CURRICULUM VITAE

Jeffrey R. Bloomquist

Address

Neurotoxicology Laboratory
Department of Entomology and Nematology
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Education

Ph. D., Entomology, University of California, Riverside, 1984
M. S., Entomology, Mississippi State University, 1981
B. S., Entomology, Purdue University, 1978

Experience

2009-Present:	Professor of Vector Management, Emerging Pathogens Institute, Dept. of Entomology and Nematology, University of Florida
2003-2009:	Professor of Toxicology and Pharmacology, Dept. of Entomology and Adjunct Professor of Chemistry, Department of Chemistry, Virginia Tech
2001-2003:	Associate Professor of Toxicology and Pharmacology, Dept. of Entomology and Adjunct Associate Professor of Chemistry, Department of Chemistry, Virginia Tech
1995-2001:	Associate Professor of Insect Physiology, Dept. of Entomology, Virginia Tech
1989-1995:	Assistant Professor of Insect Physiology, Dept. of Entomology, Virginia Tech
1988-1989:	Research Scientist, Rhone-Poulenc Ag Company, Research Triangle Park, NC
1987-1988:	Research Associate III, Dept. of Entomology, NYSAES, Cornell University
1984-1987:	Postdoctoral Associate, Dept. of Entomology, NYSAES, Cornell University

Fields of Research Specialization

Mode of action and neurotoxicity of synthetic insecticides, natural toxins, and drugs
Mechanisms of resistance to insecticides and nematicides

Teaching UF

ENY 6934 (9237) Insecticide Toxicology Seminar (2010)
ENY 6651C (1579) Insect Toxicology (2011, 2012, 2013)

Honors

John V. Osmun Alumni Professional Achievement Award in Entomology, Purdue Univ. (2009)
Virginia Tech, Fralin Institute Senior Faculty Fellow (2009)
Virginia Tech, CALS Award for Research Excellence in Basic Research (2006)
Gamma Sigma Delta, Honor Society of Agriculture, Research Award of Merit, Virginia Tech (2000)
Justin Morrill Award from the W. B. Alwood Entomological Society (Virginia Tech Department of Entomology graduate students), as recognition for teaching efforts (1997)
Postdoctoral Fellowship in Biotechnology, Cornell Biotechnology Program (1987)
Chancellor's Patent Fund Award, University of California, Riverside (1983)

Professional Affiliations

American Chemical Society, Division of Agrochemicals (1980-Present)

External Scientific Advisory Committee, Innovative Vector Control Consortium, Liverpool School of Tropical Medicine, Liverpool, U.K. (2007-present)

Editorial Boards

Invertebrate Neuroscience (2001-present)
Pesticide Biochemistry and Physiology (2007-present)
Associate Editor of *Pest Management Science* (2007-2012)
Executive Editor of *Pest Management Science* (2013-present)

Consulting

Zoetis Corporation (2013)
Pfizer Animal Health (2011-2012)
DuPont CropScience (2007, 2009)
Makhteshim-Agan of North America Inc. (2008)
Battelle Memorial Institute/U.S. government (2006)
BASF Agricultural Products, Research Triangle Park, North Carolina (2003-2005)
Stuart Calwell, Attorney at Law, PLLC, Charleston, West Virginia (2000-2003)
FMC Corporation, Princeton, New Jersey (1992-2003)
Eli Lilly Research Laboratories/DowElanco, Greenfield, Indiana (1990-1991)
Rhone-Poulenc Ag Co., Research Triangle Park, North Carolina (1989)

Laboratory Research Personnel

University of Florida (2010-present)
Completed Graduate Students: 3 (2 Ph.D., 1 M.S.)
Current Graduate Students: 2 (1 Ph.D., 1 M.S.)
Current Postdoctoral Research Scientists: 4
Current Technical/Fiscal Staff: 1
Virginia Tech (1989-2009)
Undergraduates (Undergraduate Research ENT 4994, work-study, summer interns): 27
Completed Graduate Students: 10 (5 M.S., 5 Ph.D.)
Postdoctoral Research Scientists: 8

Visiting Scientists

University of Florida (2010-present)
Dr. Sheena Francis, University of the West Indies, Jamaica (7/9/14)
Professor Jeff Scott, Cornell University, Ithaca NY (Jan-May, 2014)
Professor Steeve Thany, University of Angers, France, sabbatical (10/15/12-8/31/13)
Dr. Kumidini Meepagala, USDA, Oxford MS (1 week, 2011)

Virginia Tech (1989-2009)
Dr. Josef Braun, BASF Corp. Research Triangle Park, NC (2003)
Dr. Krishnappa Vankatesh, BASF Corp. Research Triangle Park, NC (2002)
Dr. Rathnam Chagaturu, FMC, Princeton, New Jersey (1998, 1999)
Mr. Lyle Kinne, FMC, Princeton, NJ (1998, 1999)
Dr. Jim Ottea, Dept. of Entomology, Louisiana State University, Baton Rouge, LA (1992)

Patents

"Insecticidal Carbamates Exhibiting Species-Selective Inhibition of Acetylcholinesterase (AChE)." P. Carlier, J. Bloomquist, E. Wong, and S. Paulson, submitted 9/12/08 (VTIP #142). The application was published on 3/12/09 and awarded 3/6/12 (US Patent No: 8,129,428), with a continuation awarded 12/31/13 (8,618,162 B2).

"Hormone-Induced Expression of Insecticide Target Proteins in Insect Cells." J. R. Bloomquist, F. Tong, and L. J. Jenson. A cover sheet provisional patent application was submitted 9/6/13 (UF #14900).

Grants, Contracts, and Grants-In-Aid
Total Sponsored Research (1989-present)

Sponsored Research, Total as P. I.	$ 6,868,646	
Sponsored Research, Total as Co-P. I.	$ 3,949,880	
Total	$ 10,818,526	(ca. $3,000,000 at UF since 2009)

Current active grants:

"Development of Vector-Specific, Resistance-Breaking Insecticides to Reduce Malaria Transmission."
Co-P.I., 8% effort (1 month salary), with Paul Carlier (P.I), Dept. of Chemistry, Virginia Tech; Jiangyong Li, Dept. of Biochemistry, Virginia Tech; and Maxim Totrov, Molsoft LLC, San Diego, CA.
Year: 2009
Duration: 5 years
Source: NIAID
Amount: $ 3,459,629 (no cost extension for 2014)

"Discovery and Development of New Public Health Pesticides."
P.I., 5% effort
Year: 2010
Duration: 5 years
Source: Deployed War Fighter Research Program, USDA Cooperative Research Agreement
Amount: $ 1,000,000 ($ 203,037 for 2014)

"Voltage-Sensitive Potassium Channel as a New Target for Mosquitocides"
P.I., 20% effort (2.4 months salary), with Paul Carlier, Dept. of Chemistry, Virginia Tech; and Maxim Totrov, Molsoft LLC, San Diego, CA.
Year: 2011
Duration: 3 years
Source: FNIH
Amount: $ 1,399,522 (no cost extension for 2014)

"Enhance Protection and Safety of the Nation's Agriculture and Food Supply"
P.I., 5% effort
Year: 2014
Duration: 12 months (renewable annually)
Source: USDA Cooperative Research Agreement
Total Award Amount: $ 54,500

Acquisition of a Biotek® Cytation 3 Cell Imaging Multimodal Plate Reader
P.I., 1% effort
Year: 2014
Source: UF Research Infrastructure Matching IFAS Grant (Office of the Dean for Research)
Total Award Amount: $ 50,000

RESEARCH AND SCHOLARLY PUBLICATIONS

Summary:

Publications/Year (last 5 years): 6/2009; 6/2010; 1/2011; 4/2012; 11/2013

Publication	Total
Book Chapters	6
Books/Proceedings Edited	4
Papers in Refereed Journals	64
Refereed Conference Proceedings	27
Reviews	10
Prefaces, Forwards, etc.	1
Published Patents	3
Numbered Extension Publications	1
Total Publications	116

Book chapters (*student co-author, #postdoc co-author)

1. D. M. Soderlund and J. R. BLOOMQUIST (1990) Molecular Mechanisms of Insecticide Resistance, in: "Pesticide Resistance in Arthropods" (R. Roush and B. Tabashnik, Eds.), pp. 58-96, Chapman and Hall, New York (refereed).
2. J. R. BLOOMQUIST (1999) Insecticides: Chemistries and Characteristics. In: Radcliffe's IPM World Textbook. (http://ipmworld.umn.edu/chapters/bloomq.htm). University of Minnesota
3. J. R. BLOOMQUIST (2001) GABA and Glutamate Receptors as Biochemical Sites for Insecticide Action and Resistance. In: "Biochemical Sites Important in Insecticide Action and Resistance," (I. Ishaaya, Ed.) Springer, Berlin, Germany, pp. 17-41. (peer reviewed).
4. D. Blodgett, M. Ehrich, and J. BLOOMQUIST (2002) Miscellaneous Pesticides with Action on the Nervous System. In: *Pesticides* section of the "Handbook of Neurotoxicology" Vol. 1 (E. Massaro, Exec. Ed.) pp. 91-103, Humana Press, Totowa, New Jersey.
5. J. R. BLOOMQUIST (2002) Agents Affecting Chloride Channels. In: *Pesticides* section of the "Handbook of Neurotoxicology" Vol. 1 (E. Massaro, Exec. Ed.) pp. 65-77, Humana Press, Totowa, New Jersey.
6. J. R. BLOOMQUIST (2004) "Insecticides." In: Chemistry Explained: Foundations and Applications. J. J. Lagowski, ed. Chemistry Encylopedia, Macmillan Library Reference (http://www.chemistryexplained.com/).

