The Sixteenth Annual Scientific Meeting for Health Science Research Trainees  
Faculty of Health Sciences  
Queen’s University

Wednesday, June 5th, 2013  
Biosciences Complex  
Sponsored by

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- Brian Bennett, Biomedical and Molecular Sciences
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Session Chairs

- Douglas Munoz, Biomedical and Molecular Sciences
- Donald Maurice, Biomedical and Molecular Sciences

Members of the Adjudication Team

- TBA

Acknowledgments

Special thanks to Alana Korczynski for her invaluable assistance in organizing this meeting.
The Sixteenth Annual Scientific Meeting for Health Science Research Trainees
Faculty of Health Sciences
Queen’s University
Department of Biomedical and Molecular Sciences
Faculty of Health Sciences
Queen’s University
Wednesday, June 5th, 2013
Biosciences Complex, Room 1101

8:00 – 8:45
Registration and A.M. Poster Set-Up
(Even Numbered Abstracts)

8:45 – 9:00
Introductory Remarks
Dr. Brian Bennett, Associate Dean, Graduate and Postdoctoral Education, Faculty of Health Sciences
Dr. Richard K Reznick, Dean, Faculty of Health Sciences and Director, School of Medicine

Oral Presentations
Chair: Dr. Douglas Munoz

Cancer Research & Therapy

9:00 – 9:12
PATIENT-REPORTED OUTCOMES IN CLINICAL PRACTICE: PERSPECTIVES FROM CANADIAN ONCOLOGISTS. Rouette, Julie 1,2; Walker, Melanie 1,2; Meyer, Ralph 1; Blazeby, Jane 3; Calvert, Melanie 4; King, Madeleine 5; Peng, Paul 1,2; Ringash, Jolie 6; Brundage, Michael D. 1,2 1Cancer Research Institute, Queen’s University, Kingston, Ontario, Canada; 2Dept of Community Health & Epidemiology, Queen’s University, Kingston, Ontario, Canada 3School of Social & Community Medicine, University of Bristol, Bristol, United Kingdom; 4School of Health & Population Sciences, University of Birmingham, Birmingham, United Kingdom; 5School of Psychology, University of Sydney, Sydney, Australia; 6Dept of Radiation Oncology, University of Toronto, Toronto, Canada (Abstract # 16)
Population Health & Epidemiology

9:12 – 9:24 NUTRITIONAL ADEQUACY AND 6-MONTH SURVIVAL IN CRITICALLY ILL PATIENTS WITH PROLONGED INTENSIVE CARE UNITS LENGTH OF STAY. Xuejiao Wei, Andrew Day, Helene-Ouellette-Kuntz, and Daren Heyland. Department of Public Health Sciences, Queen’s University, Kingston, Ontario, Canada (Abstract #82)

Cardiac, Circulatory & Respiratory Sciences

9:24 – 9:36 CYSTEINYL LEUKOTRIENE RECEPTOR 2 (CYSLT₂R)-MEDIATED VASCULAR PERMEABILITY AND ISCHEMIA/REPERFUSION INJURY. Nathan C. Ni¹, Laurel L. Ballantyne¹, Jeffrey D. Mewburn², Colin D. Funk¹ ¹Department of Biomedical and Molecular Sciences and ²Cancer Research Institute, Queen’s University, Kingston, Ontario, Canada (Abstract #35)

Neuroscience Research

9:36 – 9:48 ASSESSING MEMORY IN AN ALDEHYDE DEHYDROGENASE 2 KNOCKOUT MODEL OF ALZHEIMER’S DISEASE. Ahmed Elharram, Yohan D’Souza and Brian Bennett. Department of Biomedical and Molecular Sciences, Queen’s University, Kingston, Ontario, Canada (Abstract #70)

Gastrointestinal Research

9:48 – 10:00 MODULATING THE GUT MICROBIOTA WITH A SYNTHETIC STOOL “MET-1”: PROTECTIVE EFFECTS IN AN ANIMAL MODEL OF ANTIBIOTIC ASSOCIATED COLITIS. Sarah Martz¹, Curtis Noordhof¹, Shu-Mei He¹, Zhilin Chen¹, David Hurlbut³, Emma Allen-Vercoe⁴, Elaine O. Petrof¹, ² ¹Department of Medicine, GI Diseases Research Unit, Queen’s University, Kingston, Ontario, Canada ²Department of Biomedical and Molecular Sciences, Queen’s University, Kingston, Ontario, Canada ³Department of Pathology and Molecular Medicine; Queen’s University, Kingston, Ontario, Canada ⁴Department of Molecular and Cellular Biology; University of Guelph; Guelph, ON Canada (Abstract #44)

Drug Metabolism & Toxicology

10:00 – 10:12 EXAMINING THE ROLE OF REACTIVE OXYGEN SPECIES AND P38-MAPK IN BENZOQUINONE INDUCED NF-KB ACTIVITY INCREASES IN HD-3 CELLS. Stokes, S.¹ and Winn, L.M.¹² ¹Department of Biomedical and Molecular Sciences, ²School of Environmental Studies, Queen’s University, Kingston, Ontario, Canada (Abstract #40)
10:12 – 10:24  ECHOCARDIOGRAPHIC ANALYSES OF PREGNANCIES IN PLACENTAL GROWTH FACTOR KNOCKOUT MICE. Kristiina L. Aasa, Phil Wong, Nicole Ventura, M. Yat Tse, Stephen C. Pang, B. Anne Croy. Department of Biomedical and Molecular Sciences, Queen’s University, Kingston, Ontario, Canada (Abstract #103)

