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Oral Presentation Adjudicators

Cynthia Pruss, Biomedical and Molecular Sciences  
Shamini Selvarajah, Pathology and Molecular Medicine  
Clarisse Mark, Centre for Neuroscience Studies

Acknowledgments

A special thank you to Alana Korczynski and Katherine Brennan-Rowcliffe for their invaluable assistance in organizing this meeting.
The Eighteenth Annual Scientific Meeting for
Health Science Research Trainees
Faculty of Health Sciences
Queen’s University

Wednesday, June 10th, 2015

Poster Presentations in Atrium, Biosciences Complex
Oral Presentations in School of Medicine Building, Room 132A

8:00-8:45am 
Registration and A.M. Poster Set-Up (Odd Numbered Abstracts)
Biosciences Complex, Atrium

8:45-9:00am
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
School of Medicine, Room 132A

9:00 – 9:30am
Keynote Speaker
Dr. Chandrakant Tayade, DVM, Ph.D.
Associate Professor, Biomedical and Molecular Sciences
‘Targeting Immune-Angiogenesis Axis in Endometriosis’

Oral Presentations – Session 1
Chair: Dr. Katrina Gee

9:30 – 9:42am
CRISPR/CAS9-MEDIATED GENE EDITING IN ARGINASE-1 DEFICIENT HUMAN INDUCED PLURIPOTENT STEM CELLS. Garrett N. Baron, Yuan Yan Sin, Phillipe Price, Laurel Ballantyne, Crystal McCracken and Colin D. Funk. Department of Biomedical and Molecular Sciences, Queen’s University Kingston, Ontario Canada. (Abstract #1)
Cancer Research and Therapy

9:42 – 9:54am  THE PD-1/PD-L1 AXIS INDUCES RESISTANCE TO CHEMOTHERAPEUTIC AGENTS. Madison Black¹, and C.H. Graham¹. ¹ Department of Biomedical and Molecular Sciences, Queen’s University, Kingston, ON. (Abstract #9)

Rehabilitation Science

9:54 – 10:06am  USING TELEREHABILITATION TO SUPPORT SELF-MANAGEMENT INTERVENTIONS: THE EXPERIENCES OF OCCUPATIONAL THERAPISTS AND PEOPLE WITH MULTIPLE SCLEROSIS. Afolasade Farotimi, ¹Marcia Finlayson, ¹ & Matthew Plow ². ¹ School of Rehabilitation Therapy, Queen’s University, Kingston, Ontario, Canada; ² Frances Payne Bolton School of Nursing, Case Western Reserve University, USA. (Abstract #77)

Therapeutics and Toxicology

10:06 – 10:18am  INVESTIGATING CELLULAR EFFECTS OF BENZOQUINONE EXPOSURE AND THE POTENTIAL FOR SULFORAPHANE TO BE USED AS A PROTECTIVE AGENT IN CULTURED CD-1 MOUSE FETAL LIVER CELLS. Nikki Philbrook¹ and Louise Winn¹,². ¹ Department of Biomedical and Molecular Sciences, Graduate Program in Pharmacology and Toxicology, Queen’s University, Kingston, ON. ² School of Environmental Studies, Queen’s University, Kingston, ON. (Abstract #94)

Women’s and Children’s Health Research

10:18 – 10:30am  PERINATAL FACTORS AFFECTING FOXP3 DNA METHYLATION AND EXPRESSION IN UMBILICAL CORD BLOOD TREGS AND MONONUCLEAR CELLS. Elizabeth Lee¹, Michelle North¹,², Vanessa Omana¹, Julie MacIsaac³, Jeffrey Brook⁴, Meaghan J. Jones³,⁵, Michael Kobor ³,⁵, and Anne K. Ellis ¹,². ¹ Depts of Medicine and Biomedical & Molecular Science, Queen's University. 2) Allergy Research Unit, Kingston General Hospital. 3) Centre for Molecular Medicine & Therapeutics, Child & Family Research Institute, Vancouver. 4) Environment Canada, Toronto. 5) Dept of Medical Genetics, University of British Columbia, Vancouver. (Abstract #97)

10:30 - 10:45am  Coffee Break

10:45am - 12:15pm  A.M. Poster Presentations (Author Attendance)

12:15 - 1:00pm  Lunch, A.M. poster tear-down, P.M. poster set-up (Even Numbered Abstracts)

1:00 - 2:30pm  P.M. Poster Presentations (Author Attendance), Tear-down
Oral Presentations – Session 2

Chair: Dr. Charles Graham

Cancer Research and Therapy

2:30 – 2:42pm REAL-TIME ELECTROMAGNETIC NAVIGATION IN BREAST-CONSERVING SURGERY: PHANTOM STUDY, CADAVER STUDY AND PILOT STUDY ON PALPABLE TUMORS. G. Gauvin1, T. Ungi2, C.T. Yeo1,2, G. Fichtinger2, J. Rudan1, C.J. Engel1. 1Department of Surgery, Queen’s University. 2School of Computing, Queen’s University. (Abstract #13)

Cardiac, Circulatory, and Respiratory Sciences

2:42 – 2:54pm MURINE PULMONARY SLOWLY-ADAPTING RECEPTORS (SARS): PUTATIVE LINKS TO NEUROEPITHELIAL BODY (NEB) HYPOXIA CHEMORECEPTION AND THE CALCIUM SENSING RECEPTOR (CASK). Nicolle J Domnik1, Sandra G Vincent1, R John MacLeod1,2, Ernest Cutz3,4, John T Fisher1,2. 1 Dept. Biomedical and Molecular Sciences, Queen’s University, Kingston, Canada. 2 Dept. Medicine, Queen’s University, Kingston, Canada. 3 Div. Pathology, Dept. Paediatric Medicine, The Hospital for Sick Children, Toronto, Canada. 4 Dept. Laboratory Medicine and Pathobiology, University of Toronto, Toronto, Canada. (Abstract #29)

Health Policy, Population Health, and Epidemiology

2:54 – 3:06pm EVALUATING THE ROLES OF ADOLESCENT RISK BEHAVIOUR AND SCHOOL SOCIAL ENVIRONMENTS ON THE OCCURANCE OF SCHOOL INJURIES. Jonathan Kwong, Don Klinger, and William Pickett. Department of Public Health Sciences, Faculty of Education, Queen’s University Kingston, Ontario Canada. (Abstract #40)

