by β_2 -adrenoceptor agonists

Christopher F. Rider, Mark A. Giembycz and Robert Newton

317. **B Vitamins decrease microglial activation in a concentration and combination dependent manner**
Kamaldeep S Dhami, Serdar Dursun, and Kathryn G Todd
331. Nitric oxide regulation of colonic epithelial ion transport: a novel role for enteric glia in the myenteric plexus
Sarah J MacEachern, Derek M McKay, Wallace A MacNaughton, Keith A Sharkey
334. Intracellular pH modulates sensitivity to an anti-cancer lysophospholipid in yeast
Ola Czyz1, Faustino Mollinedo2, Christopher R. McMaster3, Vanina Zaremborg1
335. Diagnostic performance of cardiovascular magnetic resonance sequences in atrial septal defects
Cheryl Zvaigzne
343. Interactions Between Proteins – Understanding Cellular Functions at the Molecular Level
Tara M. L. Winstone and Raymond J. Turner
344. Traumatic Brain Injury and Cerebral Metabolism
Sanju Lama, Boguslaw Tomanek, Garnette R. Sutherland
350. Nlrp3 in Renal Inflammation
Akosua Vilaysane, Justin Chun, Mark E. Seamone, Wenjie Wang, Rick Chin, Simon Hirota, Yan Li, Sharon A. Clark, Jurg Tschopp, Paul L. Beck and Daniel A. Muruve.
355. Modulation of stem cell pluripotency markers by fluid shear stress
Giovanna Lara, Robert Shepherd, Kristina Rinker
358. Biochemical identification of PKA and PKG phosphorylation sites of the myosin phosphatase targeting subunit (MYPT1) support the validation of phospho-specific antibodies **(Friday Evening)**
Mike Grassie, Shannon Brown, Annegret Ulke-Lemee, Mona Chappellaz and Justin MacDonald.
359. Assessing Catheter Contact in Radiofrequency Cardiac Ablation Using Complex Impedance
Neal P. Gallagher, Israel J. Byrd, Elise C. Fear, Edward J. Vigmond
360. Does time of day affect stroke severity?
Brooke Rakai1 and Michael C. Antle
362. Investigating Ca²⁺-Calmodulin-Myosin Light Chain Kinase Activation Using Hydrogen-Deuterium Exchange Mass Spectrometry.
Lily Choi, Michael Walsh¹, John Chik
365. Structural and Functional Studies of Hepatitis C virus RNA dependent RNA polymerase
Chandni Rao, Dr. Kenneth Ng
368. Immunological studies on Leishmania iron superoxide dismutase B1
Nada S. Daifalla, Abebe Genetu Bayih, Lashitew Gedamu
375. Does High-Intensity Interval Training Induce the Development Cardiac Edema?
A Cardiovascular Magnetic Resonance Study
Myra S. Cocker¹; Mark J. Haykowsky²; Matthias G. Friedrich¹
376. PPAR γ Dependence Of the Cyclosporine-Isoprenaline Renovascular Interaction: Roles of Nitric Oxide Synthase And Heme Oxygenase.
Khaled S. Abd-Elrahman, Hanan M. El-Gowell, , Evan I. Saad, Abdel-Galil A. Abdel-Galil, Mahmoud M. El-Mas
379. Comparative interaction of two platinum-based anti-cancer drugs with human plasma *in vitro*
Melani Sooriyaarachchi, Aru Narendran and Jürgen Gailer
380. Design, Synthesis and Assay of Glutathione Peroxidase Mimetics
David J. Press, Eric A. Mercier, Du an Kuzma, and Thomas G. Back, Nicole M.R. McNeil
392. Diagnosing asthma using a urine sample and Nuclear Magnetic Resonance
Erik J. Saude, PhD, Christopher Skappak, Brian D. Sykes, PhD, Brian H. Rowe MD, and Darryl J. Adamko, MD, FRCPC
401. Dual Role of an Inflammatory Factor, Tumor Necrosis Factor-alpha in Regulation of Vascular Smooth Muscle Cells
Pavneet Singh, Xi-long Zheng
410. Cigarette Smoke Alters Airway Responses to Human Rhinovirus
Magdalena H. Hudy, Shahina Wiehler and David Proud

426. Cellular Energy Production (The Cox15 protein and Cytochrome c Oxidase Assembly)

Alina C. Rumley, Iveta Sosova, and Moira Glerum

427. Endocrine Disruption by Environmental Chemical Contaminants: Genomic Approach

Zare A, Jackson LJ and Habibi HR.