Books/Proceedings edited (*student co-author, #postdoc co-author)

1. M. Ehrich and J. R. BLOOMQUIST (2002) Co-editors of the *Pesticides* section (7 chapters) of the "Handbook of Neurotoxicology" Vol. 1 (E. Massaro, Exec. Ed.), pp. 3-103, Humana Press, Totowa, New Jersey.
2. J. M. Clark, J. R. BLOOMQUIST, and H. Kawada (2009) *ACS Symp. Ser* 1014, Advances in Human Vector Control. American Chemical Society, 241 pp., Washington, D.C. (2009)
3. J. R. BLOOMQUIST (2010) "Special Edition, Insecticidal Action." Proceedings of an American Chemical Society award symposium in honor of Dr. David M. Soderlund. *Pestic. Biochem. Physiol.* 97 (2) pp. 97-166.

4. T. D. Anderson, J. R. BLOOMQUIST, J. M. Clark, and D. M. Soderlund (2013) "Special Issue: Advances in Vector and Urban Pest Management and Resistance." Proceedings of an American Chemical Society award symposium. *Pestic. Biochem. Physiol.* 106 (3) pp. 75-198.

Papers in refereed journals (*student co-author, #postdoc co-author)

1. J. R. BLOOMQUIST and D. L. Shankland (1983) The Mode of Action and Neurotoxicity of Mirex, Chlordecone, and Four Hydrogenated Mirex Analogs. *Pestic. Biochem. Physiol.* 19, 235-242.
2. J. R. BLOOMQUIST and T. A. Miller (1985) Carbofuran Triggers Flight Motor Output in Pyrethroid-Blocked Reflex Pathways of the House Fly. *Pestic. Biochem. Physiol.* 23, 247-255.
3. J. R. BLOOMQUIST and D. M. Soderlund (1985) Neurotoxic Insecticides Inhibit GABA-Dependent Chloride Uptake by Mouse Brain Vesicles. *Biochem. Biophys. Res. Comm.* 133, 37-43.
4. J. R. BLOOMQUIST and T. A. Miller (1986) Sodium Channel Neurotoxins as Probes of the Knockdown Resistance Mechanism. *NeuroToxicology* 7(1), 217-224.
5. J. R. BLOOMQUIST, P. M. Adams, and D. M. Soderlund (1986) Inhibition of g-Aminobutyric Acid-Stimulated Chloride Flux in Mouse Brain Vesicles by Polychlorocycloalkane and Pyrethroid Insecticides. *NeuroToxicology* 7, 11-21.
6. J. R. BLOOMQUIST and T. A. Miller (1986) Neural Correlates of Flight Activation and Escape Behavior in Houseflies Recovering from Pyrethroid Poisoning. *Arch. Insect Biochem. Physiol.* 3, 551-560.
7. D. M. Soderlund, P. M. Adams, and J. R. BLOOMQUIST (1987) Differences in the Action of Avermectin B_{1a} on the $GABA_A$ Receptor Complex of Mouse and Rat. *Biochem. Biophys. Res. Comm.* 146, 692-698.
8. A. M. Stuart, J. R. BLOOMQUIST, and D. M. Soderlund (1987) Pharmacological Characterization of the Voltage-Dependent Sodium Channels of Rainbow Trout Brain Synaptosomes. Brain Res. 437, 77-82.
9. J. R. BLOOMQUIST and D. M. Soderlund (1988) Pyrethroid Insecticides and DDT Modify Alkaloid-Dependent Sodium Channel Activation and its Enhancement by Sea Anemone Toxin. *Mol. Pharmacol.* 33, 543-550.
10. J. R. BLOOMQUIST, D. M. Soderlund, and D. C. Knipple (1989) Knockdown Resistance to Dichlorodiphenyltrichloroethane and Pyrethroid Insecticides in the *nap^{ts}* Mutant of *Drosophila melanogaster* is Correlated with Reduced Neuronal Sensitivity. *Arch. Insect Biochem. Physiol.* 10, 293-302.
11. J. A. Ottea, G. T. Payne, J. R. BLOOMQUIST, and D. M. Soderlund (1989) Activation of Sodium Channels and Inhibition of [^{3}H]Batrachotoxinin A-20-a-Benzoate Binding by an *N*-Alkylamide Neurotoxin. *Mol. Pharmacol.* 36, 280-284.
12. J. R. BLOOMQUIST, R. E. Grubs, D. M. Soderlund, and D. C. Knipple (1991) Prolonged Exposure to GABA Activates GABA-Gated Chloride Channels in the Presence of Channel-Blocking Convulsants. *Comp. Biochem. Physiol.* 99C, 397-402.
13. J. BLOOMQUIST, R. Roush, and R. ffrench-Constant (1992) Reduced Neuronal Sensitivity to Dieldrin and Picrotoxinin in a Cyclodiene-Resistant Strain of *Drosophila melanogaster* (Meigen). *Arch. Insect. Biochem. Physiol.* 19, 17-25.
14. J. R. BLOOMQUIST (1992) Intrinsic Lethality of Chloride Channel-Directed Insecticides and Convulsants in Mammals. *Toxicol. Lett.* 60, 289-298.

15. S.-Z. Pang, S. M. Oberhaus, J. L. Rasmussen, D. C. Knipple, J. R. BLOOMQUIST, D. H. Dean, K. D. Bowman, and J. C. Sanford (1992) Expression of a Gene Encoding a Scorpion Insectotoxin Peptide in Yeast, Bacteria, and Plants. *Gene* 116, 165-172.

16. H. Lin, J. R. BLOOMQUIST, R. W. Beeman, and J. M. Clark (1993) Mechanisms Underlying Cyclodiene Resistance in the Red Flour Beetle, *Tribolium castaneum* (Herbst). *Pestic. Biochem. Physiol.* 45, 154-165.

17. J. R. BLOOMQUIST, J. L. Jackson, L. L. Karr, H. J. Ferguson, and R. P. Gajewski (1993) Spirosultam LY219048: A new chemical class of insecticide acting upon the GABA receptor/chloride ionophore complex. *Pestic. Sci.* 39, 185-192.

18. J. R. BLOOMQUIST (1994) Cyclodiene Resistance at the Insect GABA Receptor/Chloride Channel Complex Confers Broad Cross Resistance to Convulsants and Experimental Phenylpyrazole Insecticides. *Arch. Insect Biochem. Physiol.* 26, 69-79.

19. J. BLOOMQUIST, *E. King, *A. Wright, C. Mytilineou, K. Kimura, K. Castagnoli, and N. Castagnoli, Jr. (1994) 1-Methyl-4-Phenylpyridinium-Like Neurotoxicity of a Pyridinium Metabolite Derived from Haloperidol: Cell Culture and Neurotransmitter Uptake Studies. *J. Pharm. Exp. Ther.* 270, 822-830.

20. J. C. Matthews, E. A. Wong, P. K. Bender, J. R. BLOOMQUIST, and K. E. Webb (1996) Demonstration and characterization of dipeptide transport system activity in sheep omasal epithelium by expression of mRNA in *Xenopus laevis* oocytes. *J. Animal Sci.* 74, 1720-1727.

21. J. R. BLOOMQUIST, L. P. Kinne, V. Deutsch, and S. F. Simpson (1996) Mode of action of an insecticidal peptide toxin from the venom of a weaving spider (*Diguetia canities*). *Toxicon* 34, 1072-1075.

22. J. R. BLOOMQUIST, H. J. Ferguson, E. D. Cox, M. S. Reddy, and J. M. Cook (1997) Mode of Action of b-Carboline Convulsants on the Insect Nervous System and Their Potential as Insecticides. *Pestic. Sci*. 51, 1-6.

23. Y. X. Pan, E. A. Wong, J. R. BLOOMQUIST, and K. E. Webb, Jr. (1997) Poly(A)$^+$ RNA from sheep omasal epithelium induces expression of a peptide transport protein(s) in *Xenopus laevis* oocytes. *J. Animal Sci*. 75, 3323-3330.

24. *A. M. Wright, J. Bempong, *M. L. Kirby, R. L. Barlow, and J. R. BLOOMQUIST (1998) Effects of Haloperidol Metabolites on Neurotransmitter Uptake and Release: Possible Role in Neurotoxicity and Tardive Dyskinesia. *Brain Res*. 788, 215-222.