Inflammation, Infection, and Immunity

3:06 – 3:18pm THE ROLE OF MAST CELL IN CHRONIC MULTIFOCAL OSTEOMYELITIS. Jae Hoon Peter Lee1, Stephanie Young1, Namit Sharma1, Violeta Chitu2, E. Richard Stanley2 and Andrew WB. Craig1. 1Biomedical and Molecular Sciences, Queen's University; 2Developmental and Molecular Biology, Albert Einstein Col. of Med. (Abstract #52)

3:20 – 3:45pm Coffee Break
Oral Presentations – Session 3

Neuroscience Research

3:45 – 3:57pm  POOR CEREBRAL OXYGENATION DURING CRITICAL ILLNESS IS ASSOCIATED WITH ACUTE NEUROLOGICAL DYSFUNCTION. Mr. Michael Wood, Mr. Andy Song, Dr. David Maslove, Dr. Cathy Ferri, PhD, Dr. Daniel Howes, MD, Dr. John Muscedere, MD, and Dr. J. Gordon Boyd, MD, PhD. Centre for Neuroscience Studies, Queen’s University, Kingston, ON, Canada. (Abstract #69)

Reproductive and Sexual Function

3:57 – 4:09pm  PLASMINOGEN IMPROVES IVF BY INTERACTIONS WITH INNER ACROSONAL MEMBRANE-BOUND MMP2 AND SAMP14. Marvin Ferrer, Wei Xu, Richard J. Oko. Department of Biomedical and Molecular Sciences, Queen’s University, Kingston, Ontario, Canada. (Abstract #83)

Cancer Research and Therapy

4:09 – 4:21pm  EZRIN AS A POTENTIAL ANTI-METASTATIC TARGET IN TREATMENT OF INVASIVE BREAST CANCER. Abdi Ghaffari¹,³, Victoria Hoskin¹,³, Peter Greer¹,³, Sandip SenGupta¹, Yolanda Madarnas², Bruce Elliott¹,³. ¹Department of Pathology and Molecular Medicine; ²Department of Oncology; ³Queen’s Cancer Research Institute, Kingston, ON, Canada. (Abstract #14)

Rehabilitation Science

4:21 – 4:33pm  CRITICAL FALLS AMONG PEOPLE AGING WITH MULTIPLE SCLEROSIS: GETTING UP AFTER A FALL. Etienne J. Bisson¹, Elizabeth. W. Peterson², & Marcia Finlayson¹. ¹School of Rehabilitation Therapy, Queen's University Kingston, Ontario Canada. ²Department of Occupational Therapy, University of Illinois at Chicago, Chicago, IL. (Abstract #75)

4:35 – 4:45pm  Awards and Concluding Remarks

5:00 – 7:00pm  Reception at the Grad Club
162 Barrie Street
Cash Bar/ Non-Alcoholic Punch
Hot hors d’oeuvres
NOVEL METHOD TO IMPROVE RADIOLOGIST AGREEMENT IN INTERPRETATION OF SERIAL CHEST RADIOGRAPHS IN THE ICU. Asad A. Naqvî, Denise A. Castro, David Manson, Michael P. Flavin, Elizabeth VanDenKerkhof, Donald Soboleski. 1 Department of Diagnostic Radiology, Queen’s University, Kingston, ON, CA, 2 Department of Diagnostic Imaging, University of Toronto, ON, CA, 3 School of Nursing, Queen’s University, Kingston, ON, CA. (Abstract #2)

CRISPR/CAS9-MEDIATED GENE EDITING IN ARGINASE-1 DEFICIENT MOUSE INDUCED PLURIPOTENT STEM CELLS. Phillipe Price, Yuan Yan Sin, Laurel Ballantyne, Crystal McCracken, Colin D. Funk. Department of Biomedical and Molecular Sciences, Queen’s University, Kingston, Ontario, Canada. (Abstract #3)

CRISPR/CAS9 GENOME EDITING OF THE ARG1 LOCUS AS A NOVEL THERAPEUTIC MODALITY FOR ARGINASE-1 DEFICIENCY. Yuan Yan Sin, Christopher Richmond, Crystal McCracken, Colin D. Funk. (Abstract #4)

VIRTUAL REALITY VERSUS BENCH TOP SIMULATION IN THE ACQUISITION OF ARTHROSCOPIC SKILL: A RANDOMIZED CONTROL TRIAL. Daniel Banaszek, M.D., Daniel You, B.Sc., Justues Chang, M.D., Michael Pickell, M.D., Davide Bardana, M.D., FRCSC, Dan Borschneck, M.D., FRCSC. (Abstract #5)

AN IMMUNE MODULATORY ROLE FOR THE FES PROTEIN TYROSINE KINASE. Faizah Alotaibi, Connie Zhang, Sam Basta and Peter A. Greer. Department of Pathology and Molecular Medicine, Biomedical and Molecular Sciences, Queen’s University, Kingston, Ontario, Canada. (Abstract #6)

ROLE OF STAT1 IN TUMOUR CD8+ T LYMPHOCYTE INFILTRATION AND DIFFERENTIAL THERAPEUTIC RESPONSE IN HIGH GRADE SEROUS OVARIAN CANCER. Katrina K. Au, Liliane Meunier, Juliana Josahkian, Peter Truesdell, Andrew Craig, Julie- Ann Francis, Vickie Martin, Timothy Childs, Jeremy Squire, Anne-Marie Mes-Masson, Madhuri Koti. (Abstract #7)
DEFINING MOLECULAR MECHANISMS LINKING ENDOPHILIN A2 TO METASTASIS IN HUMAN BREAST CANCER MODELS. Tomas Baldassarre\textsuperscript{1,2}, Kathleen Watt\textsuperscript{1,2}, Peter Truesdell\textsuperscript{1,2}, Mark Schneider\textsuperscript{3}, Sandip Sengupta\textsuperscript{3}, and Andrew WB Craig\textsuperscript{1,2}. \textsuperscript{1}Department of Biomedical and Molecular Sciences; \textsuperscript{2}Cancer Biology & Genetics Division, Cancer Research Institute; \textsuperscript{3}Department of Pathology & Molecular Medicine. (Abstract #8)

