Wednesday Evening – June 11

6:00 pm  Registration: Outside Newman Room

7:00 pm  Plenary Talk: Newman Room
Professor Brent Sinclair, University of Western Ontario
Drosophila: A non-cold tolerant insect as a model for insect cold tolerance.

7:45 – 10:00 pm  Reception: Outside Newman Room

Thursday, June 12

7:45 – 8:50 am  Breakfast: Outside Newman Room (Extensive Continental)

8:50 am  Opening Remarks: Ian Orchard

Session Chair:  Ian Orchard

9:00 am  Leonard, E.M., Pierce, L.M., Wood, C.M. and M.J. O’Donnell, Department of Biology, McMaster University, Hamilton, ON, Canada.
Identification of mechanisms involved in high cadmium tolerance in Chironomus riparius. [see abstract – page 7]

9:20 am  Kocmarek, A.L., Spaic, M., and M.J. O’Donnell, Department of Biology, McMaster University, Hamilton, ON, Canada.
Movement of K⁺ across the blood brain barrier of the ventral neural cord of the cockroach. [page 8]

9:40 am  Chahine, S. and M.J. O'Donnell, Department of Biology, McMaster University, Hamilton, ON, Canada.
Characterization of the transepithelial transport of methotrexate by the Malpighian tubules of Drosophila melanogaster. [page 9]

10:00 am  Ianowski, J.P., Paluzzi, J.-P., Patrick, M. and I. Orchard, Department of Biology, University of Toronto Mississauga, Mississauga, ON, Canada.
Identification of a putative basolateral Na⁺:K⁺:2Cl⁻ cotransporter in Malpighian tubule of Rhodnius prolixus. [page 10]

10:20 – 10:40 am  Coffee Break: Outside Newman Room
Session Chair: Angela Lange

10:40 am  Dedes, J., Insectary Supervisor, Canadian Forest Service (CFS), GLFC, Sault Ste. Marie, ON, Canada.
The modernization of insect production services at the Great Lakes Forestry Centre. [page 11]

11:00 am  Klose, M.K. 1, Atwood, H.L. 1 and A.J. Mercier 2, 1Department of Physiology, University of Toronto, Toronto, ON; 2Department of Biological Sciences, Brock University, St. Catharines, ON, Canada.
Presynaptic modulation by a Drosophila neuropeptide requires internal calcium stores. [page 12]

11:20 am  D’Souza, O. 1,3, Rheault, M.4; Caveney, S.3 and B.C. Donly 2,3, 1Pest Management Centre, Agriculture and Agri-Food Canada, Ottawa ON. 2Southern Crop Protection and Food Research Centre, Agriculture and Agri-Food Canada, London ON. 3 Department of Biology, University of Western Ontario, London, ON. 4 Department of Biology and Physical Geography, University of British Columbia Okanagan, Kelowna, BC, Canada.
Multidrug resistance genes in the cabbage looper moth, Trichoplusia ni. [page 13]

11:40 – 12:00 pm  Short Exposures (5 minute talks plus questions)

Nguyen, H. and A. Donini, Department of Biology, York University, ON, Canada.
Neuronal control of epithelial ion transport? The anal papillae of Chironomids. [page 14]

Sinclair, B.J. 1, Gibbs, A.G. 2, Lee, W.-K. 3, Rajamohan, A. 1, Socha, J.J. 3, and S.P. Roberts 2, 1Department of Biology, The University of Western Ontario, London, ON, Canada, 2School of Life Sciences, University of Nevada Las Vegas, Las Vegas, NV, USA, 3Advanced Photon Source, Argonne National Laboratory, IL,USA.
Using synchrotron x-rays to observe freezing processes in insects. [page 15]

Lam, F. 1 and B.C. Donly 1,2, 1Department of Biology, University of Western Ontario, London, ON, Canada, 2 Southern Crop Protection and Food Research Centre, Agriculture and Agri-Food Canada, London, ON, Canada.
Expression of octopamine receptor genes in the cabbage looper, Trichoplusia ni. [page 16]