25. J. H. Johnson, J. R. BLOOMQUIST, K. J. Krapcho, R. M. Kral Jr., E. G. DelMar, R. Trovato, K. G. Eppler, and T. K. Morgan (1998) Novel Insecticidal Peptides from *Tegenaria agrestis* Spider Venom May Have a Direct Effect on the Insect Central Nervous System. *Arch. Insect Physiol. Biochem.* 38, 19-31.

26. G. W. Miller, *M. L. Kirby, A. I. Levey, and J. R. BLOOMQUIST (1999) Heptachlor Alters Expression and Function of Dopamine Transporters . *NeuroToxicology* 20, 631-638.

27. L. Meine, J. Bergh, S. Pond, J. BLOOMQUIST (1999) N. Castagnoli, Jr., S. Steyn, and C. Van der Schyf, *p*-Fluorophenylglycine in the Urine of Baboons Treated with HPTP, the Tetrahydropyridine Analog of Haloperidol. *Life Sci*. 65(5), 535-542.

28. *L. E. Walker and J. R. BLOOMQUIST (1999) Pharmacology of Contractile Responses in the Alimentary System of Caterpillars: Implications for Insecticide Development and Mode of Action. *Annals Entomol. Soc. Amer*. 92, 902-908. (This paper was an invited contribution to a special issue of the *Annals* in honor of Carl W. Schaefer's 25 years as editor.)

29. *M. L. Kirby, K. Castagnoli and J. R. BLOOMQUIST (1999) In Vivo Effects of Deltamethrin on Dopamine Neurochemistry and the Role of Augmented Neurotransmitter Release. *Pestic. Biochem. Physiol.* 65, 160-168.

30. B. G. Klein, *M. L. Kirby, *E. R. Freeborn, and J. R. BLOOMQUIST (2001) Pharmacology of the MPTP Analog *trans*-1-methyl-4-[4-dimethylaminophenylethenyl]-1,2,3,6-tetrahydro-pyridine in Mouse Striatal and Cortical Synaptosomes: A Potential Visual Marker for Substrates of MPTP-Induced Neurotoxicity. *Prog. Neuro-Psychopharmacol. Biol. Psych.* 25, 591-608.

31. #Y. Pan, E. Wong, J. BLOOMQUIST, and K. Webb (2001) Functional Characteristics of an Ovine Gastrointestinal Peptide Transporter (oPepT1) Expressed in *Xenopus* Oocytes. *J. Nutrition* 131, 1264-1270.

32. *M. L. Kirby, R. L. Barlow, and J. R. BLOOMQUIST (2001) Neurotoxicity of the Organochlorine Insecticide Heptachlor to Murine Striatal Dopaminergic Pathways. *Toxicol. Sci.* 61, 100-106.

33. #D. Karen, #W. Li, #P. Harp, #J. Gillette, and J. BLOOMQUIST (2001) Striatal Dopaminergic Pathways as a Target for the Insecticides Chlorpyrifos and Permethrin. *NeuroToxicology* 22, 811-817.

34. E. Usuki, J. R. BLOOMQUIST, *E. Freeborn, K. Castagnoli, C. J. Van Der Schyf and N. Castagnoli, JR (2002) Metabolic Studies on Haloperidol and its Tetrahydropyridinyl Dehydration Product (HPTP) in c57bl/6 Mouse Brain Preparations. *Neurotox. Res.* 4, 51-58.

35. *H. Chen, #Y-X. Pan, E. A. Wong, J. R. BLOOMQUIST, and K. E. Webb, Jr. (2002) Cloning and Functional Expression of a Chicken Intestinal Peptide Transporter (cPepT1) in *Xenopus* oocytes and Chinese Hamster Ovary Cells. *J. Nutrition* 132, 387-393.

36. *M. L. Kirby, R. L. Barlow, and J. R. BLOOMQUIST (2002) Selective Effects of Cyclodiene Insecticides on Dopamine Release in Mammalian Synaptosomes. *Toxicol. Appl. Pharmacol.* 181, 89-92.

37. P. R. Carlier, *E. Chow, R. L. Barlow, and J. R. BLOOMQUIST (2002) Discovery of Non-Zwitterionic $GABA_A$ Receptor Full Agonists and a Superagonist. *Bioorg. Med. Chem. Lett.* 12, 1985-1988.

38. J. R. BLOOMQUIST, G. T. Payne, L. Kinne J. Lyga, D. Leong, and R. A. Nicholson (2002) Toxicity and Mode of Action of Benzhydrolpiperidines and Related Compounds in Insects. *Pestic. Biochem. Physiol.* 73, 18-26.

39. *E. R. Freeborn and J. R. BLOOMQUIST (2002) Inhibition of Neuronal Firing in Murine Striatal Slices by Cyclodiene Insecticides is Mediated by Release of Dopamine and Not GABA Antagonism. *Pestic. Biochem. Physiol.* 73, 59-65.

40. #J. S. Gillette and J. R. BLOOMQUIST (2003) Differential Up-Regulation of Striatal Dopamine Transporter and α-Synuclein by the Pyrethroid Insecticide Permethrin. *Toxicol. Appl. Pharmacol*. 192, 287-293.

41. J. R. BLOOMQUIST (2003) Mode of Action of Atracotoxin at Central and Peripheral Synapses of Insects. *Invert. Neurosci.* 5, 45-50.

42. #W. J. Geldenhuys, S. F. Malan, T. Murugesan, C. J. Van der Schyf, and J. R. BLOOMQUIST (2004) Synthesis and Biological Evaluation of Pentacyclo[5.4.0.$0^{2,6}$.$0^{3,10}$.$0^{5,9}$]-undecane Derivatives as Potential Therapeutic Agents in Parkinson's Disease. *Bioorg. Med. Chem.* 12, 1799-1806.

43. *D. White, J. BLOOMQUIST, T. Greenwood, *A. Downey, and J. Wolfe (2004) Synthesis and Anticonvulsant Evaluation of Some New 2-Substituted-3-Arylpyrido[2,3-d]pyrimidinones. *Bioorg. Med. Chem*. 12, 5711-7.

44. *L. Van, #Y. X. Pan, J. R. BLOOMQUIST, K. E. Webb Jr., and E. A. Wong (2005) Developmental Regulation of a Turkey Intestinal Peptide Transporter (PepT1). *Poultry Sci.* 84, 75–82.

45. *R. J. Cordero, T. P. Kuhar, J. Speese, III, R. R. Youngman, E. E. Lewis, J. R. BLOOMQUIST, L. T. Kok, and A. D. Bratsch (2006) Field Efficacy of Insecticides for Control of Lepidopteran Pests on Collards in Virginia. *Plant Health Prog*. An on-line journal: http://www.plantmanagementnetwork.org/sub/php/research/2006/collard/

46. *J. Kou, #J. G. Gillette, and J. R. BLOOMQUIST (2006) Neurotoxicity in Striatal Dopaminergic Pathways Following Co-application of Permethrin, Chlorpyrifos, and MPTP. *Pestic. Biochem. Physiol*. 85, 68-75.

47. *J. Kou and J. R. BLOOMQUIST (2007) Neurotoxicity in Murine Striatal Dopaminergic Pathways Following Long-Term Application of Low Doses of Permethrin and MPTP. *Toxicol. Lett.* 171, 154-161.

48. *R. J. Cordero, J. R. BLOOMQUIST, and T. P. Kuhar (2007) Susceptibility of Two Diamondback Moth Parasitoids, Diadegma insulare (Cresson) (Hymenoptera; Ichneumonidae) and Oomyzus sokolowskii (Kurdjumov) (Hymenoptera; Eulophidae), to Selected Commercial Insecticides. *Biol. Control* 42, 48–54.

49. *W. J. Geldenhuys, S. F. Malan, J. R. BLOOMQUIST, and C. J. Van Der Schyf (2007) Structure-activity relationships of pentacycloundecylamines at the *N*-methyl-d-aspartic acid receptor. *Bioorg. Med. Chem.* 15(3), 1525-1532.

50. J. R. BLOOMQUIST, *D. R. Boina, *E. Chow, P. R. Carlier, M. Reina, and A. Gonzalez-Coloma (2008) Mode of action of the plant-derived silphinenes on insect and mammalian $GABA_A$ receptor/chloride channel complex. *Pestic. Biochem. Physiol*. 91, 17-23.

51. *D. R. Boina, E. E. Lewis, and J. R. BLOOMQUIST (2008) Nematicidal activity of anion transport blockers against *Meloidogyne incognita*, *Ceanorhabditis elegans*, and *Heterorhabditis bacteriophora. Pest. Manag. Sci.* 64, 646-653.

52. *D. R. Boina and J. R. BLOOMQUIST (2009) Toxicity and disruption of midgut physiology in larvae of the european corn borer, *Ostrinia nubilalis*, by Anion Transporter Blockers. *Arch. Insect Biochem. Physiol.* 70, 151-161.

53. *L. Srigiriraju, P. Semtner, #T. Anderson, and J. BLOOMQUIST (2009) Esterase-based resistance in the tobacco-adapted form of the green peach aphid, Myzus persicae (Sulzer) (Hemiptera: Aphididae) in the Eastern United States. *Arch. Insect Biochem. Physiol*. 72, 105-123 (2009).