DISTINCT TEMPORAL REGULATION OF RET ISOFORM INTERNALIZATION: ROLES OF CLATHRIN AND AP2. Mathieu J.F. Crupi\textsuperscript{1}, Piriya Yoganathan\textsuperscript{1}, Leslie N. Bone\textsuperscript{2}, Eric Lian\textsuperscript{1}, Andrew Fetz\textsuperscript{1}, Costin N. Antonescu\textsuperscript{2} and Lois M. Mulligan\textsuperscript{1}. \textsuperscript{1}Department of Pathology and Molecular Medicine, and Division of Cancer Biology and Genetics, Queen’s Cancer Research Institute, Queen’s University, Kingston, ON, Canada. \textsuperscript{2}Department of Chemistry and Biology, Ryerson University, Toronto, ON, Canada. (Abstract #10)

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

DIFFERENTIAL PHOSPHORYLATION OF STAT3\textsubscript{A} AND THE DOMINANT-NEGATIVE MUTANT STAT3\textsubscript{B}, FOLLOWING CELL TO CELL ADHESION VS ONCOGENE EXPRESSION. Stephanie Guy, Zaid Taha, Rozanne Arulanandam, Adina Vultur, and Leda Raptis. Department of Pathology and Molecular Medicine, Queen’s University, Kingston, ON. (Abstract #12)

HOW WELL DO WE AIM? RECENT DEVELOPMENTS IN FILM AND GEL RADIATION DOSIMETRY. Kevin Alexander, Tim Olding, Ainsley Hobart, L. John Schreiner. Department of Physics, Engineering Physics & Astronomy, Queen’s University, Kingston, ON, Canada. (Abstract #15)

LARGE VALIDATION STUDY OF PROGNOSTIC ROLE OF PTEN IN PROSTATE CANCER AND COMPARISON OF ASSAYS PERFORMANCE ON CANARY MULTI-CENTER COHORT. Tamara Jamaspishvili\textsuperscript{1}, Dean Troyer\textsuperscript{2}, Tamara L. Lotan\textsuperscript{3}, Jennifer Good\textsuperscript{1}, Jeremy A. Squire\textsuperscript{4}, and Canary Pathology Team Investigating Tissue biomarkers (CAPIT)\textsuperscript{5}. \textsuperscript{1}Department of Pathology & Molecular Medicine, Queen’s University, Kingston, ON, Canada; \textsuperscript{2}Eastern Virginia Medical School, Pathology and Microbiology and Molecular Biology, Norfolk, Virginia, USA; \textsuperscript{3}Johns Hopkins School of Medicine, Pathology, Baltimore, MD, USA; \textsuperscript{4}Department of Genetics, University of Sao Paulo at Ribeirao Preto, Brazil, \textsuperscript{5}Canary Pathology Team Investigating Tissue biomarkers (CAPIT), Canary Center at Stanford, Palo Alto, USA. (Abstract #16)

MELATONIN PATTERNS AMONG FEMALE HOSPITAL WORKERS ON DAY AND NIGHT SHIFTS: ASSESSMENT BY DIFFERENT EXPOSURE METRICS. Michael Leung, Eleanor Hung, Andrew Day, Renee Corbin, Joan Tranmer, Kristan Aronson. Department of Public Health Sciences. (Abstract #17)
PPARγ LOSS INCREASES METASTATIC POTENTIAL OF HER2+ BREAST TUMOURS IN MAMMARY EPITHELIAL TARGETED KNOCKOUT MICE. Elizabeth D Lightbody, Kathleen O’Connell, Rachel E Rubino, Anthony J Apostoli, Mark M Schneider, Sandip K SenGupta, and Christopher JB Nicol. 1 Department of Pathology and Molecular Medicine; 2 Division of Cancer Biology and Genetics, Cancer Research Institute (CRI); and 3 Department of Biomedical and Molecular Sciences, Queen’s University, Kingston, ON, Canada. (Abstract #18)

THE ROLE OF CALPAINS-1/2 IN PROMOTING MAMMARY TUMORIGENESIS. James A. MacLeod and Peter A. Greer. Department of Pathology & Molecular Medicine, Queen’s University, Kingston, Ontario, Canada. (Abstract #19)

FER KINASE PROMOTES HER2-POSITIVE BREAST CANCER PROGRESSION AND METASTASIS. Graeme Mullins, Changnian Shi, and Peter Greer. Department of Pathology and Molecular Medicine. (Abstract #20)

SIGNAL TRANSDUCER AND ACTIVATOR OF TRANSCRIPTION-3 (STAT3) IS REQUIRED FOR THE DIFFERENTIATION OF HC11, MOUSE BREAST EPITHELIAL CELLS. Jamaica Cass, Maximilian Niit, Rozanne Arulanandam, Bruce Elliott and Leda Raptis. Department of Pathology and Cancer Center, Queen’s University, Kingston, Ontario, Canada. (Abstract #21)

DNA METHYLATION-BASED BIOMARKER DISCOVERY APPROACH TO STRATIFY PATIENTS WITH POTENTIALLY LETHAL PROSTATE CANCER. Palak Patel, Atsunari Kawashima, Nathan How, Suzanne Boursalie, John B. A. Okello and David M. Berman. Department of Pathology & Molecular Medicine, and Division of Cancer Biology & Genetics, Cancer Research Institute, Queen’s University, Kingston, Ontario, Canada. (Abstract #22)

ILLUMINATING THE SHADOWS: DETERMINING ELECTRON DENSITY WITH MEGAVOLTAGE CT IN METAL ARTIFACT CASES. Nikhil Seth, Christopher Jechel, Greg Salomons and L. John Schreiner. Queen’s University Department of Physics, Engineering Physics & Astronomy, Kingston, ON, Canada. (Abstract #23)

