Insect Biotech Conference – 2015

Conference Schedule

Wednesday Evening – June 3

6:00 pm  Registration: Outside Newman Room

7:00 pm  Plenary Talk: Newman Room
“JUVENILE HORMONE SYNTHESIS AND REPRODUCTION IN MOSQUITOES” [Page 1]
Fernando G. Noriega.
Department of Biological Sciences, Florida International University, Miami, Fl, USA. http://biology.fiu.edu/people/faculty/fernando-noriega/

7:45 – 9:00 pm  Reception: Outside Newman Room (Pizzeria, Beer and Wine)

Thursday, June 4

7:45 – 9:00 am  Breakfast: Topaz Room (The All Canadian)

9:00 am  Opening Remarks: Ian Orchard

Session Chair: Ian Orchard

9:10 am  THE PRESENCE AND FUNCTIONS OF INSULIN-LIKE PEPTIDES IN RHODNIUS PROLIXUS. [Page 2]
Defferrari, M.S., Orchard, I. and Lange, A.B.
Department of Biology, University of Toronto Mississauga, Mississauga, ON, Canada.

9:30 am  ISOLATION AND CHARACTERIZATION OF CORTICOTROPIN RELEASING FACTOR-LIKE DIURETIC HORMONE RECEPTOR IN RHODNIUS PROLIXUS. [Page 3]
Department of Biology, University of Toronto Mississauga, Mississauga, ON

9:50 am  CAPA PEPTIDE BIOLOGY IN ADULT MOSQUITOES: AN ANTI-DIURETIC FACTOR IN Aedes aegypti. [Page 4]
AlDhaheri, A., Uyuklu, A. Bhatt, G. and Paluzzi J.P.
Department of Biology, York University, Toronto, ON, Canada.

10:10 am  A PROTEIN EXPRESSION ANALYSIS OF THE LEUCINE-RICH REPEATS-CONTAINING GPCR, LGRI, IN THE ADULT YELLOW FEVER MOSQUITO, I. [Page 5]
Rocco, D.A., Kim, D.H. and Paluzzi J.P.
Department of Biology, York University, Toronto, ON, Canada.

10:30 – 10:50 am  Coffee Break: Outside Newman Room
Session Chair: Angela Lange

10:50 am  
SECRETION OF Na⁺, K⁺ AND FLUID BY THE MALPIGHIAN TUBULE OF THE LARVAL CABBAGE LOOPER, TRICHOPLUSIA NI. [Page 6]  
Ruiz-Sanchez, E.¹, O’Donnell, M.J.¹, and Donini, A.²  
¹ Department of Biology, McMaster University. ² Department of Biology, York University.

11:10 am  
EXPRESSION AND dsRNA KNOCKDOWN OF PUTATIVE AMMONIA TRANSPORTERS IN LARVAL MOSQUITO, Aedes aegypti. [Page 7]  
Chasiotis H.¹, Ionescu A.¹, Bui P.¹, Misyura L.¹, Weihrauch D.², and Donini A.¹  
¹ Department of Biology, York University, Toronto, Canada  
² Department of Biological Sciences, University of Manitoba, Winnipeg, Canada

11:30 am  
THE INVOLVEMENT OF SULFAKININS IN THE CONTROL OF FEEDING IN RHODNIUS PROLIXUS. [Page 8]  
Al-Alkawi, H., Lange, A. B. and Orchard, I.  
Department of Biology, University of Toronto Mississauga, Mississauga, ON, Canada.

11:50 am  
MECHANISMS OF PROCTOLIN-INDUCED CONTRACTIONS IN DROSOPHILA. [Page 9]  
Mercier, A.J., Shahid, M., Jung, J., Brown, C., and Ormerod, K.  
Department of Biological Sciences, Brock University, St. Catharines, ON, Canada.

12:10 – 1:20 pm  
Lunch Break: Topaz Room (Bagel Bar)

Session Chair: Michael O’Donnell

1:20 pm  
K⁺ AND H⁺ TRANSPORT MECHANISMS OF THE DROSOPHILA GUT EPITHELIA. [Page 10]  
D’Silva, N.M. and O’Donnell, M.J.  
Department of Biology, McMaster University, Hamilton, ON, Canada.

1:40 pm  
CALCIUM TRANSPORT BY ISOLATED MALPIGHIAN TUBULES OF DROSOPHILA MELANOГASTER. [Page 11]  
Browne, A. A. and O’Donnell, M.J.  
Department of Biology, McMaster University, Hamilton, ON, Canada.

