

Insect Biotech Conference–2007

Conference Schedule

Wednesday Evening – June 13

- 6:00 pm **Registration:** Outside Newman Room
- 7:00 pm **Plenary Talk:** Newman Room
Prof. Ken Davey, York University
**The Two Cambridges and the Foundations of Insect Physiology /
Endocrinology.**
- 7:45 – 10:00 pm **Reception:** Outside Newman Room

Thursday, June 14

- 8:50 am **Opening Remarks:** Ian Orchard
- Session Chair: Ian Orchard
- 9:00 am Donly, C., Verellen, L.A., Cladman, W. and S. Caveney (Southern Crop Protection and Food Research Centre, Agriculture and Agri-Food Canada and Department of Biology, University of Western Ontario) **Structure and function of insect octopamine transporters.**
- 9:20 am Paluzzi, J.-P., Nachman, R.J. and I. Orchard (Department of Biology, University of Toronto Mississauga and Southern Plains Agricultural Research Center, USDA) **Identification and expression analysis of a gene encoding CAP2b/CAPA-related peptides in the hematophagous insect, *Rhodnius prolixus*.**
- 9:40 am Nuss, A.B., Forschler, B.T., Crim, J.W. and M. R. Brown (Department of Entomology, University of Georgia) **Neuropeptide F from the termite, *Reticulitermes flavipes* (Isoptera: Rhinotermitidae).**
- 10:00 am Gonzalez, R.G. and I. Orchard (Department of Biology, University of Toronto Mississauga) **Characterization of neuropeptide F-like material in the hemipteran, *Rhodnius prolixus*.**
- 10:20 – 10:50 am **Coffee Break:** Outside Newman Room
- Session Chair: Angela Lange
- 10:50 am D'Souza, O., Rheault, M., Caveney, S. and C. Donly (Southern Crop Protection and Food Research Centre, Agriculture and Agri-Food Canada, London , Department of Biology, University of Western Ontario and The Whitney Laboratory, St. Augustine, Florida) **Cloning and expression of multidrug resistance genes in the cabbage looper moth, *Trichoplusia ni*.**

- 11:10 am Li, L., Zheng, S., Ladd, T., Zhang, D., Buhlers, D., Krell, P.J., Arif, B., Feng, Q. and D. Doucet (Canadian Forest Service, Great Lakes Forestry Centre, Sault Ste. Marie) **Progress on the development of an EST database for the spruce budworm, *Choristoneura fumiferana*.**
- 11:30 am Quan, G., Doucet, D., Krell, P.J. and B. M. Arif (Great Lakes Forestry Centre, Canadian Forest Service, Sault Ste. Marie and Department of Molecular and Cellular Biology, University of Guelph) **Cloning and characterization of a protein kinase C from the spruce budworm, *Choristoneura fumiferana***
- 11:50 – 12:20 pm **Short Exposures** (5 minute talks plus questions)
- Te Brugge, V. and I. Orchard (Department of Biology, University of Toronto Mississauga) **Evidence for AST-like neuropeptide acting as a neurohormone in the blood-feeding bug, *Rhodnius prolixus*.**
- Scasso, F., Darwish, S., Pan, L. and J.C. Bede (University of Montpellier, France and Department of Plant Science, McGill University) **Early plant transcriptional responses to *Spodoptera exigua* caterpillar herbivory.**
- Afshar, K., Pan, L., Babic, B., Poisson, A., Darwish, S., Lacasse, J. Merckx-Jacque, M., Despland, E. and J.C. Bede (Department of Plant Science, McGill University) **Effect of diet on expression of caterpillar salivary genes.**
- Lawal, O.A (Department of Plant science and Applied Zoology, Olabisi Onabanjo University, Nigeria) **A survey of pests and visitors associated with honeybee, *Apis mellifera adansonii*, in southwestern Nigeria.**
- 12:20 – 1:50 pm **Lunch Break:** Outside Newman Room
- Session Chair: Eric Carstens
- 1:50 pm Pavlik, L. and B. Arif (Laboratory for Molecular Virology, Great Lakes Forestry Centre, Sault Ste. Marie) **The infection and pathogenesis of the *Amsacta moorei* entomopoxvirus in *Lymantria dispar* larvae.**
- 2:10 pm Perera, S., Wong, P., Rossi, K., Krell, P. and B. Arif (Great Lakes Forestry Centre, Sault Ste. Marie, Department of Microbiology, University of Guelph, and Queens University) **Infection of two lepidopteran cell lines with *Amsacta moorei* entomopoxvirus and induction of apoptosis.**
- 2:30 pm **Short Exposures** (5 minutes plus questions)
- Dehghani, M., Shoemaker, K.L. and M. R. Robertson (Department of Biology, Queen's University) **Identification of proteins in the central nervous system of *Locusta migratoria* following heat shock.**

Au, V. and E. Carstens (Department of Microbiology and Immunology, Queen's University) **Searching for the key amino acids essential for nuclear localization of the baculovirus late expression factor 3 (LEF-3).**

Chang, M.-J., Krell, P.J., and B. M. Arif (Great Lakes Forestry Centre, Sault Ste. Marie and Department of Molecular and Cellular Biology, University of Guelph) **Characterization of spontaneous cell syncytia induced by AMEV infections.**