10:30 – 12:00  A.M. Poster Presentations (Author Attendance) and Coffee Break

12:00 – 12:45  Lunch, A.M. poster tear-down, P.M. poster set-up (Odd Numbered Abstracts)

12:45 – 2:15  P.M. Poster Presentations (Author Attendance), Tear-down

Oral Presentations

Chair: Dr. Donald Maurice

Cardiac, Circulatory & Respiratory Sciences

2:15 – 2:27  THE PATHOPHYSIOLOGY OF AORTIC CALCIFICATION IN AN IN VITRO MODEL: THE ROLE OF MINERAL IMBALANCE. Navid Shobeiri, Kim Laverty, Julie Cruanes, Rachel M Holden, Michael A Adams. Department of Biomedical and Molecular Sciences, Queen’s University, Kingston, Ontario, Canada (Abstract #37)

Cancer Research & Therapy

2:27 – 2:39  ENDOPHILIN II PROMOTES METASTASIS OF TRIPLE NEGATIVE BREAST CANCERS IN MICE. Tomas Baldassarre, Jalna Meens, and Andrew Craig. 1 1Department of Biomedical and Molecular Sciences, Queen’s University 2Division of Cancer Biology & Genetics, Cancer Research Institute, Queen’s University, Kingston, Ontario, Canada (Abstract #17)

Neuroscience Research

2:39 – 2:51  FRONTAL LOBE EEG RECORDED DURING THE PERFORMANCE OF SACCADIC EYE MOVEMENT TASKS IN CHILDREN WITH FASD. K.S. Hemington; J.N. Reynolds. Centre for Neuroscience Studies, Queen’s University, Kingston, Ontario, Canada (Abstract #66)
Population Health & Epidemiology

2:51 – 3:03  RECREATIONAL USE OF PRESCRIPTION MEDICATIONS AMONG CANADIAN ADOLESCENTS: AN EQUITY ANALYSIS. Ariel Pulver, Colleen Davison, & William Pickett. Department of Public Health Sciences, Queen’s University, Kingston, Ontario, Canada (Abstract #80)

Rehabilitation Science

3:03 – 3:15  AGE-RELATED DIFFERENCES IN VISUAL-VESTIBULAR INTERACTIONS TO MAINTAIN POSTURAL CONTROL DURING THE TASK OF SIT-TO-STAND. Grace (Kai Yan) Lui, M.Sc.(c), & Nandini Deshpande. School of Rehabilitation Therapy, Queen’s University, Kingston, Ontario, Canada (Abstract #74)

Protein Structure & Function

3:15 – 3:27  CHARACTERIZATION OF TWO WbwC β1,3-GALACTOSYLTRANSFERASES FROM ENTEROHEMORRHAGIC ESCHERICHIA COLI O104 AND O5. Diana Czuchry¹, Shuo Wang¹, Yin Gao¹, Jason Z Vlahakis², Bin Liu³, Walter A. Szarek², Lei Wang³, and Inka Brockhausen¹ ¹Department of Biomedical and Molecular Sciences, Queens University, Kingston, Ontario, Canada; ²Department of Chemistry, Queen’s University, Kingston, Ontario, Canada; ³TEDA School of Biological Sciences and Biotechnology, Nankai University, Tianjin, China (Abstract #91)

Gastrointestinal Research

3:27 – 3:39  SELECTIVE EFFECTS OF JNK SIGNALLING ON GDNF-INDUCED AXON OUTGROWTH OF MYENTERIC NEURONS IN VITRO. Ralph T.T. Yeung and Michael G. Blennerhassett. GI Diseases Research Unit, Department of Medicine, Queen’s University, Kingston, Ontario, Canada (Abstract #43)

3:45 – 4:15  **Keynote Speaker**
Dr. Paula James  
Departments of Medicine and Pathology & Molecular Medicine  
"Why consider a research career? Or, why I pay attention to bleeding."

4:30 – 6:30  **Reception**  
Cash Bar/ Non-Alcoholic Punch  
Hors d’oeuvres
**Poster Presentations**

**ARTHRITIS AND CLINICAL MECHANICS**

A NOVEL EMBALMING TECHNIQUE PRESERVES CADAVERIC WRIST BIOMECHANICS OVER EXTENDED PERIODS OF TIME. Craig B. Casier, Andrew W.L. Dickinson, Ron A. Easteal, Rick W. Sellens, Jessica Clark. Department of Biomedical and Molecular Sciences, Queen’s University, Kingston, Ontario, Canada (Abstract #1)

PERK TUTOR IMPROVES ULTRASOUND-GUIDED FACET JOINT INJECTION TRAINING. Mattea Welch, Eric Moult, Tamas Ungi, Robert McGraw, Gabor Fichtinger. 1Laboratory for Percutaneous Surgery, School of Computing, Queen’s University, Kingston, ON 2School of Medicine, Queen’s University, Kingston, ON (Abstract #2)