431. Concurrent Direct Current Stimulation Supports Forelimb Rehabilitation and Recovery Through Improved Inter-hemispheric Coherence After Stroke in Rats

Darryl C. Gidyk, Andrea Gomez Palacio Schjetnan, Artur Luczak, Gerlinde A. Metz

433. Mechanism used by *Pseudomonas aeruginosa* to evade neutrophil killing

T. Halverson, S. Lewenza

Agriculture Life Sciences and Biotechnology

9. The Influence of Differential Diets on the Growth of Juvenile Leopard Geckos (*Eublepharis macularius*).

Sabrina Hynes, Anthony P. Russel

91. Claw Curvature in Amniotes: A Comparison of Methods

Alexander Tinius, Tasha Chebet and Anthony Russell

96. Bovid horns as models for ceratopsid dinosaur cranial horns

Borkovic, Ben; Russell, Anthony

104. Smaller male mountain pine beetles selected against by cold winter temperatures

Leanna Lachowsky, Mary Reid

141. Using Research in ways that never been used before

Salim Ghandorah

145. Characterization of a system specific chaperone in the maturation of dimethylsulfoxide reductase in bacteria

Leach, T.G.H, Winstone T.M.L and Turner R.J.

210. Nak1 oligomerization is important for its function.

Guohong Liu, Dallan Young

281. Endocrine disrupting compounds and their effects on longnose dace within the City of Calgary

Suzanne Henderson, Kristine Woodward, Kyle Mizen, Ava Zare, Julia Jordan, Lee Jackson, Aalim Weljie, Hamid Habibi

310. Endocrine disrupting chemicals cause metabolic dysregulation in male goldfish

Jordan J., A. Zare, F. Pang, L. Jackson, A. M. Weljie, and H. R. Habibi.

369. Agriochorid Oreodont Diversity of the Uintan NALMA (poster)

Ludtke, Joshua A.

413. Early Paleogene insectivorans from the Roche Percée localities, southeastern Saskatchewan, Canada

Brian D. Rankin

ICT, Electronics and Nanotechnology

35. High Density Integration of Carbon Nanotube Spin Valves

Abhay Pratap Singh, Sandipan Pramanik

66. Experimental and Theoretical Studies of Spiroconjugated Radicals: New Building Blocks for Molecule-Based Materials

Jani Moilanen, Roland Roesler and Heikki M. Tuononen

94. Accelerated medical image fusion on graphics processors using the OpenCL (Open Computing Language) framework

Sachitsing Dwarkan

196. A User-Centered Key Revocation Scheme in MANETs

Tongjie Zhang

202. A Systematic Literature Review of Software Engineering for Scientific and Engineering Software and an Industrial Pipeline Software Case Study

Roshanak Farhoodi, and Vahid Garousi

203. Development of Highly Sensitive Superconducting Detectors for Far-Infrared Application

Yuan Zhang, David Naylor, Darren Hayton

211. SRP-Plugin: A Strategic Release Planning Plug-in for Visual Studio 2010

Jamshaid G. Mohebzada, Guenther Ruhe, Armin Eberlein

214. Mutation Testing Integrated into Model Checking: A New Verification Method

Ali Abbasinasab, S. Mohammadi, S. Yanushkevich, M. Mohammadi and M. Smith

218. Maximizing Output energy of Piezoelectric Micro-Energy Harvesters

Mehdi Rezaeisaray, Don Raboud, Walied Moussa

224. Analytical Modeling of the Variation in Diffusion Coefficient by Scale in Fractured Rocks

Armin Sharifi

246. Numerical Extraction of the Cole-Cole Impedance Parameters

Todd Freeborn, Brent Maundy, Ahmed Elwakil

258. Application of photo thermal deflection spectroscopy technology from war fare detection to oil sands remediation

Anirban Chakraborty¹, Seonghwan Kim¹, Dongkyu Lee², Sangmin Jeon², Sundeep Srinivasa¹, Thomas Thundat¹

265. Particle Swarm Optimization of FRM IIR Digital Filters over the CSD Multiplier Coefficient Space

Seyyed Ali Hashemi, and Behrouz Nowrouzian

276. Detection of Road Kerb from Mobile Terrestrial Laser Scanner Point Cloud

Sherif Ibrahim and Derek D. Lichti

295. Fairness in Dynamic Speed Scaling Design
Maryam Elahi

299. Linear Approximation for Energy and Throughput Optimization for Wireless Sensor Networks

Mohamed Elserisy, Jaya Rao, Geoffrey messier, Michel Fattouché

300. Change in the living functions of bone tissue caused by carbon nanotube reinforcement
Kaveh PourAkbar Saffar

321. Analysis and mitigation of transmitter system imperfections with neural network based modeling and control

Meenakshi Rawat, Fadhel M. Ghannouchi

323. Optomechanical Sensor

S. Gholizadeh¹, F.SohbatZadeh¹, R.Ghobadi², and C. Simon²

325. Node-Encircling p -Cycle Network Design With Modified ILP Model

Ahmed Kasem^{1,3}, Roberto Gallardo², and John Doucette^{2,3*}

339. Identification of Joint Dynamics in an Assembled Structure

M. Mehrpouya and S.S. Park

340. H2 optimal output feedback with guaranteed margins

Julian Ehlers, Jeff Pieper

388. Modeling and Control of a Special Unconventional Unmanned Aerial Vehicle

Nasibeh Amiri

396. Silicon Nanocrystals and their encapsulation within a porous silica shell; Synthesis and use as a drug delivery vehicle