3:00 – 3:30 pm **Coffee Break**

Session Chair: Basil Arif

3:30 pm Escasa, S.R., Arif, B.M., Myers, J.H. and J. S. Cory (Laboratory for Molecular Ecology, Great Lakes Forestry Centre, Sault Ste. Marie, Algoma University College, Sault Ste. Marie, Laboratory for Molecular Virology, Great Lakes Forestry Centre, Sault Ste. Marie, and Centre for Biodiversity Research, Department of Zoology, University of British Columbia) **Gene organization and content of the western tent caterpillar, *Malacosoma californicum pluviale* nucleopolyhedrovirus.**

3:50 pm Slack, J.M., Lawrence, S.D., Krell, P.J. and B.M. Arif (Great Lakes Forestry Centre, Sault STE Marie, US Department of Agriculture, Beltsville, and Department of Molecular and Cellular Biology, University of Guelph) **The baculovirus occlusion-derived virus envelope protein P74 requires trypsin cleavage for function.**

4:10 pm Yu, M. and E.B. Carstens (Department of Microbiology and Immunology, Queen's University) **The role of baculovirus P143/LEF-3 complex in DNA replication.**

4:30 pm **End of Session**

6:00 pm **Reception, Vineland Estates Winery**

7:00 pm **Conference Dinner, Vineland Estates Winery**

Friday, June 15

Session Chair: Stephen Tobe

9:00 am Donini, A., O'Donnell, M.J. and I. Orchard (Department of Biology, University of Toronto Mississauga and Department of Biology, McMaster University) **CRF and calcitonin-like peptides modulate ion composition of secreted fluid from the upper Malpighian tubule of *Rhodnius prolixus*, but fail to activate K^+ reabsorption by the lower tubule.**

9:20 am Chahine, S. and M.J. O'Donnell (Department of Biology, McMaster University) **Characterization of the transepithelial transport of the MRP2 substrate methotrexate by the Malpighian tubules of *Drosophila melanogaster*.**

9:40 am Leonard, E.M., Pierce, L.M., Wood, C.M. and M.J. O'Donnell (Department of Biology, McMaster University) **Identification of mechanisms involved in high cadmium tolerance in *Chironomus riparius*.**

10:00 am Staniscuaski, F., Te Brugge, V., Carlini, C.R. and I. Orchard (Center of Biotechnology and Depto of Biophysics, Universidade Federal do Rio Grande do Sul, Brazil and Department of Biology, University of Toronto at Mississauga) **Effect of *Canavalia ensiformis* urease and the derived peptide Jaburetox 2Ec on *Rhodnius prolixus* Malpighian tubules.**

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

Session Chair: Michael O'Donnell

10:50 am Clark, L., Lange, A.B., Tobe, S.S., and J.R. Zhang (Department of Biology, University of Toronto Mississauga and Department of Cell and Systems Biology, University of Toronto) **Proctolin and Dippu-allatostatin: Neuropeptides with possible pleiotropic roles within *Locusta*.**

11:10 am Burtenshaw, S.M. and W.G. Bendena (Department of Biology, Queen's University) **Overexpression of farnesoic acid *o*-methyltransferase (FAMeT) and juvenile hormone acid methyltransferase (JHAMT) in *Drosophila melanogaster*.**

11:30 am Lungchukiet, P., Donly, B.C., Zhang, J., Tobe, S.S. and W.G. Bendena (Department of Biology, Queen's University, Southern Crop Protection and Food Research Centre, Agriculture and Agri-Food Canada, London, and Department of Cell and Systems Biology, University of Toronto) **Molecular cloning and characterization of an allatostatin-like receptor in the cockroach *Diploptera punctata*.**

- 11:50 – 12:10pm **Short Exposures** (5 minutes plus questions)
- Woodward, D.T., Kemp, E.M. and J. S. Cory (Department of Molecular and Cellular Biology, University of Guelph, Great Lakes Forestry Centre, Canadian Forest Service, Sault Ste. Marie, and Biology Department, Algoma University College, Sault Ste. Marie) **Novel molecular techniques for the detection, differentiation and quantitation of baculoviral infections.**
- Li, Z. , Coppens, M.E., Krell, P.J. and B. M. Arif (Laboratory for Molecular Virology, Great Lakes Forestry Centre, Sault Ste. Marie, and Department of Molecular and Cellular Biology, University of Guelph) **Comparative study of the sequence of *Choristoneura biennis* entomopoxvirus.**
- Coppens, M.E., Krell, P. and B. M. Arif (Laboratory for Molecular Virology, Great Lakes Forestry Centre, Sault Ste. Marie, and Molecular and Cellular Biology, University of Guelph) **Proteomic techniques to identify the structural proteins of the occlusion derived virus of *Neodiprion abietis* nucleopolyhedrovirus (NeabNPV).**
- 12:10 – 1:40 pm **Lunch Break:** Outside Newman Room
- Session Chair: Andrew Donini
- 1:40 pm da Silva, R. and A.B. Lange (Department of Biology, University of Toronto Mississauga) **Evidence of the association of tyramine with the spermatheca of the migratory locust.**
- 2:00 pm Chiang, R.G. and M. J. O'Donnell (Biology Department, Redeemer University College and Biology Department, McMaster University) **Neurally-evoked contractions of the bursa copulatrix in the blood-feeding insect, *Rhodnius prolixus*.**
- 2:20 pm Lenkic, L.E. and S.S. Tobe (Department of Cell and Systems Biology, University of Toronto) **The control of JH biosynthesis during the gonadotrophic cycle of mated female *Diploptera punctata*: Clues from JH analogue treatment.**
- 2:40 – 2:50 pm **Closing Remarks**
- 2:50 – 3:20 pm **Coffee Break and Farewells:** Outside Newman Room
- 3:20 pm **End of Conference**