DOES IMPLANT ADAPTABILITY AFFECT FUNCTIONAL AND RADIOGRAPHIC OUTCOME FOLLOWING SHOULDER ARTHROPLASTY. Arora D, Bicknell RT Division of Orthopaedic Surgery, Department of Surgery, Kingston General Hospital, and Queen’s University, Kingston, Ontario, Canada (Abstract #3)

**CANCER RESEARCH & THERAPY**

THE ROLE OF THE EPITHELIAL TO MESENCHYMAL TRANSITION IN AGGRESSIVE TUMOUR PHENOTYPES. Alexandria Haslehurst, Madhuri Koti, Ricardo Vidal, Jeremy Squire, Harriet Feilotter and Paul Park. Department of Pathology and Molecular Medicine, Queen’s University, Kingston ON, Canada (Abstract #4)

ELUCIDATION OF MULTIPLE INTERACTIONS BETWEEN THE ONCOGENIC TRANSCRIPTION FACTOR E2A-PBX1 AND THE TRANSCRIPTIONAL CO-ACTIVATOR CBP/P300. Alyssa C. Kirlin, David N. Langelaan, Christopher M. Denis, Seth Chitayat, George S. Baillie, David P. LeBrun, Steven P. Smith. 1 Department of Biomedical and Molecular Sciences, Queen’s University 2 Department of Biochemistry and Molecular Biology, University of Glasgow 3 Department of Pathology and Molecular Medicine, Queen’s University (Abstract #5)

LOSS OF PPARγ EXPRESSION IN MAMMARY SECRETORY EPITHELIAL CELLS CREATES A PRO-BREAST TUMOURIGENIC ENVIRONMENT. Apostoli, A, Skelhorne-Gross, G, Rubino, R, Schneider, M, SenGupta, S and Nicol, C. 1Pathology & Molecular Medicine; 2Division of Cancer Biology & Genetics, Cancer Research Institute, Queen’s University, Kingston, ON, Canada (Abstract # 6)

PROCOAGULANT PROPERTIES OF PROSTATE CANCER CELL LINES. Barbara Sterniczuk, Kathryn Corscadden, Spencer Barr, Maha Othman. Department of Biomedical and Molecular Sciences, Queen’s University, Kingston, Ontario, Canada (Abstract # 7)

A TIME COURSE OF EFFECTS ON IN VITRO NUCLEOTIDE EXCISION REPAIR ACTIVITY AFTER TREATMENT WITH THE TOBACCO SPECIFIC CARCINOGEN 4-(METHYLNITROSAMINO)-1-(3-PYRIDYL)-1-BUTANONE. Christopher M. Harris and Thomas E. Massey. Department of Biomedical and Molecular Sciences, Queen’s University, Kingston, Ontario, Canada (Abstract # 8)
DISRUPTION OF PPARγ IN STROMAL ADIPOCYTES INCREASES TUMOURIGENIC RISK. Skelhorne-Gross, G1, Apostoli, A1, Rubino, R2, Schneider M1, SenGupta, S1, & Nicol, C1,2 1 Dept. of Pathology & Molecular Medicine; 2 Division of Cancer Biology & Genetics, CRI, Queen’s University, Kingston, ON, Canada (Abstract # 9)

GENETIC SUPPRESSION OF STRESS SENSITIVITY IN SSP1 (CAMKK) IN SCHIZOSACCHAROMYCES POMBE. Hussain A. Al Dandan and Paul Young. Department of Biology, Queen’s University Kingston, Ontario, Canada (Abstract # 10)

CHARACTERIZATION OF THE FUNCTIONAL ROLES OF RET ISOFORMS IN BREAST CANCER. Piriya Yoganathan(1,2), Ami Wang(2), Eric Lian(1,2), Keyue Ding(3), Victor A. Tron(2), Lois M. Mulligan(1,2) Cancer Biology & Genetics Division, Queen’s Cancer Research Institute(1), Department of Pathology and Molecular Medicine(2), Queen’s University; National Cancer Institute of Canada Clinical Trials Group(3), Kingston, Ontario (Abstract # 11)

IDENTIFICATION OF GENOMIC BINDING SITES AND TRANSCRIPTIONAL TARGETS OF THE LEUKEMOGENIC FUSION PROTEIN E2A-PBX1 USING NEXT-GENERATION SEQUENCING AND BIOINFORMATICS. Kyster K. Nanan, Mathieu Lupien, and David P. LeBrun. Department of Pathology and Molecular Medicine, Queen’s University, Kingston, ON (Abstract # 12)

A MECHANISM OF NITRIC OXIDE-MEDIATED INHIBITION OF HYPOXIC RESPONSES IN TUMOUR CELLS. Judy Kim, Ivraym Barosum, Spencer Barr and Charles H. Graham. Department of Biomedical and Molecular Sciences, Queen’s University, Kingston, ON (Abstract # 13)

CADHERIN-11 FUNCTION IS REQUIRED FOR FULL NEOPLASTIC TRANSFORMATION BY VSRC. Stephanie Guy, Mulu Geletu, Rozanne Arulanandam, and Leda Raptis. Department of Pathology and Molecular Medicine, Queen’s University, Kingston, ON, Canada (Abstract # 14)

CONSERVED CDC2 PHOSPHORYLATION SITES IN SCHIZOSACCHAROMYCES POMBE CDC25 TYROSINE PHOSPHATASE. Stephanie Stobbe and Paul G. Young. Department of Biology, Queen’s University, Kingston Ontario Canada (Abstract # 15)