THE ROLE OF PPARγ DURING BREAST TUMOUR ANGIOGENESIS. Jia Yue (Amelia) Shi, Rachel Rubino, Christopher J. Nicol. 1 Department of Biomedical & Molecular Sciences; 2 Division of Cancer Biology & Genetics, Cancer Research Institute (CRI); and 3 Department of Pathology & Molecular Medicine, Queen’s University, Kingston, ON, Canada. (Abstract #24)

BARRIERS AND INTERVENTIONS TO IMPROVE ONCOLOGIST PARTICIPATION IN CLINICAL TRIALS. Amanda Springer, Elizabeth A. Eisenhauer MD, FRCPC, Aamer Mahmud MD, FRCPC. (Abstract #25)

THE TUMOUR-SUPPRESSOR MICRORNA-206 TARGETS KEY REGULATORS OF INVADOPODIA AND SUPPRESSES CANCER CELL INVASION AND METASTASIS IN VITRO AND IN VIVO. Kathleen Watt, Peter Truesdell, and Andrew W.B. Craig. Cancer Biology and Genetics, Department of Biomedical and Molecular Sciences, Queen’s University, Kingston, ON. (Abstract #26)
TARGETING THE ACTIN CYTOSKELETON IN METASTATIC CANCER MODELS USING A NOVEL ANTIBODY DRUG CONJUGATE. Rodette N Williams1,2, John S Allingham1, and Andrew WB Craig1,2. 1Department of Biomedical and Molecular Sciences; 2Cancer Biology & Genetics Division, Cancer Research Institute. (Abstract #27)

THE ROLE OF EPAC1 IN VASCULAR PERMEABILITY: NEUTROPHIL TRANSENDOTHELIAL MIGRATION AND CHRONIC OBSTRUCTIVE PULMONARY DISEASE. Nathalie S. Butler and Donald H. Maurice. Department of Biomedical Sciences, Queen’s University Kingston, Ontario Canada. (Abstract #28)

GAS EXCHANGE AND PULMONARY BLOOD FLOW RESPONSES TO EXERCISE IN PATIENTS WITH COPD AND MILD-TO-MODERATE AIRFLOW OBSTRUCTION. Jones JH, Zelt JT, Hirai DM, O’Donnell DE, Neder JA. Department of Biomedical and Molecular Sciences. (Abstract #30)

TEMPORAL PATTERN OF VASCULAR PATHOGENESIS IN CKD: REGIONAL HETEROGENEITY IN VASCULAR CALCIUM ACCRUAL. Bruno Svajger1, Jason G. E. Zelt1, Kristin M. McCabe2, Cynthia M. Pruss1, Rachel M. Holden1, Michael A. Adams1, 1Queen's University, Pharmacology, Kingston, ON, CANADA, 2Queen's University, Pharmacology, Queen's University, ON, CANADA. (Abstract #31)

MAGNESIUM MODIFIES THE IMPACT OF CALCITRIOL TREATMENT ON VASCULAR CALCIFICATION IN EXPERIMENTAL CHRONIC KIDNEY DISEASE. Jason G.E. Zelt1, Kristin M. McCabe3, Bruno Svajger1, Henry Barron2, Kim Laverty1, Rachel M. Holden2, and Michael A. Adams1. 1Department of Biomedical and Molecular Sciences, Queen’s University, Kingston, Ontario, Canada, 2Department of Medicine, Queen’s University, Kingston, Ontario, Canada. (Abstract #32)

EXAMINING THE RELATIONSHIP BETWEEN BREAST CANCER RISK FACTORS AND DNA METHYLATION. Mr. Devon Boyne, Dr. Christine Friedenreich, and Dr. Will King. Department of Public Health Sciences. (Abstract #33)

ROUTINE FOLLOW-UP CARE AFTER CURATIVE TREATMENT OF HEAD AND NECK CANCER FROM THE PERSPECTIVE OF THE PATIENT. Kelly Brennan, Dr. Stephen Hall. Department of Public Health Science, & Cancer Care and Epidemiology Division. (Abstract #34)

BEVERAGE CONSUMPTION PATTERNS IN CANADIAN CHILDREN GRADES 6 TO 10. Laura Davis, Colleen Davison. Department of Epidemiology, Queen’s University. (Abstract #35)
RISK FACTORS AND TIMING OF VENOUS THROMBOEMBOLISM AFTER CYSTECTOMY IN ROUTINE CLINICAL PRACTICE: A POPULATION BASED STUDY. R. Christopher Doiron*1, Christopher M. Booth2,3,4, Xuejiao Wei4, D. Robert Siemens1,2,4. Departments of Urology1, Oncology2, Public Health Sciences3, Queen’s University. Division of Cancer Care and Epidemiology4, Queen’s University, Cancer Research Institute. (Abstract #36)

THE INFLUENCE OF COMPUTER-MEDIATED COMMUNICATION ON THE SELF PERCEIVED LONELINESS OF CANADIAN ADOLESCENTS. Lindsay Favotto, Colleen Davison, Valerie Michaelson. Department of Public Health Sciences, Queen’s University. (Abstract #37)

WHAT IS HUNGER AND FOOD INSECURITY TO CANADIAN ADOLESCENTS? A QUALITATIVE STUDY ON ADOLESCENTS’ CURRENT PERSPECTIVES AND CONTENT VALIDITY ANALYSIS OF A NATIONAL SURVEY ITEM. Farzana Haq & Colleen Davison. Department of Public Health Sciences, Queen’s University, Ontario, Canada. (Abstract #38)

EFFECTS OF RETIREMENT ON DEPRESSIVE SYMPTOMS AND COGNITIVE FUNCTION: A SEX/GENDER AND INTERNATIONAL PERSPECTIVE. Heather D. Kerr, Beatriz Alvarado and Kristan Aronson. Department of Public Health Sciences, Queen’s University, Kingston, Ontario Canada. (Abstract #39)

ADAPTATION OF A FRAILTY INDEX FOR ONTARIO’S INTELLECTUAL & DEVELOPMENTAL DISABILITIES HOME CARE POPULATION. Katherine McKenzie, Hélène Ouellette-Kuntz, & Lynn Martin. Department of Public Health Sciences, Queen’s University, Kingston, Ontario, Canada. (Abstract #41)