12:00 – 1:10 pm  Lunch Break: Outside Newman Room
1:10 pm  
Li, Z.\(^1,2\), Lucarotti, C.\(^3\), Krell, P.J.\(^2\) and B.M. Arif\(^1\), \(^1\) Laboratory for Molecular Virology, Great Lakes Forestry Centre, Sault Ste. Marie, ON, Canada, \(^2\) Department of Molecular and Cellular Biology, University of Guelph, Guelph, ON, \(^3\) Atlantic Forestry Centre, Fredericton, NB, Canada.  
**Comparative sequence analysis of two entomopoxviruses (EPVs). [page 17]**

1:30 pm  
Cusson, M.\(^1,2\), Lapointe, R.\(^1,3\), Tanaka, K.\(^4,5\), Rasoolizadeh, A.\(^1,2\) and B.A. Webb\(^4\), \(^1\) Natural Resources Canada, Canadian Forest Service, Quebec City, QC, Canada, \(^2\) Département de biologie, Université Laval, Québec, QC, Canada, \(^3\) Sylvar Technologies Inc., PO Box 636, Stn A, Fredericton, NB, Canada, \(^4\) Department of Entomology, University of Kentucky, Lexington, KY, USA, \(^5\) Institute for Biological Resources and Functions, National Institute of Advanced Industrial Sciences and Technology, Tsukuba, Ibaraki 305-8566, Japan  
**Analysis of the genomes of two polydnaviruses transmitted by ichneumonid wasps to the eastern spruce budworm, *Choristoneura fumiferana*. [page 18]**

1:50 pm  
Hodgson, J.J.\(^1\), Arif, B.M.\(^2\) and P.J. Krell\(^1\), \(^1\) Department of Molecular and Cellular Biology, University of Guelph, Guelph, ON, \(^2\) Laboratory for Molecular Virology, Great Lakes Forestry Centre, Sault Ste Marie, Canada.  
**The AcMNPV and CfMNPV v-cath genes are expressed as preproenzymes. [page 19]**

2:10 pm  
de Jong, J.\(^1\), Arif, B.M.\(^2\), Theilmann, D.\(^3\) and P.J. Krell\(^1\), \(^1\) Dept. of Molecular and Cellular Biology, University of Guelph, Guelph, ON, \(^2\) Great Lakes Forestry Centre, Natural Resources Canada, Sault Ste. Marie, ON, \(^3\) Pacific Agri-Food Research Centre, Agriculture and Agri-Food Canada, Summerland, BC, Canada.  
**The role of ME53 in baculovirus infection. [page 20]**

2:30 – 2:55 pm  
**Short Exposures** (5 minutes plus questions)  
Simmons, J.S.\(^1\) and B.C. Donly\(^1,2\),  
\(^1\) Department of Biology, University of Western Ontario, London, ON,  
\(^2\) Southern Crop Protection and Food Research Centre, AAFC, London ON, Canada  
**MDR protein-mediated multiple xenobiotic resistance in the cabbage looper moth, *Trichoplusia ni*. [page 21]**

Li, L.\(^1,2\), Ladd, T.\(^1\), Zheng, S.\(^1,2,3\), Krell, P.J.\(^2\), Arif, B.M.\(^1\), Retnakaran, A.\(^1\), Basham, D.\(^1\), Zhang, D.\(^1,2\), Zheng, Y.\(^1,2\), Dinakar, A.R.\(^1,2\), Quan, G.\(^1,2\), Buhlers, D.\(^1\), Tomkins, B.L.\(^1\), Feng, Q.\(^1,3\) and D. Doucet\(^1\), \(^1\) Great Lakes Forestry Centre, Canadian Forest Service, Sault Ste. Marie, ON, Canada; \(^2\) Department of Molecular and Cellular Biology, University of Guelph, Guelph, ON, Canada; \(^3\) School of Life Sciences, South China Normal University, Guangzhou, China.
Mining of the Great Lakes Forestry Centre spruce budworm Expressed Sequence Tag database. [page 22]

da Silva, R. and A.B. Lange, Department of Biology, University of Toronto Mississauga, Mississauga, ON, Canada.
Sensory cells associated with the spermathecal sac of Locusta migratoria. [page 23]