54. *L. Srigiriraju, P. Semtner, and J. BLOOMQUIST (2010) Influence of post-exposure temperature on the toxicity of insecticides to the tobacco-adapted form of the green-peach aphid, *Myzus persicae* (Hemiptera: Aphididae). *J. Entomol. Sci.* 45 (2), 1-11.

55. *L. Srigiriraju, P. Semtner, and J. BLOOMQUIST (2010) Monitoring for imidacloprid resistance in the tobacco-adapted form of the green peach aphid, *Myzus persicae* (Sulzer) (Hemiptera: Aphididae) in the Eastern United States. *Pest Manag. Sci.* 66 (6), 676-685.

56. *L. Srigiriraju, P. Semtner, T. Anderson, and J. BLOOMQUIST (2010) Monitoring for MACE resistance in the tobacco-adapted form of the green peach aphid, *Myzus persicae* (Sulzer) (Hemiptera: Aphididae) in the eastern United States. *Crop Protection* 29, 197-202.

57. J. A. Hartsel, D. M. Wong, *J. M. Mutunga, M. Ma, #T. D. Anderson, A. Wysinski, #R. Islam, E. A. Wong, S. L. Paulson, J. Li, P. C.-H. Lam, M. Totrov, J. R. BLOOMQUIST, P. R. Carlier (2012) Re-engineering aryl methylcarbamates to confer high selectivity for inhibition of Anopheles gambiae vs human acetylcholinesterase. *Bioorg. Med. Chem. Lett*. 22, 4593-4598.

58. D. M. Wong, J. Li, Q.-H. Chen, Q. Han, *J. Mutunga, A. Wysinski, T. Anderson, H. Ding, T. Carpenetti, A. Verma, #R. Islam, S. Paulson, P. Lam, M. Totrov, J. BLOOMQUIST, and P. Carlier (2012) Select small core structure carbamates exhibit high contact toxicity to "carbamate-resistant" strain malaria mosquitoes, *Anopheles gambiae* (Akron). *PLoS ONE 7(10): e46712.* (doi:10.1371/journal.pone.0046712)

59. *L. Jenson, S. Paulson, and J. BLOOMQUIST (2012) Induction and Inhibition of an Apparent Neuronal Phenotype in *Spodoptera frugiperda* Insect Cells (Sf21) by Chemical Agents. *Invertebr. Neurosci.* 12: 119-127. (DOI 10.1007/s10158-012-0138-5)

60. *J. M. Mutunga, #T. D. Anderson, *D. Boina, P. R. Carlier, P. C.-H. Lam, M. M. Totrov, D. M. Wong, and J. R. Bloomquist (2013) Neurotoxicology of *bis*(n)-tacrines on *Blattella germanica* and *Drosophila melanogaster* acetylcholinesterase. *Archives Insect Biochem. Physiol.* 83(4), 180-194.

61. #F. Tong and J. R. BLOOMQUIST (2013) Plant essential oils affect the toxicities of carbaryl and permethrin against *Aedes aegypti* mosquitoes. *J. Med. Entomol*. 50(4), 826-832.

62. *C.A. Dodd, J.R. BLOOMQUIST and B.G. Klein (2013) Consequences of manganese administration for striatal dopamine and motor behavior in 1-methyl-4-phenyl-1,2,3,6-tetrahydropyridine-exposed C57BL/6 mice. *Human Exp. Toxicol.* 32(8) 865-880.

63. #D. Diykov, *L. Jenson, and J. BLOOMQUIST (2013) Voltage-sensitive chloride ion channels in *Anopheles gambiae* Sua-1B cells. *Invertebr. Neurosci.* 13, 57–62.

64. M. Mathé-Allainmat, *D. Swale, X. Leray, Y. Benzidane, J. Lebreton, J. R. BLOOMQUIST, S. H. Thany (2013) Quinuclidine compounds differently act as agonists of insect nicotinic acetylcholine receptors and induced distinct effect on insect ganglionic depolarizations. *Inverteb. Neurosci.* 13, 167-177.

Papers in conference proceedings (*student co-author, #postdoc co-author)

1. J. R. BLOOMQUIST and T. A. Miller (1985) A Simple Bioassay for Detecting and Characterizing Insecticide Resistance. Proceedings of Neurotox '85, Bath, England, *Pestic. Sci.* 16, 611-614.

2. J. R. BLOOMQUIST, P. M. Adams, and D. M. Soderlund (1987) Neurotoxic Insecticides as Antagonists of $GABA_A$ Receptor Function. In: "Sites of Action for Neurotoxic Pesticides" (R. Hollingworth and M. Green, Eds.), *ACS Symp. Ser.* 356, 97-106*,* American Chemical Society, Washington, D.C.

3. D. M. Soderlund, J.R. BLOOMQUIST, S. M. Ghiasuddin, and A. M. Stuart (1987) Enhancement of Veratridine-Dependent Sodium Channel Activation by Pyrethroids and DDT Analogs. In: "Sites of Action for Neurotoxic Pesticides" (R. Hollingworth and M. Green, Eds.), *ACS Symp. Ser.* 356, 251-261*,* American Chemical Society, Washington, D.C.

4. D. C. Knipple, J. R. BLOOMQUIST, and D. M. Soderlund (1988) Molecular Genetic Approach to the Study of Target-Site Resistance to Pyrethroids and DDT in Insects. In: "Biotechnology for Crop Protection" (P. Hedin, J. Menn, and R. Hollingworth, Eds.), *ACS Symp. Ser.* 379, 199-214, American Chemical Society, Washington, D.C.

5. D. M. Soderlund, J.R. BLOOMQUIST, F. Wong, L. L. Payne, and D. C. Knipple (1989) Molecular Neurobiology: Implications for Insecticide Action and Resistance. *Pestic. Sci.* 26, 359-374.

6. D. M. Soderlund, J. R. BLOOMQUIST, G. T. Payne, and J. A. Ottea (1989) Pharmacological Characterization of Insecticide-Binding Domains of the Voltage-Sensitive Sodium Channel. In: "Insecticide Action: From Molecule to Organism" (T. Narahashi and J. Chambers, Eds.), pp. 85-97, Plenum, New York.

7. D. B. Gant, J. R. BLOOMQUIST, H. M. Ayad, and A. E. Chalmers (1990) A Comparison of Mammalian and Insect GABA Receptor Chloride Channels. *Pestic. Sci.* 30, 355-357.

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9. J. R. BLOOMQUIST (1988) Neurophysiological Assays for the Characterisation and Monitoring of Pyrethroid Resistance. In: "Neurotox '88: Molecular Basis of Drug & Pesticide Action" (G.G. Lunt, Ed.), Elsevier, Amsterdam, pp. 543-551.

10. J. R. BLOOMQUIST, *M. L. Kirby, K. Castagnoli, and G. W. Miller (1999) Effects of Heptachlor Exposure on Neurochemical Biomarkers of Parkinsonism. In: "Progress in Neuropharmacology and Neurotoxicology of Pesticides and Drugs," (D. J. Beadle, Ed.), Society of Chemical Industry/Royal Society of Chemistry, Cambridge, United Kingdom, pp. 195-203.

11. J. R. BLOOMQUIST and W. H Robinson (1999) Prevalence and Magnitude of Resistance to Cyclodiene and Phenylpyrazole Insecticides in *Blattella germanica* and *Drosophila melanogaster*. In: "Proceedings of the 3rd International Conference on Insect Pests in the Urban Environment," (Wm. Robinson, F. Rettich, and G. Rambo, Eds.) Graficke zavody Hronov, Czech Republic, pp. 27-34.

12. *E. R. Freeborn and J. R. BLOOMQUIST (2001) Electrophysiological Studies of Dopamine Pathways in Murine Striatal Slices and Their Role in the Neurotoxic Action of Cyclodienes. In: "Agrochemical Discovery: Insect, Weed, and Fungal Control" (D. Baker and K. Umetsu, Eds.) *ACS Symp. Ser.* 774, 281-292.

13. D. Leong, J. BLOOMQUIST, *J. Bempong, J. Dybas, L. Kinne, J. Lyga, F. Marek, and R. Nicholson (2001) Insecticidal Arylalkylbenzhydrolpiperidines: Novel Inhibitors of Voltage-Sensitive Sodium and Calcium Channels in Mammalian Brain. *Pest Management Sci.* 57, 889-895.

14. J. BLOOMQUIST, R. Barlow, #J. Gillette, #W. Li, and *M. Kirby (2002) Selective Effects of Insecticides on Nigrostriatal Dopaminergic Nerve Pathways. *NeuroToxicology* 23, 537-544.

15. J. R. BLOOMQUIST (2003) Chloride Channels as Tools for Developing Selective Insecticides. *Arch. Insect Biochem. Physiol.* 54, 145-156.

16. #W. J. Geldenhuys, J. Klein, S. F. Malan, J. R. BLOOMQUIST, T. Murugesan, and C. J. Van Der Schyf (2004) Inhibition of Monoamine Oxidase B by Derivatives of Pentacyclo[5.4.0.$0^{2,6}$.$0^{3,10}$.$0^{5,9}$]-undecane. In: Proceedings of the 15th International Symposium on Microsomes and Drug Oxidations, F. Oesch, ed., Medimont S.r.l., Bologna, Italy, pp. 77-81.