THE DIFFERENTIAL IMPACT OF OXYTOCIN RECEPTOR (OXTR) GENOTYPES ON SOCIAL COMMUNICATION SKILLS OF INDIVIDUALS WITH AUTISM SPECTRUM DISORDERS (ASD). Meagan Milton1, Dr. Hélène Ouellette-Kuntz1, Dr. Xudong Liu2. 1Queen’s University, Department of Public Health Sciences. 2Queen’s University, Department of Psychiatry. (Abstract #42)

A REVIEW OF EXISTING REFLEX LYNCH SYNDROME SCREENING PROGRAMS. Carolyn Rotenberg1,2, Corinne Daly1, Natalie Baker3, Marcia Facey4, and Nancy N. Baxter1. 1Department of Surgery, St. Michael’s Hospital. 2Department of Biomedical and Molecular Sciences, Queen’s University. 3Applied Heath Research Centre, St. Michael’s Hospital. 4Dalla Lana School of Public Health, University of Toronto. (Abstract #43)

THROMBOELASTOGRAPHY (TEG) IN THE MANAGEMENT OF TRAUMA: IMPLICATIONS FOR THE DEVELOPING WORLD. Morgan Schellenberg, MD, MPH1,2, Kent Stevens, MD, MPH1, Amber Mehmoood, MD1,2International Injury Research Unit, Johns Hopkins Bloomberg School of Public Health, Baltimore, MD, USA; 2Department of General Surgery, Queen’s University, Kingston, ON, Canada. (Abstract #44)
GENETIC VARIANTS OF VITAMIN D-RELATED GENES AND BREAST CANCER RISK. Joy Shi¹, Anne Grundy², Johanna M. Schuetz³, Harriet Richardson¹, Igor Burstyn⁴, Angela Brooks-Wilson³,⁵, John J. Spinelli³,⁶, Kristan J. Aronson¹. ¹ Dept of Public Health Sciences; and Cancer Research Institute Division of Cancer Care and Epidemiology, Queen’s University. ² Dept of Cancer Epidemiology and Prevention Research, Alberta Health Services - Cancer Control Alberta, Calgary. ³ Canada’s Michael Smith Genome Sciences Centre, British Columbia Cancer Agency. ⁴ Dept of Environmental and Occupational Health, Drexel University, Philadelphia. ⁵ Dept of Biomedical Physiology and Kinesiology, Simon Fraser University, Burnaby. ⁶ School of Population and Public Health, University of British Columbia. (Abstract #45)

SURGICAL TRENDS FOLLOWING THE INSTITUTION OF PROVINCIAL STANDARDS FOR PANCREATIC CANCER RESECTIONS: A QUALITY ASSURANCE STUDY. Daniel Sisson, Sulaiman Nanji, Diederick Jalink. (Abstract #46)

ACCESS TO HIGH QUALITY COLONOSCOPY AND THE COLORECTAL CANCER DIAGNOSTIC INTERVAL. Colleen Webber¹,² Jennifer Fleming¹,²,³ Richard Birtwhistle¹,⁴ Mark Rosenberg¹,⁵ Patti A. Groome¹,². ¹ Department of Public Health Sciences, Queen’s University, Kingston, Ontario Canada. ² Division of Cancer Care and Epidemiology, Queen’s Cancer Research Institute, Kingston, Ontario Canada. ³ Division of Gastroenterology, School of Medicine, Queen’s University, Kingston, Ontario Canada. ⁴ Department of Family Medicine, Queen’s University, Kingston, Ontario Canada. ⁵ Department of Geography, Queen’s University, Kingston, Ontario Canada. (Abstract #47)

THE ROLE OF HEME OXYGENASE (HO)-1 AND ITS INHIBITOR, QC-282, IN ENDOMETRIOSIS. SooHyun Ahn and Caragh Miller, Brian McLaughlin, Kanji Nakatsu, and Chandrakant Tayade. Department of Biomedical and Molecular Sciences, Queen’s University, Kingston, ON. (Abstract #48)

CLASSICALLY AND ALTERNATIVELY ACTIVATED MACROPHAGES ARE MORE EFFICIENT IN THEIR IMMUNE RESPONSE TO LCMV INFECTION COMPARED TO NON-ACTIVATED MACROPHAGES. Andra Banete, Rylend Mulder, and Sam Basta. Department of Biomedical and Molecular Sciences, Queen’s University. (Abstract #49)

AMINOGLYCOSIDE MEDIATED-INDUCTION OF THE MEXAB-OPRM MULTIDRUG EFFLUX OPERON IN PSEUDOMONAS AERUGINOSA: INVOLVEMENT OF THE AMGRS TWO-COMPONENT SYSTEM. Michael Fruci and Keith Poole. Department of Biomedical and Molecular Sciences. Queen’s University, Kingston, Ontario, Canada. (Abstract #50)

DEVELOPMENT OF A CAENORHABDITIS ELEGANS MODEL TO STUDY MECHANISMS OF MICROBIOTA-MEDIATED PROTECTION AGAINST CLOSTRIDIUM DIFFICILE. Teklu Gerbaba, Amtul Moeez, Curtis Noordhof, Ian Chin-Sang, Elaine Petrof. (Abstract #51)
TARGETED EXCHANGE OF PTGS2 ENCODING CYCLOOXYGENASE-2 INTO THE PTGS1 LOCUS IN MICE. Xinzhi Li, Laurel L. Ballantyne, Emily Clifford, Colin D. Funk. Department of Biomedical and Molecular Sciences, Queen’s University, Kingston, ON, Canada. (Abstract #53)

EFFECTS OF INCREASED INFLAMMATION ON ANTIVIRAL CD8+ T CELL RESPONSE IN MICE EXPRESSING THE HUMAN-CYSTEINYL LEUKOTRIENE RECEPTOR 2 (h-CysLT2R). Aman Mehrotra1, Rylend Mulder1, Colin D. Funk1, Sam Basta1 Department of Biomedical and Molecular Sciences, Queen’s University, Kingston, Ontario. (Abstract #54)

