

Biochemistry & Physiology, Ecology

April 5, 2014

North Campus Building, Room 293

Examiners: Cam Donly, Sheila Macfie, Ian Scott

- 9:10-9:30 a.m. **Load Presentations for first 3 presenters**
- 9:30-9:50 a.m. **Marin Mema** supervisor: D. Way
New-growth needle anatomical acclimation in *Pinus sylvestris* and *Picea abies* saplings grown in elevated atmospheric temperatures and [CO₂]
- 9:50-10:10 a.m. **Michael Brennan** supervisor: N. Huner/L.Kurepin
The effect of drought stress on seed yield of wild-type and the CBF over-expressor (CBF-17) of *Brassica napus* L. cv Westar
- 10:10-10:30 a.m. **Jack Blackburn** supervisor: C. Donly
MDR, MRP, and P450 gene expression in insecticide resistant and susceptible populations of the Colorado potato beetle (*Leptinotarsa decemlineata*, Say)
- 10:30-10:50 a.m. **Coffee Break**
LOAD PRESENTATIONS FOR NEXT 5 PRESENTERS
- 10:50-11:10 a.m. **Joshua Frank** supervisor: S. Macfie
Do plant growth-promoting rhizobacteria reduce production of ethylene in *Arabidopsis* under cadmium stress?
- 11:10-11:30 p.m. **Jorge-Ryan Georgakopoulos** supervisor: M. Bernards
The chemoattractant potential of ginsenosides from American ginseng for *Pythium irregulare*
- 11:30-11:50 p.m. **Margaret Sawatzky** supervisor: Z. Lindo
Effects of temperature and atmospheric CO₂ on microbe-mediated nitrogen and carbon dynamics of the boreal bryosphere
- 11:50-12:10 p.m. **Katarina Doughty** supervisor: B. Neff/S. Garner
Adaptive potential of populations to climate change: quantifying genetic variation at the MHC class-1 locus in the guppy (*Poecilia reticulata*)
- 12:10-12:30 p.m. **Abby Watts-Dickens** supervisor: C. Donly
MDR and MRP gene expression following dietary exposure to synthetic and naturally occurring xenobiotics in *Trichoplusia ni*
- 12:30 p.m. **LUNCH in NCB Atrium and AWARDS FOR BEST PRESENTATIONS**

Ecology and Evolution

April 5, 2014

North Campus Building, Room 285

Examiners: Jeremy McNeil, Graham Thompson, Jenn Waugh

9:10-9:30 a.m.

Load Presentations for first 3 presenters

9:30-9:50 a.m.

Rosa Del Giudice

supervisor: H. Henry

Litter position effects on the decomposition of *Bromus inermis* and *Poa pratensis* litter during the winter

9:50-10:10 a.m.

Soundarya Selvam

supervisor: A. Moehring

Nmt: a candidate gene for behavioural isolation between *Drosophila melanogaster* and *D. simulans*

10:10-10:30 a.m.

Vlad Deboveanu

supervisor: G. Thorn

Health survey of street trees in London, Ontario, with special focus on fungal infections

10:30-10:50 a.m.

Coffee Break

LOAD PRESENTATIONS FOR NEXT 5 PRESENTERS

10:50-11:10 a.m.

Snow Le

supervisor: D. Way

The effect of elevated CO₂ concentrations and growth temperatures on thermotolerance in Norway spruce (*Picea abies*)

11:10-11:30 p.m.

Zach Moore

supervisor: J. McNeil

Temperature, diet and background colour effects on larval and adult colour of the true armyworm *Pseudaletia unipuncta* (Haworth)

11:30-11:50 p.m.

Caryn Dooner

supervisor: A. Moehring

The effect of accessory proteins on sperm survivability in *Drosophila pseudoobscura*

11:50-12:10 p.m.

Marco Coto

supervisor: D. Sherry/M. Guigeuno

Brown-headed cowbirds can count: numerical ability of a brood parasite, *Molothrus ater*

12:10-12:30 p.m.

Adam Sullivan

supervisor: D. Way

Acclimation of thermotolerance in Scots pine (*Pinus sylvestris*) in response to elevated temperature and [CO₂]

12:30 p.m.

LUNCH in NCB Atrium and AWARDS FOR BEST PRESENTATIONS

Biochemistry and Physiology

April 5, 2014

North Campus Building, Room 295

Examiners: Brent Sinclair, Andre Lachance, Mark Bernards

9:10-9:30 a.m.

Load Presentations for first 3 presenters

9:30-9:50 a.m.

Mathew Mathew

supervisor: R. Barthal

An examination of the neuropathology of APP/PS1 x ST11-/+ mice, with regards to hippocampal volume, to evaluate their use as model organisms for Alzheimer's research

9:50-10:10 a.m.