SER77 IN NA+/H+ EXCHANGER REGULATORY FACTOR 1 (NHERF1) PLAYS A CRITICAL ROLE IN MEMBRANE TRAFFICKING OF MULTIDRUG RESISTANCE PROTEIN 4 (MRP4). Yousef I. Hassan, Md. Tozammel Hoque, and Susan P. C. Cole. Department of Pathology & Molecular Medicine, and Division of Cancer Biology & Genetics, Cancer Research Institute, Queen’s University, Kingston, ON Canada (Abstract # 18)

CELL-SURFACE MRP4 (ABCC4) LEVELS ARE DOWN-REGULATED BY THE NH2-TRUNCATED CORTBP1 ISOFORM OF SHANK2. M. Fahad Miah and Susan P.C. Cole. Department of Pathology & Molecular Medicine, and Division of Cancer Biology & Genetics, Cancer Research Institute, Queen’s University, Kingston, ON Canada (Abstract # 19)
BRUGADA PHENOCOPY – FRONTIERS OF A NEW DIAGNOSIS. Daniel D. Anselm, MD, Adrian Baranchuk, MD. Department of Cardiology, Electrophysiology and Pacing, Queen’s University, Kingston General Hospital, Kingston, Ontario, Canada (Abstract # 20)

THE EFFECTS OF A LOW-INTENSITY WALKING INTERVENTION ON CIRCULATORY ADAPTATIONS AND PERCEIVED WALKING ABILITY IN PATIENTS WITH PERIPHERAL VASCULAR DISEASE (PVD). Brenner, I., Brown, C.A., Tranmer, J., Zelt, D., and Brown, P. School of Nursing and Dept. of Vascular Surgery, Queen’s University, Kingston, Ontario, Canada (Abstract # 21)


GTPASE RAB11 REGULATES THE TRAFFICKING OF THE HUMAN ETHER-A-GO-GO-RELATED GENE (HERG) CHANNEL. Jeffery Chen, Jun Guo, Wentao Li and Shetuan Zhang. Department of Biomedical and Molecular Sciences, Queen’s University, Kingston, Ontario, Canada (Abstract # 23)

HIGH DIETARY VITAMIN K1 ATTENUATES THE DEVELOPMENT OF VASCULAR CALCIFICATION IN EXPERIMENTAL CHRONIC KIDNEY DISEASE. Kristin M McCabe, Sarah L Booth, Xueyan Fu, Rachel M Holden, Michael A Adams. Department of Biomedical & Molecular Sciences, Queen’s University, Kingston, Ontario, Canada (Abstract # 24)

CARDIAC HYPERTROPY DURING PREGNANCY AND POST-PARTUM: ROLE OF NATRIURETIC PEPTIDE SYSTEM (NPS). Logan Richard, Terry Y Li, Nicole M Ventura, Philip G Wong, M Yat Tse and Stephen C Pang. Department of Biomedical & Molecular Sciences, Queen’s University, Kingston, Ontario, Canada (Abstract # 25)

ACUTE CHANGES IN DNA METHYLATION IN ALLERGIC PARTICIPANTS FOLLOWING EXPOSURE TO ALLERGEN IN THE ENVIRONMENTAL EXPOSURE UNIT (EEU). Michelle L. North¹, Lucia Lam², Sarah M. A. Neumann², Lisa M. Steacy³, Alexander Gregor¹, Michael S. Kobor²,⁴, and Anne K. Ellis¹,³ ¹Department of Biomedical & Molecular Sciences and Division of Allergy & Immunology, Department of Medicine, Queen’s University, Kingston, ON. ²Child & Family Research Institute and Centre for Molecular Medicine & Therapeutics, Vancouver, BC. ³Allergy Research Unit, Kingston General Hospital, Kingston, ON. ⁴Department of Medical Genetics, University of British Columbia, Vancouver, BC (Abstract # 26)

SEVERAL PDE4-FAMILY ENZYMES DIFFERENTIALLY REGULATE EPAC1-MEDIATED ACTIONS DURING VEC TUBULE FORMATION. Miłosz Kaczmarek, Paulina B Brzezińska, Maria B Umaña and Donald H Maurice. Department of Biomedical and Molecular Sciences, Queen’s University, Kingston, Ontario, Canada (Abstract # 27)
VIDEO MICROSCOPY DETECTION OF OYSTER SPAT HEART RATE (HR): ACCLIMATION TEMPERATURE ALTERS HR RESPONSE TO ACUTE TEMPERATURE CHANGE. Nicolle J Domnik\textsuperscript{1}, Elias T Polymeropoulos\textsuperscript{3}, Nick G Elliott\textsuperscript{4}, Peter B Frappell\textsuperscript{3}, John T Fisher\textsuperscript{1,2} \textsuperscript{1}Biomedical and Molecular Sciences, \textsuperscript{2}Medicine and Pediatrics, Queen’s University, Kingston, ON, Canada; \textsuperscript{3}Zoology, University of Tasmania, Hobart, TAS, Australia; \textsuperscript{4}Commonwealth Science and Industry Research Organization: Food Futures Flagship, Hobart, TAS, Australia (Abstract # 28)