TLR-INDUCED IL-12/IL-23 EXPRESSION IS INHIBITED IN DENDRITIC CELLS BY LYMPHOCYTIC CHORIOMENINGITIS VIRUS INFECTION BY ALTERING SPECIFIC INTRACELLULAR SIGNALLING PATHWAYS. Divya MEHTA, Nor Fazila CHE MAT, Sarah SIDDIQUI, Katrina GEE, and Sam BASTA. Department of Biomedical and Molecular Sciences, Queen's University, Canada. (Abstract #55)

DAMPS INDUCE ENDOThelial VON WILLEBRAND FACTOR RELEASE AND CONTRIBUTE TO ITS INCREASED PLASMA LEVELS IN MODELS OF INFLAMMATION. Alison Michels1, Silvia Albánez1, Jeffrey Mewburn2, Kate Spongle1, Travis J. Gould3, Patricia C. Liaw4, Paula D. James5, Laura L. Swystun1, David Lillicrap1. 1Department of Pathology and Molecular Medicine, Queen’s University, Kingston, ON, CAN. 2 Cancer Research Institute, Queen’s University, Kingston, ON, CAN. 3Thrombosis and Atherosclerosis Research Institute, Department of Medical Sciences, McMaster University, Hamilton, ON, CAN. 4Thrombosis and Atherosclerosis Research Institute, Department of Medicine, McMaster University, Hamilton, ON, CAN. 5 Department of Medicine, Queen’s University, Kingston, ON. (Abstract #56)

SALMONELLA ENTERICA SEROVAR TYPHIMURIUM INFECTION AND PREGNANCY DISRUPTION IN A MURINE MODEL. Shuhiba Mohammad1, Kristina Wachholz2,3, Lakshmi Krishnan2,3, Shawn P. Murphy4, B. Anne Croy1. 1Department of Biomedical and Molecular Sciences, Queens University; 2Department of Biochemistry, Microbiology and Immunology, University of Ottawa; 3Human Health Therapeutics, National Research Council Canada; 4Department of Obstetrics and Gynecology & Microbiology and Immunology, School of Medicine and Dentistry, University of Rochester. (Abstract #57)

IL-27 MODULATION OF INFLAMMASOME ACTIVATION IN HUMAN MONOCYTES. Carlene Petes1, Christopher Wynick1, Divya Mehta1, Christina Guzzo2, Sameh Basta1 and Katrina Gee1. 1Department of Biomedical and Molecular Sciences, Queen’s University, Kingston, ON 2 Laboratory of Immunoregulation, National Institute of Allergy and Infectious Diseases, National Institutes of Health, Bethesda, MD, USA. (Abstract #58)

INFLAMMATORY MECHANISMS OF THE NOVEL CYTOKINE IL-30 IN IMMUNE CELLS. Yawen (Rosa) Yang1, Carlene Petes1, and Katrina Gee1. 1Department of Biomedical and Molecular Sciences, Queen’s University, Kingston, ON. (Abstract #59)
THE EFFECT OF IL-27 PRETREATMENT ON *Salmonella enterica* serovar Typhimurium infection of THP-1 monocytic cells. Samantha M. Plater, Katrina Gee and Nancy L. Martin. Department of Biomedical and Molecular Biology, Queen’s University, Kingston Ontario, Canada. (Abstract #60)

**Neuroscience Research**

THE USE OF ROBOT-BASED BEHAVIOURAL TASKS TO QUANTIFY MOTOR, SENSORY AND COGNITIVE IMPAIRMENTS IN ALS PATIENTS. Ghada Atalla, Sean Taylor, Stephen H. Scott. Centre for Neuroscience Studies, Queen’s University. (Abstract #61)

EPGENETIC REGULATION OF GENE EXPRESSION IN PROLIFERATING INTESTINAL SMOOTH MUSCLE CELLS. Quinn A. Bonafiglia and M. G. Blennerhassett. GIDRU and Dept. of Medicine, Queen’s University, Kingston, ON, Canada. (Abstract #62)

INFLAMMATION UPREGULATES GDNF PROCESSING VIA MMP-9 ACTIVITY. Kirsten Cirella and M. G. Blennerhassett. GIDRU and Dept. of Medicine, Queen’s University, Kingston, ON, Canada. (Abstract #63)

BEHAVIOURAL AND COGNITIVE ASSESSMENT OF ALDEHYDE DEHYDROGENASE 2 (ALDH2) NULL MICE: A NEW, OXIDATIVE STRESS-BASED MODEL OF AGE-RELATED ALZHEIMER’S DISEASE (AD). Ahmed Elharram, Yohan D’Souza and Brian Bennett. Department of Biomedical and Molecular Sciences and Centre for Neuroscience Studies, Queen’s University. (Abstract #64)

METABOLIC AND CARDIOVASCULAR SIGNALS ACT AT THE SUBFORNICAL ORGAN TO INCREASE INTRACELLULAR CALCIUM. Sebastian Gorlewski, Pauline M. Smith, Alastair V. Ferguson. Department of Biomedical Sciences, Queen’s University Kingston, Ontario Canada. (Abstract #65)

ROLE OF EXTRACELLULAR MATRIX (ECM) IN ENTERIC NEURONAL SURVIVAL AND AXONAL OUTGROWTH. Catherine A. London and M. G. Blennerhassett. GIDRU and Dept. of Medicine, Queen’s University, Kingston, ON, Canada. (Abstract #66)
GENE THERAPY CORRECTS GM2 GANGLIOSIDOSIS IN SANDHOFF MICE FOR LONG-TERM, BY USING AAV VIRAL VECTOR EXPRESSING A NEW HEXOSAMINIDASE VARIANT VIA NEONATAL INTRAVENOUS INJECTION. Karlaina JL. Osmon¹, Evan Woodley², Patrick Thompson³, Katalina Ong³, Subha Karumuthil-Melethil⁴, Brian Mark⁵, Don Mahuran⁶, Steven J. Gray⁷, Jagdeep S. Walia¹.¹².¹ Centre for Neuroscience Research, Queen's University, Kingston; ²Department of Biomedical and Molecular Sciences, Queen's University, Kingston; ³Medical Genetics/Departments of Pediatrics and Pathology and Molecular Medicine, Queen's University, Kingston; ⁴Gene Therapy Centre, University of North Carolina, Chapel Hill, North Carolina; ⁵Department of Microbiology, University of Manitoba, Winnipeg; ⁶Genetics and Genome Biology, Sick Kids, Toronto; ⁷Department of Laboratory Medicine and Pathology, University of Toronto, ⁸Department of Ophthalmology, University of North Carolina, Chapel Hill, North Carolina. (Abstract #67)