17. *J. Kou, D. C. Klorig, and J. R. BLOOMQUIST (2006) Potentiating Effect of The ATP-Sensitive Potassium Channel Blocker Glibenclamide on Complex I Inhibitor Neurotoxicity In Vitro and In Vivo. *NeuroToxicology* 27, 826-834.

18. P. R. Carlier, #T. D. Anderson, D. M. Wong, *D. C. Hsu, E. A. Wong, #R. Choudhury, P. Lam, M. Totrov, and J. R. BLOOMQUIST (2008) Towards a species-selective acetylcholinesterase inhibitor to control the mosquito vector of malaria, *Anopheles gambiae.* Proceedings of the Ninth International Meeting on Cholinesterase Biology, Suzhou, China. *Chemico-Biological Interactions* 175, 368–375.

19. *J. M. Mutunga, #T. D. Anderson, #D. M. Wong, P. R. Carlier, and J. R. BLOOMQUIST (2008) Inhibition of *Blatella germanica* Acetylcholinesterase by *Bis*(n)-Tacrines: Prospects for the Molecular Design of a Selective Insecticide for a Household Pest. *ACS Symp. Ser.* 1015, 41-51 (2009).

20. #T. D. Anderson, S. L. Paulson, #D. M. Wong, Paul R. Carlier, and Jeffrey R. BLOOMQUIST (2009) Pharmacological Mapping of the Acetylcholinesterase Catalytic Gorge in Mosquitoes with *Bis*(n)-Tacrines. *ACS Symp. Ser.* 1014, 143-152.

21. *D. R. Boina and J. R. BLOOMQUIST (2010) Reduced expression of voltage-gated chloride channel genes in *Caenorhabditis elegans*: Implications for the mode of action of chloride channel-directed nematicides. *Pestic. Biochem. Physiol.* 97 (2), 161-166.

22. *D. Boina and J. R. BLOOMQUIST (2011) Blockage of chloride channels and anion transporters with pesticidal natural products and their synthetic analogs. Proceedings of the 8th Phytochemical Society of Europe Meeting on Biopesticides. *Phytochem. Rev.* 10 (2), 217-226.

23. #F. Tong, #R. M. Islam, P. R. Carlier, M. Ma, F. Ekström, and J. R. BLOOMQUIST (2013) Effects of anticholinesterases on catalysis and induced conformational change of the peripheral anionic site of murine acetylcholinesterase. *Pestic. Biochem. Physiol.* 106, 79–84.

24. *Y. Jiang, *D. Swale, P. R. Carlier, J. A. Hartsel, M. Ma, F. Ekström, and J. R. BLOOMQUIST (2013) Evaluation of novel carbamate insecticides for neurotoxicity to non-target species. *Pestic. Biochem. Physiol.* 106, 156–161.

25. *D. R. Swale, #F. Tong, K. B. Temeyer, A. Li, P. C-H. Lam, M. M. Totrov, P. R. Carlier, and J. R. BLOOMQUIST (2013) Inhibitor profile of *Rhipicephalus (Boophilus) microplus* and *Phlebotomus papatasi* acetylcholinesterase and the identification of potent *N*-methylcarbamates for the control of their respective vectored diseases. *Pestic. Biochem. Physiol.* 106, 85–92.

26. M. Tsikolia, U. R. Bernier, M. R. Coy, K. C. Chalaire, J. J. Becnel, N. M. Agramonte, N. Tabanca, D. E. Wedge, G. G. Clark, K. J. Linthicum, D. R. Swale, and J. R. BLOOMQUIST (2013) Insecticidal and fungicidal properties of novel trifluoromethylphenyl amides. *Pestic. Biochem. Physiol.* 107, 138-147.

27. D. M. Wong, J. Li, P.C.H. Lam, J. A. Hartsel, J. M. Mutunga, M. Totrov, J. R. BLOOMQUIST, and P. R. Carlier (2013) Aryl methylcarbamates: potency and selectivity towards wild-type and carbamate-insensitive (G119S) *Anopheles gambiae* acetylcholinesterase, and toxicity to G3 Strain *An. gambiae.* 11th Meeting on Cholinesterases, Kazan, Russia. *Chem. Biol. Interact.* 203, 314-318.

Reviews

1. D. M. Soderlund and J. R. BLOOMQUIST (1989) Neurotoxic Actions of Pyrethroid Insecticides. *Annu. Rev. Entomol.* 34, 77-96.

2. J. R. BLOOMQUIST (1991) The Role of the $GABA_A$ Receptor in Insecticide-Induced Mammalian Neurotoxicity. In: "Pesticides and the Future: Toxicological Studies of Risks and Benefits" (E. Hodgson, M. Roe, and N. Motoyama, Eds.), *Rev. Pestic. Tox.* 1, 107-117, North Carolina State University Press, Raleigh, North Carolina.

3. J. R. BLOOMQUIST (1993) Neuroreceptor Mechanisms in Pyrethroid Mode of Action and Resistance. *Rev. Pestic. Tox*. 2, 185-226.

4. J. R. BLOOMQUIST (1993) Toxicology, Mode of Action, and Target Site-Mediated Resistance to Insecticides Acting on Chloride Channels. Mini Review, *Comp. Biochem. Physiol* 106C, 301-314.

5. J. M. Clark, J. G. Scott, F. Campos, and J. R. BLOOMQUIST (1995) Resistance to Avermectins: Extent, Mechanisms, and Management Implications. *Annu. Rev. Entomol.* 40, 1-30.

6. J. R. BLOOMQUIST (1996) Ion Channels as Targets for Insecticides. *Annu. Rev. Entomol.* 41, 163-190.

7. N. Castagnoli Jr., J. Rimoldi, J. BLOOMQUIST, and K. Castagnoli (1997) Potential Metabolic Bioactivation Pathways Involving Cyclic Tertiary Amines and Azaarenes. *Chem. Res. Toxicol*. 10, 924-940.
8. J. R. BLOOMQUIST (1998) Chemistry and Toxicology of the Chlorinated Cyclodienes and Lindane. *Rev. Toxicol*. 2, 333-355.
9. #W. J. Geldenhuys, S. F. Malan, J. R. BLOOMQUIST, A. P. Marchand, and C. J. Van der Schyf (2005) Pharmacology and Chemistry of Polycyclic Cage-derived Compounds. *Medicinal Res. Rev*. 25, 21-48.
10. W. J. Geldenhuys, D. D. Allen, and J. R. BLOOMQUIST (2012) Novel Models for Assessing Blood-Brain Barrier Drug Permeation. *Expert Opinion Drug Metab. Toxicol*. 8(6):647-53.

Prefaces, Forwards, etc.

1. J. R. BLOOMQUIST (2010) Forward to the Special edition, "Insecticidal Action." Proceedings of an American Chemical Society award symposium in honor of Dr. David M. Soderlund. *Pestic. Biochem. Physiol.* 97 (2), 77.

Published Patents

1. J.R. BLOOMQUIST and S. L. PAULSON (2005) Cell Culture Procedures for Inducing a Neuronal Phenotype in Insect Cells. Found at: http://appft1.uspto.gov/netacgi/nph-Parser?Sect1=PTO1&Sect2=HITOFF&d=PG01&p=1&u=%2Fnetahtml%2FPTO%2Fsrchnum.html&r=1&f=G&l=50&s1=%2220050221475%22.PGNR.&OS=DN/20050221475&RS=DN/20050221475
2. J. R. BLOOMQUIST (2007) Pesticidal Compositions and Methods of Use. Found at: http://www.google.com/patents/US20080103205
3. P. Carlier, J. BLOOMQUIST , E. Wong, and S. Paulson (2008). Insecticidal Carbamates Exhibiting Species-Selective Inhibition of Acetylcholinesterase (AChE). Found at: http://appft1.uspto.gov/netacgi/nph-Parser?Sect1=PTO2&Sect2=HITOFF&u=%2Fnetahtml%2FPTO%2Fsearch-adv.html&r=1&f=G&l=50&d=PG01&s1=%22insecticidal+carbamates%22&s2=%22species-selective+inhibition%22&co1=AND&p=1&OS=%22insecticidal+carbamates%22+AND+%22species-selective+inhibition%22&RS=%22insecticidal+carbamates%22+AND+%22species-selective+inhibition%22

Numbered extension publications

1. R. R. Youngman, J. R. BLOOMQUIST, J. B. Hall, S. L. Paulson, and W. D. Whittier (2006) Agricultural Animal Pest Control: A Guide for Livestock Managers in Virginia. Virginia Agricultural Experiment Station #456-215.