EPAC1 CONTROLS VASCULAR ENDOTHELIAL CELL PERMEABILITY AND THE ADAPTATION OF THESE CELLS TO FLUID SHEAR STRESS. Sarah N. Rampersad, Miłosz Kaczmarek and Donald H. Maurice. Departments of Biomedical & Molecular Sciences and Pathology & Molecular Medicine, Queen’s University, Kingston, ON, Canada (Abstract # 29)

PHARMACOLOGICAL INHIBITION OR RNAI-BASED KNOCKDOWN OF SELECTED CYCLIC NUCLEOTIDE PHOSPHODIESTERASES ALLOWS DIFFERENTIAL CONTROL OF ARTERIAL MYOCYTE MIGRATION. Paulina Brzezinska\textsuperscript{1}, Tammy Truong\textsuperscript{2}, Donald Maurice \textsuperscript{1, 2}, Departments of Biomedical & Molecular Sciences\textsuperscript{1} and Pathology & Molecular Medicine\textsuperscript{2}, Queen’s University, Kingston, ON, Canada (Abstract # 30)

SELECTIVE TETHERING OF MURAL CELL PHOSPHODIESTERASE 4D VARIANTS ALLOWS SPATIAL RESOLUTION OF CAMP-MEDIATED EVENTS REQUIRED FOR ADHESION AND MIGRATION. Tammy K. Truong\textsuperscript{1}, Silja I. Freitag\textsuperscript{1} and Donald H. Maurice\textsuperscript{1, 2}. Departments of \textsuperscript{1}Pathology & Molecular Medicine and \textsuperscript{2}Biomedical & Molecular Sciences, Queen’s University, Kingston, ON, Canada (Abstract # 31)

CORRELATION BETWEEN THE EXPRESSIONS OF THE NATRIURETIC PEPTIDE SYSTEM AND MORPHOLOGICAL CHANGES IN MOUSE HEART DURING PRENATAL DEVELOPMENT. Terry Y. Li, M. Yat Tse, Nicole M. Ventura, Amer M. Johri, B. Anne Croy, Conrad W. Reifel and Stephen C. Pang. Department of Biomedical and Molecular Sciences, Queen’s University, Kingston, Ontario, Canada (Abstract # 32)

MOLECULAR MECHANISMS OF ISCHEMIA/HYPOXIA-INDUCED CARDIAC ARRHYTHMIAS. WonJu Song, Shawn Lamothe, Tingzhong Wang, Erik van Oosten, Adrian Baranchuk and Shetuan Zhang. Department of Biomedical and Molecular Sciences, Queen’s University Kingston, Ontario Canada (Abstract # 33)

OMEGA 3 POLYUNSATURATED FATTY ACIDS MODULATE CYCLOOXYGENASE-2 INDUCTION VIA INTERACTIONS WITH GPR120. Xinzhi Li\textsuperscript{1}, Ying Yu\textsuperscript{2}, Colin D. Funk\textsuperscript{1}. \textsuperscript{1}Department of Biomedical and Molecular Sciences, Queen’s University, Kingston, ON, \textsuperscript{2}Institute for Nutritional Sciences, Chinese Academy of Sciences, Shanghai 200031, China (Abstract # 34)

MOLECULAR MECHANISMS FOR FEVER-PRECIPITATED LONG QT SYNDROME. Yan Zhao, Jennifer Kiochopolos, Tingzhong Wang, Jun Guo, Tonghua Yang, Wentao Li and Shetuan Zhang. Department of Biomedical and Molecular Science, Queen’s University (Abstract # 36)
DRUG METABOLISM & TOXICOLOGY

REPAIR OF DNA STRAND BREAKS FOLLOWING VALPROIC ACID EXPOSURE IN PREGNANT PKZ1 MICE. Christina Lamparter and Louise Winn. Department of Biomedical and Molecular Sciences, Graduate Program of Pharmacology and Toxicology, Queen's University, Kingston, Ontario (Abstract # 38)

INDUCTION OF NADPH DEHYDROGENASE QUINONE 1 (NQO1) BY SULFORAPHANE IN NON-PREGNANT AND PREGNANT CD-1 MICE. Nikki A. Philbrook1 and Louise M. Winn1,2 1Department of Biomedical and Molecular Sciences, Graduate Program: Pharmacology and Toxicology, Queen’s (Abstract # 39)

GASTROINTESTINAL RESEARCH

METABOLIC INHIBITION CAUSES SELECTIVE DEATH OF ENTERIC NEURONS. J. E. Kearon, S. Lourensenn, M. G. Blennerhassett. GI Diseases Research Unit, Department of Medicine, Queen’s University, Kingston, Ontario, Canada (Abstract # 41)

MICROBIAL ECOSYSTEM THERAPEUTIC-1 TREATMENT FOLLOWING ORAL ANTIBIOTICS PROTECTS MICE DURING DEVELOPMENT OF ACUTE DSS-INDUCED COLITIS. Sean Munoz1, 2 Curtis Noordhof1, Shu-Mei He1, Zhilin Chen1, Emma Allen-Vercoe3, Elaine O. Petrof1, 2 1Department of Medicine, GI Diseases Research Unit, Queen’s University, Kingston, Ontario, Canada 2Department of Biomedical and Molecular Sciences, Queen’s University, Kingston, Ontario, Canada 3Department of Molecular and Cellular Biology; University of Guelph; Guelph, ON Canada (Abstract # 42)