17β-ESTRADIOL MODULATES SYNAPTIC PLASTICITY IN THE RAT PRIMARY AUDITORY CORTEX. Chloe N. Soutar¹, Simon G. Rodier², San-San A. Chee¹, Nicole Pun², & Hans C. Dringenberg¹.¹².¹ Centre for Neuroscience Studies, Queen’s University, Kingston, ON. ²Department of Psychology, Queen’s University, Kingston, ON. (Abstract #68)

DRUG ENHANCEMENT OF AAV VIRAL GENE THERAPY FOR GM2 GANGLIOSIDOSIS IN SANDHOFF MICE. Evan Woodley, Karlaina Osmon, Patrick Thompson, Jagdeep Walia. Department of Biomedical and Molecular Sciences, Queen’s University, Kingston. (Abstract #70)

HUMAN ACETYL-COENZYME A: GLUCOSAMINE-6-PHOSPHATE ACETYLTRANSFERASE IS AN ACYL-TRANSFERASE. Min Chen [1], Xiaojing Yang [1], Dileep Nair [1], John Allingham [1], Tassos Anastassiades [2], and Inka Brockhausen [1] [1] Department of Biomedical and Molecular Sciences and [2] Department of Medicine, Division of Rheumatology, Queen’s University. (Abstract #71)


ACMNPV LEF-3 IS REQUIRED FOR VIRAL DNA REPLICATION AND LATE GENE EXPRESSION. Mustapha El-Ayoubi, and Eric B. Carstens. Department of Biomedical and Molecular Sciences, Queen’s University, Kingston, Ontario, Canada. (Abstract #73)

INVESTIGATING THE ROLE OF E2A-PBX1 IN ACUTE LYMPHOBlastic LEUKEMIA. David N. Langelaan, Alyssa K. Kirlin, Marina Lochead, Seth Chitayat, Steven P. Smith. Department of Biochemistry and Molecular Biology, Queen's University. (Abstract #74)
Rehabilitation Science

WOMEN WITH PROVOKED VESTIBULODYNIA DEMONSTRATE DIFFERENCES IN RESTING PELVIC FLOOR MORPHOMETRY COMPARED TO ASYMPTOMATIC CONTROLS. Kaylee C.L. Brooks, BSc (Psyc) candidate, Stephanie Thibault-Gagnon, PhD candidate, Corrie Goldfinger, PhD, Caroline Pukall, PhD, Susan Chamberlain, MD, Linda McLean, PhD, School of Rehabilitation Therapy, Queen’s University, Kingston, Ontario, Canada. (Abstract #76)

THE EXPERIENCE OF PERSONS WITH MULTIPLE SCLEROSIS WITH AN INTERACTIVE, SELF-GUIDED FATIGUE MANAGEMENT EDUCATIONAL RESOURCE. Petrin, J.1, Turpin, K.2, Akbar, N.3, Smyth, P.4 & Finlayson, M1. 1School of Rehabilitation Therapy, Queen’s University, Kingston, ON, 2School of Public Health, University of Alberta, Edmonton, AB, 3Hospital for Sick Children, University of Toronto, Toronto, ON, 4Department of Medicine, University of Alberta, Edmonton, AB. (Abstract #78)

Reproductive and Sexual Function

DIFFERENTIAL EXPRESSION OF CHEMOKINES AND LYMPHOCYTE RECRUITMENT AT THE PORCINE MATERNAL-FETAL INTERFACE. Mallikarjun Bidarimath 1, Kasra Khalaj1, Rami T Kridli2, Jocelyn M. Wessels3, Chandrakant Tayade3. 1Department of Biomedical and Molecular Sciences, Queen’s University, Kingston, 2Department of Biomedical Sciences, Ontario Veterinary College, University of Guelph, Guelph, 3Department of Obstetrics and Gynecology, McMaster University, Hamilton. (Abstract #79)

ABERRANT MATERNAL INFLAMMATION LEADS TO HYPERGLYCAEMIA AND INSULIN RESISTANCE IN PREGNANT RATS. MS Chasmar1, CH Graham2. 1,2 Biomedical and Molecular Sciences, Queen’s University, Kingston, Canada. (Abstract #80)

EFFECT OF ABNORMAL MATERNAL INFLAMMATION ON UTERINE VASCULAR REACTIVITY LEADING TO FETAL DEATH. Megan Collie and Charles H. Graham. Department of Biomedical and Molecular Sciences. (Abstract #81)

HETEROGENEITY OF UTERINE NATURAL KILLER CELL CONJUGATES WITHIN EARLY MOUSE DECIDUA. Allison M. Felker and B. Anne Croy. Department of Biomedical and Molecular Sciences, Botterell Hall, Queen’s University, Kingston ON. (Abstract #82)

THE POSSIBLE ROLE OF GLUTATHIONE-S-TRANSFERASE OMEGA 2 (GSTO2) IN SPERM MATURATION AND MALE PRONUCLEAR FORMATION. Hamilton, Lauren E., Acteau, G., Xu, W., O’Flaherty, C., and Richard Oko. Department of Biomedical and Molecular Sciences, Queen’s University, Kingston, Ontario, Canada. (Abstract #84)
ATTENUATED MRNA STABILITY IN ENDOMETRIOSIS. Kasra Khalaj¹, SooHyun Ahn¹, Mallikarjun Bidarimath¹, Sony S Singh², Chandra Tayade¹. ¹Department of Biomedical and Molecular Sciences, Queen’s University, Kingston, Ontario, Canada; ²Department of Obstetrics and Gynecology, Ottawa General Hospital, Ottawa, Ontario, Canada. (Abstract #85)