PAPERS PRESENTED AT PROFESSIONAL MEETINGS

Summary: Invited Presentations

Presentations/year, last 5 years: 8/2009; 7/2010; 7/2011; 5/2012; 6/2013

Audience	Total

International	24
National	32
Regional/Federal	8
University	27
Industry	18
Total Presentations	109

International (Presenting Author, *student co-author, #postdoc co-author)

1. J. R. BLOOMQUIST (1988) Neurophysiological Assays for the Characterization and Monitoring of Pyrethroid Resistance. International Symposium on the Molecular Basis of Drug and Pesticide Action (Neurotox '88), Nottingham, England.
2. J. R. BLOOMQUIST (1990) Mammalian Neuroreceptors as Targets for Insecticide Action. US/Japan Symposium, "Pesticides and the Future: Toxicological Studies of Risks and Benefits," Sponsored by the National Science Foundation, Rockville, Maryland.
3. J. R. BLOOMQUIST, R. ffrench-Constant, and R. Roush (1991) Excitation of Central Neurons by Dieldrin and Picrotoxinin in Susceptible and Cyclodiene-Resistant Strains of *Drosophila melanogaster* (Meigen). International Symposium on the Molecular Basis of Drug and Pesticide Action (Neurotox '91), Invited Workshop Presentation, Southampton, England.
4. R. P. Gajewski, J. L. Jackson, L. L. Karr, and J. R. BLOOMQUIST (1991) Spirosultam LY219048, A New Chemical Class of Neurotoxin Acting Upon the GABA Receptor/Chloride Ionophore Complex. International Symposium on the Molecular Basis of Drug and Pesticide Action (Neurotox '91), Invited Workshop Presentation, Southampton, England.
5. J. BLOOMQUIST, A. LaLoggia, M. Reddy, and J. Cook (1994) Mode of Action of β-Carboline Convulsants on the Insect Nervous System and their Potential as Insecticides. Invited Poster, 8th International Congress of Pesticide Chemistry, Washington, D. C.
6. J. R. BLOOMQUIST, *M. L. Kirby, G. W. Miller, and A. I. Levey (1998) Effects of Insecticide Exposure on Behavioral and Neurochemical Biomarkers of Parkinsonism. International Symposium on Progress in Neuropharmacology and Neurotoxicology of Pesticides and Drugs (Neurotox '98), Oxford, England.
7. J. R. BLOOMQUIST (1999) Prevalence and Magnitude of Resistance to Cyclodiene and Phenylpyrazole Insecticides in *Blattella germanica* and *Drosophila melanogaster.* 3rd International Conference on Insect Pests in the Urban Environment, "ICUP '99." Prague, Czech Republic.
8. J. R. BLOOMQUIST (1999) GABA Antagonism and Neurotransmitter Release in the Neurotoxic Action Of Cyclodienes. 2nd Pan-Pacific Conference on Pesticide Science, Honolulu, Hawaii.
9. J. R. BLOOMQUIST (2005) Molecular Design of Selective Anticholinesterases for Mosquito Control. Fall 2005, Kick off meeting of the FNIH Grand Challenges in Global Health program, Seattle, WA.
10. J. R. BLOOMQUIST (2006) Molecular Design of Selective Anticholinesterases for Mosquito Control. Annual meeting of the FNIH Grand Challenges in Global Health program, Washington, DC.
11. J. BLOOMQUIST, D. Carlier, P. Carlier, S. Paulson, E. Wong, M. Totrov, and J. Githure (2007) Molecular design of selective anticholinesterases for mosquito control. Third annual meeting of the Grand Challenges in Global Health, Cape Town, South Africa.

12. J. BLOOMQUIST, D. Carlier, P. Carlier, S. Paulson, E. Wong, M. Totrov, and J. Githure (2008) Molecular Design of Selective Anticholinesterases for Mosquito Control. Annual Meeting of the Grand Challenges in Global Health, FNIH, Bangkok, Thailand, October 19-22.

13. J. BLOOMQUIST, D. Carlier, P. Carlier, S. Paulson, E. Wong, M. Totrov, and J. Githure (2008) Design of Active Ingredients. Vector Control Consultation, Bill and Melinda Gates Foundation, Seattle, July 28-30.

14. J. BLOOMQUIST (2008) Anticholinesterases revisited: New routes to selective and resistance-breaking insecticides. 4th Pan-Pacific Conference on Pesticide Science, Honolulu, Hawaii.

15. J. BLOOMQUIST, D. Carlier, P. Carlier, S. Paulson, E. Wong, M. Totrov, and J. Githure (2008) Molecular design of selective anticholinesterases for mosquito control. A research pre-proposal presentation given to the Innovative Vector Control Consortium, Liverpool School of Tropical Medicine, Liverpool, England.

16. J. BLOOMQUIST (2009) Ligand- and Voltage-Gated Chloride Channels/Exchangers as Targets for Natural Products. 8th Phytochemical Society of Europe Meeting on Biopesticides, La Palma, Canary Islands, Spain.

17. P. Carlier, J. BLOOMQUIST, D. Carlier, P. Carlier, S. Paulson, E. Wong, M. Totrov, and J. Githure (2009) Molecular Design of Selective Anticholinesterases for Mosquito Control. Annual Meeting of the Grand Challenges in Global Health, FNIH, Arusha, Tanzania.

18. J. R. Bloomquist (2010) Structure-Activity Analyses of Novel Carbamates for Control of the Malaria Mosquito, *Anopheles gambiae.* 12th IUPAC International Congress of Pesticide Chemistry, Melbourne, Australia.

19. P. R. Carlier and J. R. BLOOMQUIST (2011) IVCC Proof of Concept Grant Progress Report. Innovative Vector Control Consortium Meeting, Rockefeller University, New York, New York.

20. J. R. BLOOMQUIST, D. R. Swale, F. Tong, P. R. Carlier, M. M. Totrov, K. B. Temeyer (2012) Unique pharmacological properties of *Rhipicephalus (Boophilus) microplus* acetylcholinesterase: Providing chemical lead compounds for the control of tick-vectored diseases. 4th International Symposium on Emerging Infectious Diseases, Ulaanbaatar, Mongolia.

21. J. R. BLOOMQUIST (2013) Mechanisms and management of insecticide resistance. Agrarian National University The Molina, Distinguished Lecture Series supported by the Division of Agrochemicals, American Chemical Society, Lima, Peru.

22. J. R. BLOOMQUIST (2013) Insecticide modes of action. Agrarian National University The Molina, Distinguished Lecture Series supported by the Division of Agrochemicals, American Chemical Society, Lima, Peru.

23. J. R. BLOOMQUIST, M. M. Totrov, P. R. Carlier (2013) Voltage-Sensitive Potassium Channel as a New Target for Mosquitocides. Presentation to the Innovative Vector Control Consortium, Liverpool, England.

24. J. R. BLOOMQUIST (2013) Development of novel insecticides with minimized non-target risk. 6th International Congress, Society of Vector Ecology, Palm Springs, CA.

National (Presenting Author, *student co-author, #postdoc co-author)

1. J. R. BLOOMQUIST and D. M. Soderlund (1985) Physiological and Pharmacological Characteristics of Knockdown Resistance. Entomological Society of America Symposium, "Research Needs and Advances in Insecticide Target Sites and Target Site Resistance," National Meeting, Hollywood, Florida.

2. J. R. BLOOMQUIST and D. M. Soderlund (1986) Neurotoxic Insecticides as Inhibitors of GABA-Dependent Chloride Uptake by Mouse Brain Vesicles. American Chemical Society, Division of Agrochemicals Symposium, "The Search for Novel Insecticides: Toxicants Affecting GABA, Octopamine and Other Neuroreceptors in Invertebrates," National Meeting, New York, New York.

3. D. M. Soderlund and J. R. BLOOMQUIST (1986) Pyrethroids and DDT Enhance Sodium Channel Activation in Mouse Brain Synaptosomes. American Chemical Society, Division of Agrochemicals Symposium, "The Search for Novel Insecticides: Toxicants Affecting GABA, Octopamine and Other Neuroreceptors in Invertebrates," National Meeting, New York, New York.

4. D. C. Knipple, J. R. BLOOMQUIST, and D. M. Soderlund (1987) Molecular Genetics of Nerve Insensitivity Resistance to Insecticides. American Chemical Society, Division of Agrochemicals Special Conference III: "Biotechnology in Crop Protection," Snowbird, Utah.

5. D. M. Soderlund and J. R. BLOOMQUIST (1988) Insecticide Actions at the GABA Receptor-Chloride Ionophore Complex: Application of Functional Assays. American Chemical Society, Division of Agrochemicals Symposium, "Biochemical and Molecular Toxicology of Pesticides," (in honor of Professor Fumio Matsumura), National Meeting, Los Angeles, California.

6. D. M. Soderlund, J. R. BLOOMQUIST, G. T. Payne, and J. A. Ottea (1988) Pharmacological Characterization of the Insecticide Binding Domain of the Voltage-Sensitive Sodium Channel. American Chemical Society, Division of Agrochemicals Symposium, "Insecticide Action: From Molecule to Organism," National Meeting, Los Angeles, California.

7. J. R. BLOOMQUIST, D. M. Soderlund, and D. C. Knipple (1988) Neuropharmacology and Molecular Genetics of Insect Nerve Insensitivity to Pyrethroids. American Chemical Society, Division of Agrochemicals Symposium, "Fundamental and Practical Approaches to Combating Resistance," National Meeting, Los Angeles, California.