2:00 pm  
EFFECTS OF ALTERED EXPRESSION OF THE KEAP1/CNCC PATHWAY ON SECRETION OF ORGANIC TOXINS BY MALPIGHIAN TUBULES OF DROSOPHILA MELANOГASTER. [Page 12]  
Kaas, M.H.L. and O’Donnell, M.J.  
Department of Biology, McMaster University, Hamilton, ON, Canada.

2:20 pm  
AN EXTRACELLULARLY RECORDED SYNAPTIC POTENTIAL ASSOCIATED WITH MOTOR NERVES OF VAGINA MUSCLES IN THE INSECT VECTOR OF CHAGAS DISEASE, RHODNIUS PROLIXUS. [Page 13]  
Chiang, R.G.  
Biology Department, Redeemer University College, Ancaster, ON, Canada.
2:40 – 3:00 pm  Coffee Break

Session Chair:  Joffre Mercier

3:00 pm  CHARACTERIZATION OF LONG NEUROPEPTIDE F (NPF) AND ITS ROLE IN FEMALE REPRODUCTION OF THE CHAGAS DISEASE VECTOR, RHODNIUS PROLIXUS. [Page 14]
Sedra, L. and Lange, A.B
Department of Biology, University of Toronto Mississauga, Ontario, Canada

3:20 pm  IDENTIFICATION AND CHARACTERIZATION OF THE ADIPOKINETIC HORMONE/CORAZONIN-RELATED PEPTIDE (ACP) SIGNALING SYSTEM IN RHODNIUS PROLIXUS. [Page 15]
Zandawala, M., Haddad, A., Hamoudi, Z. and Orchard, I.
Department of Biology, University of Toronto Mississauga, Mississauga, Canada.

3:40pm  ISOLATION AND CHARACTERIZATION OF THE CORAZONIN RECEPTOR IN THE KISSING BUG, RHODNIUS PROLIXUS. [Page 16]
Hamoudi, Z., Orchard, I. and Lange, A.B.
Department of Biology, University of Toronto Mississauga, Mississauga, Ontario, Canada.

4:00pm  End of Session

6:00 pm  Ravine Vineyard Estate Winery, 1366 York Rd, St. Davids, ON, L0S 1P0, (Historic Wine Tour & Tasting)

7:15 pm  Conference Dinner, Ravine Vineyard Estate Winery, 1366 York Rd, St. Davids, ON, L0S 1P0
Four Points by Sheraton St. Catharines Niagara Suites
3530 Schmon Parkway, Thorold, ON L2V 4Y6

Continue to St David's Rd/Regional Rd 71

1. Head northwest toward Schmon Pkwy

2. Turn right onto Schmon Pkwy

Take Glendale Ave/Regional Rd 89 to York Rd/Niagara Regional Rd 81 in Niagara-on-the-Lake

3. Turn right onto St David's Rd/Regional Rd 71
   Continue to follow St David's Rd

4. Continue straight to stay on St David's Rd (signs for ON-406 N)

5. Take the ramp onto ON-406 N

6. Take the Regional Road 89/Glendale Avenue exit

7. Turn right onto Glendale Ave/Regional Rd 89

8. Turn right onto York Rd/Niagara Regional Rd 81
   Destination will be on the left

Ravine Vineyard Estate Winery
1365 York Road, St. Davids, ON L0S 1P0
Friday, June 5

7:45 – 9:10 am  Breakfast: Topaz Room (The All Canadian)

Session Chair:  Daniel Doucet

9:10 am  ORAL ADMINISTRATION OF TAT-PTD–DIAPAUSE HORMONE FUSION PROTEIN INTERFERES WITH HELICOVERPA ARMIGERA DEVELOPMENT. [Page 17]
Zhou, Z., Li, Y., Yuan, C., Zhang, Y. and Qu, L.
1 College of Forestry, Henan University of Science and Technology, China
2 Key Laboratory of Forest Protection, State Forestry Administration, Research Institute of Forest Ecology, Environment and Protection, Chinese Academy of Forestry, Beijing, China.

9:30 am  POSSIBLE ROLES OF ME53 IN BACULOVIRUS TRANSCRIPTIONAL REGULATION. [Page 18]
Liu, Y., Nagy, E. and Krell, P.J.
1 Department of Molecular and Cellular Biology
2 Department of Pathobiology, University of Guelph, Guelph, ON, Canada.