HEALTH POLICY & SERVICES

ENVIRONMENTAL SCAN OF PROGRAMS FOR FASD IN EASTERN ONTARIO IN 2012. Naumann, D. N.1, Reynolds, J.N.2 1School of Rehabilitation Therapy, Queen’s University, Kingston, ON, Canada. 2Department of Biomedical and Molecular Sciences, Queen’s University, Kingston, ON, Canada (Abstract # 45)

USING THE CANMEDS FRAMEWORK TO DESIGN AN INTERPROFESSIONAL MODEL FOR CONTINUING HEALTH EDUCATION (CHE). Smith, K.M.1, Naumann, D. N.2, Donnelly, C.2, Dalgarno, N.3, & McDiarmid, L.1 1Office of Continuing Professional Development, Queen’s University, Kingston, ON, Canada. 2School of Rehabilitation Therapy, Queen’s University, Kingston, ON, Canada. 3Faculty of Education, Queen’s University, Kingston, ON, Canada (Abstract # 46)

PROMOTING AWARENESS OF BEST PRACTICES FOR FETAL ALCOHOL SPECTRUM DISORDER (FASD) IN PRIMARY CARE THROUGH KNOWLEDGE TRANSLATION: THE ACTIONABLE NUGGETS™ STRATEGY. Naumann, D. N.1, McColl, M.A.1, Reynolds, J.N.2, & Smith, K.M3 1School of Rehabilitation Therapy, Queen’s University, Kingston, ON, Canada. 2Department of Biomedical and Molecular Sciences, Queen’s University, Kingston, ON, Canada. 3Office of Continuing Professional Development, Queen’s University, Kingston, ON, Canada (Abstract # 47)
EVIDENCE BASED DIAGNOSTICS: A COMPREHENSIVE ANALYSIS OF CLINICAL DIAGNOSTIC PRACTICES APPLIED TO HEREDITARY BREAST CANCER PATIENTS. Ricardo Vidal, Mikhail Nediak, Yuri Levin, Scott Davey, and Harriet Feilotter. Department of Pathology and Molecular Medicine, Queen's University, Kingston, Ontario Canada (Abstract # 48)

HEALTH PROMOTION & DISEASE PREVENTION

COMPARATIVE EXPRESSION PROFILING OF 50-60 YEAR OLD MALE COMPETITIVE ATHLETES AND LEAN HEALTHY INDIVIDUALS. Brittany A Edgett1, Kamalika Mukherjee2, Tim St. Amand2, Colin D Funk2, Brendon J Gurd1. School of Kinesiology and Health Studies, Department of Biomedical and Molecular Sciences, Queen's University, Kingston, ON, Canada (Abstract # 49)

MICROBIOLOGY & INFECTIOUS DISEASE

ESTIMATION OF GLOMERULAR FILTRATION RATE USING NOVEL SERUM BIOMARKERS CYSTATIN C AND BETA-TRACE PROTEIN IN HIV PATIENTS. Rumman A1, Gee K2, White CA3, Wobeser WL1,3 1Division of Infectious Diseases, Department of Medicine, Queen’s University; 2Division of Nephrology, Department of Medicine, Queen’s University; 3Division of Biomedical and Molecular Sciences, Queen’s University, Kingston, Ontario, Canada (Abstract # 50)

REGULATION OF IL-23 EXPRESSION BY INFLAMMASOME ACTIVATION IN CD14+ THP-1 CELLS. Chris Wynick, Carly Petes, Taylor Kain, and Katrina Gee. Department of Biomedical and Molecular Sciences, Queen’s University, Kingston, Ontario, Canada (Abstract # 51)

DELAYED SCREENING AND ADVANCED PRESENTATION OF TUBERCULOSIS IN HIV-INFECTED PRISONERS AND HOMELESS PERSONS IN A MULTI-CENTRE RUSSIAN COHORT STUDY. A Rumman1, A Sadeghi1, Z Zagdyn2, W Hopman1, D Cox3, J Pankovich3, R Rosenes3,4, C Cooper3,5, O Frolova6, G Balasanyants2 and WL Wobeser1,3 on behalf of the CIHR-CTN Collaboration on HIV in St. Petersburg. 1Division of Infectious Diseases, Department of Medicine, Queen’s University, Kingston, Ontario, Canada; 2St. Petersburg TB Research Institute, St Petersburg, Russia; 3CIHR Canadian HIV Trials Network, Vancouver, Canada; 4Canadian Treatment Action Council, Toronto, Canada; 5University of Ottawa, Ottawa, Canada; 6Federal HIV/TB Center, Moscow, Russia (Abstract # 52)

THE ROLE OF IL-27 ON ENDOTOXIN TOLERANCE IN CD14+ THP-1 CELLS. Carly Petes, Chris Wynick, and Katrina Gee. Department of Biomedical and Molecular Sciences, Queen’s University, Kingston, Ontario, Canada (Abstract # 53)