Sarah Regli, J. A. Kelly, M. A. Barnes, J.G.C. Veinot

402. Design and hardware Implementation of a Log-Domain High-Speed Fuzzy Control System

Ali Razib, Scott Dick and Vincent Gaudet

414. New Resources for Quantum Computing Based on Measurements

Adam G. D'Souza and David L. Feder

423. Interactive Image Segmentation for Ores from Oil Sand Mining Imagery

Hui Wang, Hong Zhang

International Relations and Business Economic Policies

71. Optimum contracting strategies under extremely volatile market conditions

Yeganeh Amini

76. So what is Organizational Culture anyway?

Gregory S. Yelland

153. Optimal Supply Chain Replenishment under Uncertain Forecasted Demand

Suvra Saha, Dr. S. T. Enns

181. Physical environment design and store mix of shopping malls using conjoint analysis

Hedieh Hafezi, Dr. Mohsen Nazari

293. Who “hurts” unskilled labor in U.S labor market--- International Trade or Technological Change?

Victor (Yang) Song

361. A Privacy Ontology

Maryam Majedi

418. Optimum contracting strategies under extremely volatile market conditions

Yeganeh Amini-**Atieh Davoudi**

Arts Culture and Community Development

2. Women’s Sexual Identities: Investigating Forms of Empowered Expression

Sherryl Melnyk

7. Prevention of Eating Disorders and Obesity: A Developmental Assets Approach.

Shannon Ross, Niki Whitefield, Erika Mohle, and Dr. Shelly Russell-Mayhew

54. It Matters How You Think About It: The Role of Construal on Consumer Charitable Contributions of Time and Money

Rhiannon MacDonnell & Katherine White

70. Design of a Learner-Directed Adaptive Model for E-learning

Stella Lee

72. It Matters How You Think About It: The Role of Construal on Consumer Charitable Contributions of Time and Money

Rhiannon MacDonnell & Katherine White

85. Effects of Post-Tensioning Ducts on Shear Strength of Thin Webs of Bridge Girders

Nora Ragab, Dr. Mamdouh El-Badry

92. Open Building: Responsible + Responsive

Azadeh Eshghzadeh

95. Architecture and Animation: Escape, Experience, Transform.

Fadilah Hamid

97. Consumers and Collective Meaning Co-Creation in an Online Community

Prakash Das

109. Evidence-Based Design: Research & Practice in Interior Design

Cynthia Nemeth

120. Education on the move.

Peggy Jubien

128. No Title

Joaquin Gaete, Roberto Aristegui

136. Utilizing Social Networking Sites and Web 2.0: Building and Sustaining an Online Community of Practice

Ostashewski, Nathaniel & Reid, Doug Dr. & Ostashewski, Marcia Dr.

139. The Development of Creativity: A Study of Creative Adolescents and Young Adults (**present on Saturday**)

Krystyna Laycraft

154. Language-Minority Children and Writing Literacy Development

Xiaohong Feng

155. Sustainable Conservation Strategies for Farash Ganj at Old Dhaka

Matluba Khan, Tanjin Rahman

156. The Temple of Asklepios at Corinth

Amber J. Porter

167. “It is Easier to Digitize than to Synthesize”: Graduate Student Reflections on Integrated Landscape Research

Hiebert, Lynette; Ing, Jasmine; Morrison, Katie

168. Everyday Implications: Examining Sexual Assault in and as Entertainment Media

Kiara Okita

191. Thinking Cards for the Measurement and Intervention of Metacognition in Early Mathematic Learners

Meghann Fior, Dr. Michelle Drefs, Al Gorewich and Samantha Lewycky

234. Arts-based Community Development: Community's Pulse in the Cinematic Cairene Dystopia of *Yaqoubian Building*

Suzan Masoud

241. From Deficits to Strengths: Shifting the Perspective of the Study of ADHD

Emma A. Climie, Sarah M. Mastoras, Vicki L. Schwean, Donald H. Saklofske

249. Resilience Profiles in an Undergraduate Population
Crumpler

272. Socrates: *Sophos* or Sophist?

Megan Falconer

277. Out of Conflicts and into Cosmopolitanism: A Sino-Euro Comparison

Yao Xiao

312. University Administrators and the Role of Story in Organizational Change

Andy Rathbone

332. Centre for Affordable Water and Sanitation Technology: Client progression research

Nahid Sultana

395. Otherness in *Hayy Ibn Yaqzan* and *Robinson Crusoe*
Banan AlJahdali

399. A Life Abroad: A Unit Plan Preparing People for Life in Canada

Shahista Nathoo

412. The Catholic-Protestant Voting Cleavage in Canada
Paul Fairie

431. Engagement and Research in a Community Development Project with Youth in a Low-income Housing Complex

Karina Ramdath, Jennifer Hewson, Christine A. Walsh, and Cathryn Bradshaw

429. Uncovering invisibility(ies): Understanding the experiences of newcomer women across the homeless spectrum

Physick, E., Walsh, C. A., Rutherford, G. & Romero, S.

430. No Professional Left Behind: Addressing the Gap in Employment Readiness Programs

Brianna Hilman