Robertson, L. and A.B. Lange, Department of Biology, University of Toronto Mississauga, Mississauga, ON, Canada.
Allatostatins are involved in the control of the gut of the locust. [page 24]

2:55 – 3:20 pm  Coffee Break

Session Chair:  Basil Arif

3:20 pm  Dehghani, M., Shoemaker, K.L. and R.M. Robertson, Department of Biology, Queen’s University, Kingston, ON, Canada.
Protein expression pattern in the central nervous system of Locusta migratoria following heat shock. [page 25]

3:40 pm  Te Brugge, V., Ianowski, J.P., Paluzzi, J.-P. and I. Orchard, Department of Biology, University of Toronto Mississauga, Mississauga, ON, Canada.
Activity of diuretic factors on the anterior mid-gut of the blood-feeding bug, Rhodnius prolixus. [page 26]

4:00 pm  Paluzzi, J.P., Ianowski, J.P. and I. Orchard, Department of Biology, University of Toronto Mississauga, Mississauga, ON, Canada.
The anti-diuretic peptide, RhoprCAPA-2, is a multi-targeting peptide encoded by two genes with dissimilar spatial and temporal expression profiles in the insect disease vector, Rhodnius prolixus. [page 27]

4:20 pm  End of Session

6:00 pm  Reception, Treadwells Farm-to-Table Cuisine, Port Dalhousie

7:00 pm  Conference Dinner, Treadwell Farm-to-Table Cuisine, Port Dalhousie
Friday, June 13

8:00 – 9:00 am  Breakfast: Outside Newman Room (Full Canadian)

Session Chair:  Stephen Tobe

9:00 am  Staniscuaski, F.\textsuperscript{1,2}, Te Brugge, V.\textsuperscript{3}, Carlini, C.R.\textsuperscript{1,2} and I. Orchard\textsuperscript{3},\textsuperscript{1}Center of Biotechnology and 2Department of Biophysics, Universidade Federal do Rio Grande do Sul, Brazil.\textsuperscript{3}Department of Biology, University of Toronto Mississauga, ON, Canada.
\textbf{Effect of jack bean urease and the urease-derived peptide Jaburetox-2Ec on Rhodnius prolixus gut.} [page 28]

9:20 am  Chapleau, M., Weech, M.-H., Pan, L., Ide, C. and J.C. Bede, Department of Plant Science, McGill University, Ste-Anne-de-Bellevue, QC, Canada.
\textbf{Caterpillars undermine Arabidopsis induced defenses by cross-talk through signaling pathways.} [page 29]

9:40 am  Rajamohan, A. and B.J. Sinclair, Department of Biology, The University of Western Ontario, London, ON, Canada.
\textbf{Effect of dietary supplements on cold tolerance in Drosophila melanogaster.} [page 30]

10:00 am  Chiang, R.G.\textsuperscript{1} and M.J. O’Donnell \textsuperscript{2}, \textsuperscript{1}Biology Department, Redeemer University College, Ancaster, ON, \textsuperscript{2}Biology Department, McMaster University, Hamilton, ON, Canada.
\textbf{The effect of proctolin on spontaneous contractions of the vagina in the blood-feeding insect, Rhodnius prolixus.} [page 31]