MULTIPLEX CYTOKINE ANALYSIS OF CORD BLOOD NON-ADHERENT MONONUCLEAR CELLS FROM INFANTS WITH ATTRIBUTABLE ATOPIC RISK FOLLOWING IL-5 STIMULATION. Vanessa Omana, Jenny Thiele, and Anne K. Ellis. Departments of Medicine and Biomedical & Molecular Sciences, Queen's University, Kingston, ON, Canada (Abstract # 54)
IN Volvement of Pilin-like Genes in the Type IV Pilus of Methanococcus Maripaludis. Divya B. Nair¹, Daniel Chung¹, James Schneider¹, Shin-Ichi Aizawa², Ken F. Jarrell¹. ¹Department of Biomedical and Molecular Sciences, Queen's University, Kingston, Ontario Canada ²Department of Life Sciences, Prefectural University of Hiroshima, Hiroshima 727-0023, Japan (Abstract # 55)

Spleen-Derived Macrophages Are Readily Polarized Into Pro-Inflammatory (M1) and Anti-Inflammatory (M2) States. Rylend Mulder and Sam Basta. Department of Biomedical and Molecular Sciences, Queen's University, Kingston, Ontario, Canada (Abstract # 56)

Identification of Genes Involved in the Biosynthesis of the Archaellar Glycan of Methanococcus Maripaludis. Sarah Siu and Kenneth F Jarrell. Department of Biomedical and Molecular Sciences, Queen’s University Kingston, Ontario Canada (Abstract # 57)

Identification of Genes Involved in the Biosynthesis of the Third and Fourth Sugars of the Archaeillin N-Linked Tetrascarcharide of Methanococcus Maripaludis. Yan Ding¹, Gareth Jones¹, Kaoru Uchida³, Shin-Ichi Aizawa³, Anna Robotham², Susan Logan², John Kelly², Ken Jarrell¹ ¹Department of Biomedical and Molecular Sciences, Queen’s University, Kingston, Ontario, Canada ²Institute for Biological Sciences, National Research Council, Ottawa, Ontario, Canada ³Department of Life Sciences, Prefectural University of Hiroshima, 562 Nanatsuka, Shobara, Hiroshima 727-0023, Japan (Abstract # 58)

NEUROSCIENCE RESEARCH

Assessing Children with Fetal Alcohol Spectrum Disorders Using Eye Movement Control and Diffusion Tensor Imaging. Paolozza, A.,¹ Beaulieu, C² and Reynolds, JN.¹ ¹Centre for Neuroscience Studies, Queen’s University, Kingston, ON ²Department of Biomedical Engineering, University of Alberta, Edmonton, AB T5G 0B7 (Abstract # 59)

A Distributed Functional Network Underlying Strategic Decision-Making. Ashley Parr, Brian Coe, & Michael Dorris. Centre for Neuroscience Studies, Queen’s University, Kingston, ON (Abstract # 60)

Temporally and Spatially Predictive Saccades and Their Neural Correlates. Benedict Chang, Donald Brien, Brian Coe, Doug Munoz. Centre for Neuroscience Studies, Queen’s University, Kingston, ON (Abstract # 61)

Robust Quantitative Functional Magnetic Resonance Imaging (QFMRI) of Altered Brain Activity to Investigate the Association of Traumatic Brain Injury (TBI) and Amyotrophic Lateral Sclerosis (ALS). Clarisse I. Mark¹,², Douglas P. Munoz², Ingrid Johnsrude² and G. Bruce Pike¹ ¹McConnell Brain Imaging Center, Montreal Neurological Institute, McGill University, Montreal, Quebec, Canada ²Center for Neuroscience Studies, Queen’s University, Kingston, Ontario, Canada (Abstract # 62)
EYE MOVEMENTS IN PARKINSON’S DISEASE: INSIGHTS INTO BASAL GANGLIA PATHOLOGY. Hailey McInnis, Doug Munoz, Giovanna Pari, and Don Brien. Centre for Neuroscience Studies, and Hotel Dieu Movement Disorder Clinic, Queen’s University, Kingston Ontario, Canada (Abstract # 63)

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A COMPARISON OF FIBER SPECIFIC AND WHOLE MUSCLE HOMOGENATE MARKERS OF MUSCLE ACTIVATION FOLLOWING HIT AND END EXERCISE. Trisha D Scribbans¹, Andrew S. Mitchell², Kira Vorobej ², Craig A Simpson¹, Joe Quadrilatero² and Brendon J Gurd. ¹School of Kinesiology and Health Studies, Queen’s University, Kingston, Ontario ² Department of Kinesiology, University of Waterloo, Waterloo, Ontario (Abstract # 89)

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INFLAMMATION-INDUCED FETAL GROWTH RESTRICTION IS ASSOCIATED WITH INCREASED EXPRESSION OF HYPOXIA-INDUCIBLE FACTOR (HIF-1A) AND NITROSATIVE STRESS. Arissa Sperou, Tiziana Cotechini, Shannyn K. Macdonald Goodfellow, Charles H. Graham. Department of Biomedical and Molecular Sciences, Queen’s University, Kingston, Ontario, Canada (Abstract # 98)

KEY ROLES OF UTERINE NATURAL KILLER CELLS IN EARLY PREGNANCY REVEALED BY WHOLE MOUNT IN SITU STAINING. Alexander P. Hofmann1, Scott A. Gerber2 and B. Anne Croy1 1Department of Biomedical and Molecular Sciences, Queen’s University, Kingston, ON, Canada, 2Department of Microbiology and Immunology, University of Rochester Medical Center, Rochester NY, USA (Abstract # 99)