8. J. R. BLOOMQUIST (1990) Molecular Pharmacology of Knockdown Resistance. Entomological Society of America Symposium, "Molecular Basis of Insecticide Resistance," National Meeting, New Orleans, Louisiana.

9. J. R. BLOOMQUIST (1991) Antagonism of Chloride Channel Function in Insecticide Mode of Action and Resistance. American Chemical Society, Division of Agrochemicals, Young Scientist Symposium, National Meeting, Atlanta, Georgia.

10. J. R. BLOOMQUIST, M. M. Totrov, P. R. Carlier (2013) Voltage-sensitive potassium channels as new target sites for biorational insecticide design. Symposium on Biopesticides: State of the Art and Future Opportunities, National Meeting of the American Chemical Society, Indianapolis, IN.

11. J. R. BLOOMQUIST and L. Walker (1992) Physiological Actions of Avermectins on Insect Visceral Muscle. American Chemical Society, Division of Agrochemicals Symposium, "Mode of Action, Toxicology, and Resistance Management of the Avermectins," National Meeting, Washington, D.C.

12. J. R. BLOOMQUIST (1993) Organochlorine, Pyrethroids, and Newer Insecticides. In: Continuing Education Course "Insecticides: Mechanisms of Action, Metabolism and Toxicology in Vertebrates" (J. Chambers, Organizer), National Meeting of the Society of Toxicology, New Orleans, Louisiana.

13. J. R. BLOOMQUIST, L. Kinne, V. Deutsch, and S. Simpson (1994) Insecticidal Peptide Toxin from *Diguetia canities*: Mode of Action Studies. Division of Agrochemicals Symposium, "Synthesis and Chemistry of New and Potential Agrochemicals," National Meeting of the American Chemical Society, Washington, D.C.

14. N. Castagnoli, #S. Kuttab, #J. Rimoldi, A. Hall, J. BLOOMQUIST, and K. Castagnoli (1995) Dopaminergic Neurotoxicity: Chemical and Biological Requirements. Workshop on the Role of the

Environment in Parkinson's Disease, National Institute of Environmental Health Sciences, Research Triangle Park, North Carolina.

15. J. R. BLOOMQUIST (1996) Mechanistic Studies on the Comparative Neurotoxicology of the Avermectins. Society of Environmental Toxicology and Chemistry, Washington, D.C.

16. J. R. BLOOMQUIST (2002) Chloride Channels as Tools for Developing Selective Insecticides. National Meeting of the Entomological Society of America, Fort Lauderdale, Florida

17. J. R. BLOOMQUIST (2003) Low Dose Effects of Insecticides to Dopaminergic Pathways Involved in Parkinsonism. International Award for Research in Agrochemicals, symposium for Robert M. Hollingworth, National Meeting of the American Chemical Society, New Orleans, Louisiana.

18. J. R. BLOOMQUIST (2004) Insecticide exposure in the MPTP-treated C57 mouse model of Parkinson's disease. International Award Symposium for Research in Agrochemicals, *The Yin and Yang of Pesticide Toxicology*, A symposium in honor of John Clark. National Meeting of the American Chemical Society, Division of Agrochemicals, Philadelphia, PA.

19. J. R. BLOOMQUIST (2007) Cyclodiene-induced alterations in mammalian dopaminergic pathways as a possible cause of environmentally-induced Parkinsonism. Invited speaker, Agrochemicals Division International Award Symposium for Gerald Brooks, National Meeting of the American Chemical Society, Chicago, Illinois.

20. J. BLOOMQUIST and *D. Boina (2008) Anion Channels/Transporters as Targets for New Insecticides and Nematicides. Agrochemicals Division International Award Symposium for David Soderlund, National Meeting of the American Chemical Society, Philadelphia, Pennsylvania.

21. J. R. BLOOMQUIST (2010) Discovery and Development of New Public Health Pesticides. Seventh Annual Review of Deployed War Fighter Program for Protection Against Disease Carrying Arthropods, Gainesville, Florida.

22. J. R. BLOOMQUIST (2010) Ordinance: Molecular basis of selectivity and semi-field performance of carbamate anticholinesterases for control of the malaria mosquito, Anopheles gambiae. National meeting of the American Mosquito Control Association, Lexington, Kentucky.

23. J. R. BLOOMQUIST (2010) Molecular interactions of highly selective carbamates with acetylcholinesterase of the malaria mosquito, Anopheles gambiae. National meeting of the American Chemical Society, Division of Agrochemicals, symposium in honor of Professor John Casida, San Francisco, California.

24. J. R. BLOOMQUIST (2010) Molecular design and semi-field performance of highly selective carbamates for control of the malaria mosquito, Anopheles gambiae. Armed Forces Pest Management Board, Dept. of Defense Pest Management Workshop, Jacksonville, Florida.

25. J. R. BLOOMQUIST, P. R. Carlier, and M. Totrov (2011) Voltage-Sensitive Potassium Channel as a New Target for Mosquitocides. Annual investigators meeting for Vector-based Control of Transmission: Discovery Research, Grand Challenges in Global Health, FNIH, Bethesda, Maryland.

26. J. R. BLOOMQUIST (2011) Discovery of New Public Health Pesticides. Eighth Annual Review of Deployed War Fighter Program for Protection Against Disease Carrying Arthropods, Beltsville, Maryland.

27. J. BLOOMQUIST, Q.-H. Chen, D. Wong, *J. Mutunga, F. Astha, J. Li, P. Lam, M. Totrov, *D. Swale, and P. Carlier (2011) Molecular Pharmacology of New Anticholinesterases for Control of the Malaria Mosquito, Anopheles gambiae. National Meeting of the Entomological Society of America, Reno, Nevada.

28. J. R. BLOOMQUIST (2011) Hormone-Treated Insect Cell Lines as a New Research Platform for Discovery of Novel Public Health Insecticides. Vector Control Section, Armed Forces Public Health Conference, Hampton Roads Convention Center, Hampton, Virginia.
29. P. R. Carlier, J. R. BLOOMQUIST, J. Li, M. Totrov (2012) Designing anticholinesterase insecticides to achieve high selectivity for the malaria mosquito, Anopheles gambiae, and potency against known resistance mutations. National Meeting of the American Chemical Society, Philadelphia, PA.
30. J. R. BLOOMQUIST and *D. Swale (2012) Neurotoxicology of N,N-diethyl-meta-toluamide (DEET). National meeting of the American Chemical Society, Philadelphia, Pennsylvania.
31. #F. Tong and J. R. BLOOMQUIST (2012) Essential oils as synergists and control agents for vector mosquitoes. National meeting of the Entomological Society of America, Knoxville, Tennessee.
32. J. R. BLOOMQUIST, J. Li, M. M. Totrov, P. R. Carlier (2013) Inhibitors targeting acetylcholinesterase with high selectivity for arthropod disease vectors. International Award Symposium for Rene Feyereisen, National Meeting of the American Chemical Society, Indianapolis, IN.

Regional or Federal (Presenting Author, *student co-author, #postdoc co-author)

1. J. R. BLOOMQUIST (1991) The Role of Chloride Channels in Insecticide Mode of Action and Resistance. Pesticide Mode of Action Symposium, Division of Agricultural and Food Chemistry, Regional Meeting of the American Chemical Society, Indianapolis, Indiana.
2. J. R. BLOOMQUIST (1999) Mechanism of Action and Resistance to Cyclodiene and Related Insecticides. 70th Annual Meeting of the Eastern Branch of the Entomological Society of America. Virginia Beach, Virginia.
3. J. R. BLOOMQUIST (2000) Unusual Structure-Toxicity Relationships Among Fipronil Analogs: Molecular Toxicology Applications to Resistance Management. Armed Forces Pest Management Board, Walter Reed Medical Center, Bethesda, Maryland.
4. J. R. BLOOMQUIST (2001) Pesticides and Parkinsonism: Military Insecticide Exposures and Its Relevance to the General Public. Capital Chapter of the National Parkinson Foundation, Parkinson's Community Support Group, Fairfax, Virginia.
5. J. R. BLOOMQUIST (2009) Molecular Design and Semi-Field Performance of Monovalent and Bivalent Inhibitors of Acetylcholinesterase for Control of Malaria. USDA/ARS Natural Products Utilization Research Unit, Oxford, MS.
6. J. R. BLOOMQUIST (2009) Reduced Expression of Voltage-Gated Chloride Channel Genes in *Caenorhabditis elegans* by RNAi: Implications for the Mode of Action of Chloride Channel-Directed Toxicants. USDA/ARS Center for Medical, Agricultural, and Veterinary Entomology, Gainesville, FL.
7. J. R. BLOOMQUIST (2012) New model of action of insecticides. 9th Annual Arbovirus Surveillance and Mosquito Control Workshop, St. Augustine, Florida.
8. J. R. BLOOMQUIST (2012) New Modes of Action for Vector Control Insecticides. Knipling-Bushland U.S. Livestock Insects Research Laboratory, Kerrville, Texas.