10:20 – 10:50 am  Coffee Break: Outside Newman Room

Session Chair:  Michael O’Donnell

10:50 am  Zheng, Y.\textsuperscript{1,2}, Bowman, S.\textsuperscript{1,2}, Tomkins, B.\textsuperscript{1}, Krell, P.J.\textsuperscript{2}, Arif, B.M.\textsuperscript{1} and D. Doucet \textsuperscript{1}, \textsuperscript{1}Great Lakes Forestry Centre, Canadian Forest Service, Sault Ste. Marie, ON, \textsuperscript{2}Department of Molecular and Cellular Biology, University of Guelph, Guelph, ON, Canada
\textbf{Cloning and characterization of a serine proteinase (Sep-I) from the molting fluid of spruce budworm prepupae.} [page 32]

11:10 am  Perera, S.C\textsuperscript{1,2}, Krell, P.J.\textsuperscript{2} and B.M. Arif\textsuperscript{1}, \textsuperscript{1}Laboratory for Molecular Virology, Great Lakes Forestry Centre, Sault Ste. Marie, ON, \textsuperscript{2}Department of Molecular and Cellular Biology, University of Guelph, Guelph, ON, Canada.
\textbf{Characterization of the Amsacta moorei entomopoxvirus spheroidin promoter.} [page 33]
11:30 am  Yang, D.-H. 1, de Jong, J.G. 1, Arif, B.M. 2 and P.J. Krell 1, 1Department of Molecular and Cellular Biology, University of Guelph, Guelph, ON, 2Great Lakes Forestry Centre, Sault Ste. Marie, ON, Canada.  
**Comparative gene expression analysis of the baculovirus Choristoneura fumiferana multicapsid nucleopolyhedrovirus (CfMNPV) and a knock-out mutant.** [page 34]

11:50 am  Quan, G. 1,2, Doucet, D.1, Krell, P.J.2 and B.M. Arif 1, 1 Great Lakes Forestry Centre, Canadian Forest Service, Sault Ste. Marie, ON, 2 Department of Molecular and Cellular Biology, University of Guelph, Guelph, ON, Canada.  
**Characterization of the Choristoneura fumiferana Receptor of activated C kinase 1 (CfRACK1) promoter.** [page 35]

12:10 – 1:30 pm  Lunch Break: Outside Newman Room

**Session Chair:**  Andrew Donini

1:30 pm  Hult, E.F., Weadick, C.J., Chang, B.S.W and S.S. Tobe, Department of Cell and Systems Biology, University of Toronto, Toronto, ON, Canada.  
**Reconstruction of ancestral FGLamide-type insect allatostatins: a novel approach to the study of allatostatin function and evolution.** [page 36]

1:50 pm  Tiu S.H.K. 1,2, Tobe S. S.1 and S.-M. Chan 2, 1 Department of Cell and Systems Biology, University of Toronto, Toronto, ON, Canada, 2 School of Biological Sciences, The University of Hong Kong, Pokfulam Rd., Hong Kong, China.  
**Molecular characterization of a shrimp vitellogenin receptor involved in the processing of vitellogenin: from the sites of synthesis to the final storage in the ovary.** [page 37]

2:10 pm  Kai, Z. 1, Tobe, S.S. *2, Ling, Y. 1, Zhang, L. 1, Zhang, J. 2, Xie, Y. 1, Zhao, Y. and X. Yang *1, 1 Department of Applied Chemistry, College of Science, China Agricultural University, Beijing, P. R. China, 2 Department of Cell and Systems Biology, University of Toronto, Toronto, ON, Canada.  
**Discovery of new insect growth regulators: allatostatin analogs and their inhibition mechanism.** [page 38]

2:30 pm  Lenkic, L.E., Tiu, S. and S.S. Tobe, Department of Cell and Systems Biology, University of Toronto, Toronto, ON, Canada.  
**Effects of analogue treatment on the control of JH biosynthesis during the gonadotrophic cycle of Diploptera punctata.** [page 39]

2:50 – 3:00 pm  Closing Remarks

3:00 – 3:30 pm  **Coffee Break and Farewells:** Outside Newman Room

3:30 pm  **End of Conference**