Tyler Cooper

supervisor: D. Hess

Modulation of retinoic acid pathway during the expansion of primitive hematopoietic progenitor cells with high aldehyde dehydrogenase activity

10:10-10:30 a.m.

Jia Liu

supervisor: T. Regnault

Implications of consuming a western diet following an adverse *in utero* environment upon the fructose metabolic pathway in the skeletal muscle

10:30-10:50 a.m.

Coffee Break

LOAD PRESENTATIONS FOR NEXT 5 PRESENTERS

10:50-11:10 a.m.

Emily Chao

supervisor: W. Siqueira

Studies on the encapsulation of salivary anti-microbial peptides

11:10-11:30 a.m.

Julia Abitbol

supervisor: B. Allman

The effect of chronic stress on noise-induced hearing loss

11:30-11:50 a.m.

Jacqueline Lebenzon

supervisor: B. Sinclair

Development of a new artificial diet for gut loading in the fall field cricket (*Gryllus pennsylvanicus*)

11:50-12:10 p.m.

Shi Tang

supervisor: S. Ma

Production of transgenic potato mini-tubers targeted with a novel fusion gene consisting of exendin-4 and transferrin for protein expression may have potential to be an organ antidiabetic for treatment of type 2 diabetes

12:10-12:30 p.m.

Kelee Forst

supervisor: R. Cumming

Examining the neuroprotective properties of GPR81 and lactate

12:30 p.m.

LUNCH in NCB Atrium and AWARDS FOR BEST PRESENTATIONS

Cell Biology

April 5, 2014

North Campus Building, Room 113

Examiners: Greg Kelly, Alex Timoshenko, Andrew Leask

- 8:50-9:10 a.m. **Load Presentations for first 4 presenters**
- 9:10-9:30 a.m. **Melissa Gaskas** supervisor: A. Leask
A piece of the CCN puzzle: the role of CCN1 in dermal fibroblast adhesion to the extracellular matrix
- 9:30-9:50 a.m. **Caitlin Evered** supervisor: S. Damjanovski
Changes in MMPs and TIMPs following knockdown of RECK in *Xenopus laevis* embryos
- 9:50-10:10 a.m. **Jennifer Fish** supervisor: T. Drysdale
Determining the requirement for Shroom3 in epidermal morphogenesis in the mouse
- 10:10-10:30 a.m. **James Vinnai** supervisor: A. Timoshenko
Effects of glycosylation on lectin-induced H₂O₂ production by phagocyte NADPH oxidase in HL-60 cells.
- 10:30-10:50 a.m. **Coffee Break**
LOAD PRESENTATIONS FOR NEXT 5 PRESENTERS
- 10:50-11:10 a.m. **Ratna Varma** supervisor: L. Hoffman
Investigating Nodal expression in mouse models of Duchenne muscular dystrophy
- 11:10-11:30 a.m. **Megan Kumm** supervisor: A. Leask
CCN1 and fibrosis: does CCN1 recruit progenitor cells?
- 11:30-11:50 p.m. **Diana Gemanaru** supervisor: T. Drysdale
Evaluating known human SHROOM3 variants for functional deficits
- 11:50-12:10 p.m. **Jacob Pelling** supervisor: S. Damjanovski
The effects of alteration to the cytoplasmic domain of membrane-type 1 matrix metalloproteinase on protein function
- 12:10-12:30 p.m. **Justin Lanteigne** supervisor: A. Timoshenko
Differential expression of galectin genes in human promyelocytic leukemia cells and cellular stress
- 12:30 p.m. **LUNCH in NCB Atrium and AWARDS FOR BEST PRESENTATIONS**

Genetics

April 5, 2014

North Campus Building, Room 117

Examiners: Susanne Kohalmi, Tricia Gray, Kathleen Hill

8:50-9:10 a.m.

Load Presentations for first 4 presenters

9:10-9:30 a.m.

Jane Gui

supervisor: S. Singh

Investigation on de novo mutations using complete genome sequences in families with monozygotic twins

9:30-9:50 a.m.

Yasuko Togawa

supervisor: V. Grbic

Delivery of RNAi against a gene of *Tetranychus urticae* via feeding on transgenic plants

9:50-10:10 a.m.

Amanda Tong

supervisor: R. Hegele

Identifying pathogenic mutations in patients with atypical progeria

10:10-10:30 a.m.

Anson Li

supervisor: K. Hill

Elucidating early mechanisms of retinal and cerebellar degeneration in the *harlequin* mouse

10:30-10:50 a.m.

Coffee Break

LOAD PRESENTATIONS FOR NEXT 5 PRESENTERS

10:50-11:10 a.m.

Castel Ramirez

supervisor: S. Ma

Development of SBA-fusion protein technology to obtain high level expression of human interleukin-4 in tobacco plants

11:10-11:30 a.m.