9:50 am  MEASURING THE MAMESTRA CONFIGURATA NUCLEOPOLYHEDROSIS VIRUS TRANSCRIPTOME: A TALE OF TWO TECHNOLOGIES. [Page 19]
Donly, B.C., Theilmann, D.A., Hegedus, D.D., Baldwin, D. and Erlandson, M.A.
1 Southern Crop Protection & Food Research Centre, AAFC, London, ON Canada
2 Pacific Agri-Food Research Centre, AAFC, Summerland, B.C. Canada
3 Saskatoon Research Centre, AAFC, Saskatoon, SK, Canada

10:10 – 10:30 am  Coffee Break: Outside Newman Room

Session Chair:  Jean-Paul Paluzzi

10:30 am  TRANSCRIPTOME ANALYSIS OF THE EMERALD ASH BORER (EAB), AGRILUS PLANIPENNIS: DE NOVO ASSEMBLY, FUNCTIONAL ANNOTATION AND COMPARATIVE ANALYSIS. [Page 20]
Duan, J., Ladd, T., Doucet, D., Cusson, M., van Frankenhuyzen, K., Mittapalli, O., Krell, P.J. and Quan, G.
1 Great Lakes Forestry Centre, Natural Resources Canada, Sault Ste. Marie, Ontario, Canada; 2 Laurentian Forestry Centre, Canadian Forest Service, Natural Resources Canada, Québec City, Québec, Canada; 3 Department of Entomology, Ohio Agricultural and Research Development Center, The Ohio State University, Wooster, Ohio, United States of America; 4 Department of Molecular and Cellular Biology, University of Guelph, Guelph, Ontario, Canada.

10:50 am  ADVENTURES IN INSECT CELL LINE DEVELOPMENT: ESTABLISHMENT OF TWO BEETLE CELL LINES AND STUDY OF THEIR RESPONSE TO CHEMICAL INSECTICIDES. [Page 21]
Wen, F., Caputo, G., Hooey, S., Bowman, S., Pinkney, K., Krell, P.J., Arif, B., Duan, J., Quan, G. and Doucet, D.
1 Department of Molecular & Cellular Biology, University of Guelph, Guelph, Ontario, Canada, N1G 2W1
2 Canadian Forest Service, Natural Resources Canada, 1219 Queen St. East, Sault Ste Marie, Ontario, Canada, P6A 2E5
11:10 am  ECDYSONE INDUCTION AND CHITIN-BINDING PROPERTIES OF THE
CHORISTONEURA FUMIFERANA CHITIN DEACETYLASE 2. [Page 22]
Quan, G., Duan, J., Doucet, D., Ladd, T., Cusson, M., and Krell, P.J.
1 Great Lakes Forestry Centre, Natural Resources Canada, Sault Ste. Marie, ON, Canada.
2 Department of Molecular and Cellular Biology, University of Guelph, Guelph, ON, Canada.
3 Laurentian Forestry Centre, Natural Resources Canada, Québec City, Québec, Canada.

11:30 - 12:00 noon  Check out of hotel rooms

11:45 – 1:00 pm  Lunch Break: Topaz Room (Pasta Buffet)

Session Chair:  Andrew Donini

1:00 pm  THE EFFECTS OF THE ENTOMOTOXIN JACKBEAN UREASE ON INSECT
NEUROMUSCULAR SYSTEM. [Page 23]
Freitas, T.C., Orchard, I., Lange, A.B., and Carlini, C.R.
1 Department of Biology, University of Toronto Mississauga, Mississauga, ON, Canada; 2 Center of Biotechnology, Universidade Federal do Rio Grande do Sul, and Brain Institute, Pontificia Universidade Catolica do Rio Grande do Sul, Porto Alegre, Brazil.

1:20 pm  FLIGHTS OF FANCY: CHEMICAL ECOLOGY OF NEOTROPICAL
CYCADS (ZAMIACEAE) AND THEIR LEAF HERBIVORES. [Page 24]
Prado, A., Chatel-Launay, N., Windsor, D. and Bede, J.C.
Plant Science, McGill University, Montreal, QC, Canada

1:40 pm  NEUROPEPTIDERIC CONTROL OF FEEDING IN STARFISH:
CHARACTERIZATION OF THE SALMFAMIDE SIGNALING SYSTEM.
[Page 25]
Zandawala, M., Egertová, M., Rowe, M. and Elphick, M.
School of Biological & Chemical Sciences, Queen Mary University of London, London, UK

2:00 – 2:10pm  Closing Remarks

2:10 pm  End of Conference