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A NEW PROCEDURE FOR VITRIFICATION ALLOWS SUCCESSFUL IN VITRO DEVELOPMENT OF HUMAN PRIMORDIAL FOLLICLES TO PREANTRAL STAGE. Fariba Khosravi1, Robert L. Reid2, Ashraf Moini3, Farid Abolhassani4, Frederick W. K. Kan1. Departments of 1Biomedical and Molecular Sciences and 2Obstetrics and Gynecology, Queen’s University, Kingston, Ontario, Canada; Departments of 3Anatomy and 4Obstetrics and Gynecology, Medical School, Tehran University of Medical Sciences (Abstract # 101)

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RECOMBINANT HUMAN OVIDUCT-SPECIFIC GLYCOPROTEIN IN EARLY EVENTS OF FERTILIZATION. Yuewen Zhao¹, Xiaojing Yang¹, Tamer M. Said², Alfonso P. Del Valle², Frederick W. K. Kan¹. ¹Department of Biomedical and Molecular Sciences, Queen’s University, Kingston, Ontario; ²Andrology Laboratory and Reproductive Tissue Bank, The Toronto Institute for Reproductive Medicine, Toronto, Ontario (Abstract # 104)

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SPERM PAWP INDUCES FERTILIZATION BY BINDING TO TYPE I WW DOMAIN PROTEINS IN THE OOCYTE CYTOPLASM. Naazish Alladin¹, Mahmoud Aarabi¹, Gareth Hammond¹, Wei Xu¹, Young-Joo Yi², Peter Sutovsky² and Richard Oko¹. ¹Department of Biomedical and Molecular Sciences, Queen’s University, Kingston, ON; ²Department of Obstetrics and Gynecology, University of Missouri-Columbia, Columbia MO (Abstract # 106)

RECOMBINANT HAMSTER OVIDUCT-SPECIFIC GLYCOPROTEIN (rHamOVGP1) IS BIOLOGICALLY ACTIVE AND EXERTS POSITIVE EFFECTS ON SPERM FUNCTIONS. Xiaojing Yang¹, Yuewen, Zhao¹, Xiaolong Yang², Frederick W.K. Kan¹. ¹Department of Biomedical and Molecular Sciences and ²Department of Pathology and Molecular Medicine, Queen’s University, Kingston, Ontario, Canada (Abstract # 107)

SPERM-DERIVED POSTACROSOMAL WW BINDING PROTEIN (PAWP) INDUCES CALCIUM OSCILLATION AND OOCYTE ACTIVATION IN MOUSE AND HUMAN OOCYTES. Mahmoud Aarabi¹, Hanna Balakier², Naazish Alladin¹, Agata Sojecki², Peter Sutovsky³, Clifford Librach², ⁴, ⁵ and Richard Oko¹, ¹Department of Biomedical and Molecular Sciences, Queen’s University, Kingston, ON; ²CREAte Fertility Centre, Toronto, ON; ³Division of Animal Sciences, and Departments of Obstetrics, Gynecology and Women’s Health, University of Missouri, Columbia, MO; ⁴Department of Obstetrics and Gynecology, University of Toronto, Toronto, ON; ⁵Division of Reproductive Endocrinology and Infertility, Department of Obstetrics and Gynecology, Sunnybrook Health Sciences Centre, Toronto, ON (Abstract # 108)

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PREVENTION OF PLACENTAL INSUFFICIENCY IN THE TYPE 2 DIABETIC NEW-ZEALAND OBESE MICE BY PRE-PREGNANCY ADMINISTRATION OF MACROLIDE-IMMUNOSUPPRESSANT TACROLIMUS. Ahmad J. H. Albaghdadi, Melanie Hewitt, Shan-Shan Gu and Frederick W. K. Kan. Department of Biomedical and Molecular Sciences, Queen’s University, Kingston, Ontario, Canada (Abstract # 109)

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GENERATION OF AN INDUCIBLE ARGINASE-1 DEFICIENT MOUSE MODEL. Kamalika Mukherjee, Laurel L. Ballantyne, Angie Sin, Tim St. Amand, Colin D. Funk: Department of Biomedical and Molecular Sciences, Queen’s University, Kingston, ON, Canada (Abstract # 113)

THE EFFECT OF PRE-ECLAMPSIA ON EARLY POSTPARTUM CARDIAC REGULATION AND MICROVASCULAR REACTIVITY. Malia Murphy, Geoff Seaborn, Damian Redfearn and Graeme Smith. 1Departments of Biomedical and Molecular Sciences, and 2Computer Science, Queen’s University, Kingston, Ontario, Canada. Departments of 3Cardiology and 4Obstetrics and Gynaecology, Kingston General Hospital, Kingston, Ontario, Canada (Abstract # 114)

SLEEP PROBLEMS IN CHILDREN WITH A HISTORY OF EXTREME PRETERM BIRTH. F Chowdhury, B Thebaud, B Kamstra, AT Lovering, L. Henderson, C. Majaesic, I. Adatia, R. Thompson, D. Nicholas, MK Stickland, JE MacLean. 1Department of Pediatrics, Queens University, Kingston, Ontario; 2Children’s Hospital of Eastern Ontario & Ottawa Hospital Research Institute; 3Departments of Pediatrics, 4Medicine, 5Biomedical Engineering, & Women & Children Health Research Institute, 6Faculty of Medicine & Dentistry, University of Alberta; Faculty of Human Physiology, University of Oregon, Eugene, OR, USA (Abstract # 115)