Aneesha Sood

supervisor: T. Shepherd

AMPK signaling control and autophagy in ovarian cancer cell survival

11:30-11:50 p.m.

Suzy Kim

supervisor: M. Valvano

Analyzing the function of the putative VacJ-like lipoprotein, BCAM2829, in *Burkholderia cenocepacia*

11:50-12:10 p.m.

Emily Grant

supervisor: N. Berube

Molecular analysis of ATRX deficiency in the mouse hippocampus

12:10-12:30 p.m.

Courtney Gendron

supervisor: S. Singh

The role of retroviral sequences on the evolution and individuality of the human genome

12:30 p.m.

LUNCH in NCB Atrium and AWARDS FOR BEST PRESENTATIONS

Genetics and Cell Biology

April 5, 2014

North Campus Building, Room 114

Examiners: Robert Cumming, Beth Locke, Tony Percival-Smith

- 8:50-9:10 a.m. **Load Presentations for first 4 presenters**
- 9:10-9:30 a.m. **Stephannie Glockler-Lauf** supervisor: F. Beier
Determining the role of *DOT1L*, a histone methyltransferase, on chondrogenesis
- 9:30-9:50 a.m. **Daniel Lee** supervisor: N. Huner
Does sugar concentration affect the expression of SUC9 or HXK1 in a sugar insensitive *Arabidopsis thaliana* cell suspension culture?
- 9:50-10:10 a.m. **Simrat Sodhi** supervisor: J. Karagiannis
Role of 40 S ribosomal proteins in cell cycle control: characterization of *Schizosaccharomyces pombe* mutants
- 10:10-10:30 a.m. **Li Ying Lim** supervisor: G. Kelly
Effects of mitochondrial dysfunction on mouse extraembryonic endoderm differentiation
- 10:30-10:50 a.m. **Coffee Break**
LOAD PRESENTATIONS FOR NEXT 5 PRESENTERS
- 10:50-11:10 a.m. **Jevan Friedlander** supervisor: D. Maxwell
Heat shock response in the psychrophilic Antarctic green alga
- 11:10-11:30 a.m. **Emily Clayton** supervisor: A. Hannoufa
The characterization of sinapine levels in developing *Camelina* seeds
- 11:30-11:50 p.m. **Mark Coumans** supervisor: K. Hill
Bioinformatic analysis of mouse genomes with abnormal copy number variants
- 11:50-12:10 p.m. **Fiona Bergin** supervisor: R. Austin
Phenotyping a 3-ketoacyl-CoA synthase 16 over-expression line in *Arabidopsis thaliana*
- 12:10-12:30 p.m. **Spencer Jones** supervisor: A. Hannoufa
Characterization of downstream elements of the SPL-miR156 regulatory network in *Arabidopsis*
- 12:30 p.m. **LUNCH in NCB Atrium and AWARDS FOR BEST PRESENTATIONS**

Environmental Science

April 5, 2014

North Campus Building, Room 296

Examiners: Greg Thorn, Patricia Corcoran, Christie Stewart

8:50-9:10 a.m.

Load Presentations for first 4 presenters

9:10-9:30 a.m.

Shane Vanhell

supervisor: K. Moser

Determining changes in primary production in Spencer Lake, Wisconsin: A paleolimnological investigation

9:30-9:50 a.m.

Sara Basile

supervisor: J. Voogt

Spatial and temporal assessment of *Sedum spurium* in green roof settings

9:50-10:10 a.m.

Christopher Evans

supervisor: B. Branfireun

Methyl mercury production in northern peatlands : controls of temperature and labile carbon availability

10:10-10:30 a.m.

Jamie Lee Martin

supervisor: G. Thompson

The effect of pesticides on honey bee survivorship, foraging and immunocompetence

10:30-10:50 a.m.

Coffee Break

LOAD PRESENTATIONS FOR NEXT 5 PRESENTERS

10:50-11:10 a.m.

Todd Norris

supervisor: P. Corcoran

Transport pathways and accumulation rates of plastic debris near Humber Bay, Lake Ontario

11:10-11:30 a.m.

Zahra, Nurmohamed

supervisor: F. Longstaffe

Determining paleoclimate conditions during the Nipissing phase of Lake Algonquin near Ferndale, Ontario

11:30-11:50 p.m.

Olivia Parisi

supervisor: S. Macfie

Effect of optimal-fertilization on plant health and herbivory of Kentucky Bluegrass (*Poa pratensis*)

11:50-12:10 p.m.

Maria Sia

supervisor: K. Moser

Paleolimnological reconstruction of algal production in trout-stocked Uinta Mountain lakes, Utah, USA

12:10-12:30 p.m.

Yvonne Ho

supervisor: J. Baxter

Examining the potential impacts of waste-to-energy facilities on public attitudes toward waste diversion

12:30 p.m.

LUNCH in NCB Atrium and AWARDS FOR BEST PRESENTATIONS