IMPACT OF PLACENTAL GROWTH FACTOR AND PREECLAMPSIA ON BRAIN VASCULAR DEVELOPMENT, COGNITION, AND BEHAVIOR. MT. Rätsep¹, A Paolozza², B Zavan¹, VR. Kay¹, A Hickman¹, B Maser¹, ND. Forkert³,⁴, D Zhou⁵,⁶, C Beaulieu⁵,⁶, J Ellegood⁷, JG. Sled⁷,⁸, PW. Stroman⁹, GN. Smith¹, JN. Reynolds¹,², MA. Adams¹ & BA Croy¹. ¹Dept of Biomedical and Molecular Sciences and ²Centre for Neuroscience Studies, Queen’s University, ³Dept of Radiology & ⁴Hotchkiss Brain Institute, University of Calgary, ⁵Dept of Biomedical Engineering and ⁶Peter S. Allen MR Research Centre, University of Alberta, ⁷Mouse Imaging Centre, Hospital for Sick Children and ⁸Dept of Medical Biophysics, University of Toronto. (Abstract #86)

THE IMPACT OF THE ABSENCE OF CIRCULATING NATURAL KILLER CELLS ON PREGNANCY. Mackenzie Redhead, Department of Biomedical and Molecular Sciences, Queen’s University. (Abstract 87)

INVESTIGATING THE FUNCTIONAL RELEVANCE OF THE INTERACTION BETWEEN POSTACROSOMAL SHEATH WW-BINDING PROTEIN (PAWP) AND YES-ASSOCIATED PROTEIN (YAP) DURING OOCYTE ACTIVATION. Mengqi Shi, Wei Xu, Richard J. Oko. Department of Biomedical and Molecular Sciences, Queen’s University, Kingston, Ontario, Canada. (Abstract #88)

THE ROLE OF RECOMBINANT HUMAN OVIDUCT-SPECIFIC GLYCOPROTEIN IN EARLY EVENTS OF FERTILIZATION. Yuewen Zhao¹, Xiaojing Yang¹, Zongchao Jia¹, Robert Reid², Pierre Leclerc³, Frederick W. K. Kan¹. ¹Department of Biomedical and Molecular Sciences and ²Department of Obstetrics and Gynaecology, Queen’s University; ³Research Center for the Study of Biology of Reproduction, Laval University. (Abstract #89)

THE EFFECT OF VALPROIC ACID ON P300 EXPRESSION IN DIFFERENTIATED AND UNDIFFERENTIATED P19 EMBRYONIC CARCINOMA CELLS. Jordan K. Bricker¹ and Louise M. Winn¹,². ¹Department of Biomedical and Molecular Sciences, Graduate Program in Reproductive and Developmental Sciences, Queen’s University, Kingston, Ontario. ²School of Environmental Studies, Queen’s University, Kingston, Ontario. (Abstract #90)

EFFECTS OF THE BENZENE METABOLITES BENZOQUINONE AND HYDROQUINONE ON NF-KB ACTIVITY DURING HL-60 HUMAN LEUKEMIA CELL DIFFERENTIATION. Joseph P. Cozzarin and Louise M. Winn. Department of Biomedical and Molecular Sciences. Queen’s University, Kingston, Ontario, Canada. (Abstract #91)
CBP/P300 HISTONE ACETYLTRANSFERASE ACTIVITY FOLLOWING VALPROIC ACID EXPOSURE IN P19 EMBRYONAL CARCINOMA CELLS. Christina L. Lamparter and Louise M. Winn. 1Department of Biomedical and Molecular Sciences, Graduate Program in Pharmacology and Toxicology, Queen's University, Kingston, Ontario. 2School of Environmental Studies, Queen's University, Kingston Ontario. (Abstract #92)

LATENT CONGENITAL HEART DEFECTS AND PREDISPOSITION TO CARDIOVASCULAR DISEASE FOLLOWING POSTNATAL HYPERSTIMULATION OF ADRENERGIC RECEPTORS AS A MODEL OF POST-TRAUMATIC STRESS DISORDER. Rebecca D. Maciver, Kristiina L. Aasa, Michael A. Adams, Louise M. Winn, Terence R. S. Ozolinš. Department of Biomedical and Molecular Sciences, Graduate Program in Pharmacology and Toxicology, Queen’s University, Kingston, ON. (Abstract #93)

IOHEXOL PLASMA CLEARANCE IN MURINE MODELS: THE CLEAR CHOICE FOR MEASURING EARLY RENAL DYSFUNCTION. Mandy Turner, Kim Laverty, Martin Kaufmann, Glennie Jones, Christine White, Rachel Holden, Michael Adams. 1Department of Biomedical and Molecular Sciences, Queen’s University, Kingston, ON, 2School of Medicine, Queen’s University, Kingston, ON. (Abstract #95)

VASCULAR DEVELOPMENT OF THE MURINE CENTRAL NERVOUS SYSTEM IS IMPAIRED IN THE ABSENCE OF PLACENTAL GROWTH FACTOR. Vanessa R. Kay and B. Anne Croy. Department of Biomedical and Molecular Sciences, Queen’s University, Kingston, ON, Canada. (Abstract #96)

EXPLORING THE POTENTIAL OF LOW DOSE CARBON MONOXIDE INHALATION FOR USE AS A GASEOUS THERAPEUTIC FOR PREECLAMPSIA: A PILOT STUDY IN HEALTHY VOLUNTEERS. Karalyn E McRae, Richard Casselman and Graeme N Smith. 1Department of Biomedical and Molecular Sciences, Queen’s University, Kingston, Ontario, Canada and 2Department of Obstetrics and Gynaecology, Kingston General Hospital, Kingston, Ontario, Canada. (Abstract #98)

ASSESSING RENAL FUNCTION WITH PHOSPHATE LOADING CHALLENGE FOLLOWING PREECLAMPTIC PREGNANCY (STUDY PROPOSAL). Janelle (Jing) Zhan, BSc (MSc. Candidate), Jessica Pudwell, MPH, Rachel Holden, MD, Graeme Smith, MD, PhD. 1Department of Biomedical and Molecular Sciences and 2Division of Nephrology, Queen’s University, Kingston, Ontario, Canada. 3Department of Obstetrics and Gynecology, Kingston General Hospital, Kingston, Ontario, Canada. (Abstract #99)