University (Presenting Author, *student co-author, #postdoc co-author)

1. J. R. BLOOMQUIST (1987) The Role of the Voltage-Sensitive Sodium Channel in Knockdown Resistance to Pyrethroids. Department of Entomology Seminar, Cornell University, New York State Agricultural Experiment Station, Geneva, New York.
2. J. R. BLOOMQUIST (1992) Physiology and Pharmacology of Chloride Channels in Susceptible and Insecticide-Resistant Insects. Department of Entomology, Clemson University.
3. J. R. BLOOMQUIST (1992) Action of Insecticides on Inhibitory Neurotransmission and Chloride Channels. Department of Entomology, University of Maryland.
4. J. R. BLOOMQUIST (1993) Resistance Profile and Neuropharmacology of Chloride Channel-Directed Insecticides. Department of Entomology, Louisiana State University.
5. J. R. BLOOMQUIST (1994) Bugs, Drugs, and Neuroscience. Sigma Xi Lecture, Virginia Tech.
6. J. R. BLOOMQUIST (1996) Overview of Neurotoxicity Studies in the Entomology Department. Toxicology Roundtable, Department of Biomedical Sciences & Pathobiology, VMRCVM, Virginia Tech.
7. J. R. BLOOMQUIST (1999) Applications of Neuroscience Research: Automotive Cockroaches and Neurotoxicology. Department of Biological Systems Engineering, Virginia Tech.
8. J. R. BLOOMQUIST (2001) Exploiting Patterned Motor Output in Insects: Getting an American Cockroach to Drive a Car. Ecology, Evolution, and Systematics Seminar, Department of Biology, Virginia Tech.
9. J. R. BLOOMQUIST (2001) Pesticides and Parkinsonism in Gulf War Syndrome. Guest Speaker, Department of Toxicology, North Carolina State University, Raleigh, North Carolina.
10. J. R. BLOOMQUIST (2001) Physiology and Pharmacology of Ligand-Gated Chloride channels in Insects. Guest Speaker, Department of Entomology, Auburn University, Auburn, Alabama.
11. J. R. BLOOMQUIST (2001) Insecticide Exposure, Dopamine Neurotoxicity, and Parkinson's Disease. Guest Speaker, Department of Entomology, University of California, Davis, California.
12. J. R. BLOOMQUIST (2001) Insecticide Exposure, Dopamine Neurotoxicity, and Parkinson's Disease. Guest Speaker, Department of Entomology, University of California, Riverside, California.
13. J. R. BLOOMQUIST (2003) Actions of Organophosphorus and Pyrethroid Insecticides on Dopaminergic Pathways Involved in Parkinsonism. School of Pharmacy, Dept. of Pharmaceutical Science, Texas Tech University Health Sciences Center, Amarillo, Texas.
14. J. R. BLOOMQUIST (2005) Impact of Insecticide exposure in the MPTP-treated C57 mouse model of Parkinson's disease. University of Massachusetts, Department of Veterinary and Animal Science, Biomedicine and Biotechnology Program, Amherst, MA.
15. J. R. BLOOMQUIST (2005) Research in Medical Entomology at Virginia Tech. Department of Entomology, presentation for Agriculture Secretary Bloxom's visit, Campus.
16. J. BLOOMQUIST, P. Carlier, E. Wong, and S. Paulson (2006) Novel anticholinesterases for control of the malaria mosquito, *Anopheles gambiae*. Vector-Borne Disease Research: The Road Ahead, October 13-15, 2006, Blacksburg, Virginia.
17. J. R. BLOOMQUIST (2006) Research in Medical Entomology at Virginia Tech. Department of Entomology, presentation for potential CALS donors, Campus.
18. J. R. BLOOMQUIST (2007) Bivalent Anticholinesterases: New Chemistry for an Old Target. Dept. of Entomology, Cornell University, Ithaca and Geneva, New York.

19. J. R. BLOOMQUIST (2007) Research into Control of the Malaria Mosquito, Anopheles gambiae, Using Novel Anticholinesterases. Dept. of Entomology, Michigan State University, East Lansing, Michigan.
20. P. Carlier, J. BLOOMQUIST, S. Paulson, E. Wong, M. Totrov, and J. Githure (2008) Molecular design of selective anticholinesterases for mosquito control. School of Pharmacy and Pharmaceutical Sciences, University of California, San Diego, California.
21. J. BLOOMQUIST (2008) Working with Private Foundations. CALS Panel Discussion on Research Funding, Virginia Tech, Campus.
22. J. BLOOMQUIST (2008) Selective Anticholinesterases for Control of the Malaria Mosquito, *Anopheles gambiae*: Mission Impossible? Department of Entomology, University of California, Riverside, California.
23. J. BLOOMQUIST (2008) Novel and Selective Anticholinesterases for Control of the Malaria Mosquito, *Anopheles gambiae*. Paul Dahm Memorial Lecture, Dept. of Entomology, Iowa State University, Ames, Iowa.
24. J. R. Bloomquist. (2009) Invited lecture, John V. Osmun Alumni Professional Achievement Award in Entomology, Purdue University, W. Lafayette, IN.
25. J. R. BLOOMQUIST (2009) Molecular Design and Performance of Monovalent and Bivalent Inhibitors of Acetylcholinesterase for Control of Malaria. Department of Entomology and Nematology, University of Florida, Gainesville, FL.
26. J. R. BLOOMQUIST (2010) Molecular design and semi-field performance of monovalent and bivalent inhibitors of acetylcholinesterase for control of the malaria mosquito, *Anopheles gambiae*. Whitney Laboratory for Marine Bioscience, University of Florida, St. Augustine, Florida.
27. J. R. BLOOMQUIST (2011) Novel Chemistry for Control of the Malaria Mosquito, *Anopheles gambiae* and Other Insect Vectors. Meeting of the EPI Internal and External Scientific Advisory Committees, University of Florida, Lake Wauberg, Florida.

Industry (Presenting Author, *student co-author, #postdoc co-author)

1. J. R. BLOOMQUIST (1984) Insecticide Knockdown and the kdr Mechanism in the House Fly. Zoecon Corporation, Palo Alto, California.
2. J. R. BLOOMQUIST (1988) Mode of Action of Insecticides on the Mammalian $GABA_A$ Receptor and Voltage-Sensitive Sodium Channel. Eli Lilly Research Laboratories, Greenfield, Indiana.
3. J. R. BLOOMQUIST (1991) Interactions of Insecticides with Chloride Channels of Nerve and Muscle Cells. Merck, Sharp & Dohme Research Laboratories, Three Bridges, New Jersey.
4. J. R. BLOOMQUIST (1991) Physiological Mode of Action of the Polypeptide FMCTX. Natural Product Sciences and FMC Corporation, Princeton, New Jersey.
5. J. R. BLOOMQUIST (1991) Involvement of Ion Channels in Insecticide Mode of Action and Resistance. FMC Corporation, Princeton, New Jersey.
6. J. R. BLOOMQUIST (1992) Calcium Channels And Cholinergic Receptors as Potential Sites for New Insecticide Development. FMC Corporation, Princeton, New Jersey.
7. J. R. BLOOMQUIST (1993) Actions of Experimental Insecticides and Fluorescence Measurements in Insect Neurons. FMC Corporation, Princeton, New Jersey.
8. J. R. BLOOMQUIST (1993) Principles of Excitable Membrane Physiology in Insects. FMC Corporation, Princeton, New Jersey.

9. J. R. BLOOMQUIST (1993) Neurophysiological Approaches for Defining the Mode of Action of New Insecticides. FMC Corporation, Princeton, New Jersey.

10. J. R. BLOOMQUIST (1995) Involvement of Neurotransmitter Transporters in the Action of Neurotoxicants. Rhone-Poulenc Rorer, Inc., Collegeville, Pennsylvania.

11. J. R. BLOOMQUIST (2000) Pharmacological/Electrophysiological Studies of Omega-Atrachotoxin, as Insect-Selective Calcium Channel Toxin. FMC Corporation, Princeton, New Jersey.

12. J. R. BLOOMQUIST (2000) New Target Sites and Chemistries for Insecticides. FMC Corporation, Princeton, New Jersey.

13. J. R. BLOOMQUIST (2003) Review of Current and Emerging Modes of Insecticide Action. BASF Corp. Research Triangle Park, North Carolina.

14. J. R. BLOOMQUIST (2004) Natural and Synthetic Chemical Probes of the $GABA_A$ Receptor/Chloride Channel Complex. DuPont Agrochemicals, Wilmington, DE.

15. J. R. BLOOMQUIST (2007) Induction of a "Neuronal" Phenotype in Sf21 Insect Cells. DuPont Crop Protection, Stine-Haskell Research Center, Newark, Delaware.

16. J. R. BLOOMQUIST (2007) Current and Emerging Insecticide/Nematicide Modes of Action. Scynexis Corp., Animal Health Dept., Research Triangle Park, North Carolina.

17. J. R. BLOOMQUIST (2010) Induction of a "Neuronal" Phenotype in SF21 Insect Cells: A Convenient Source of Neuronal Proteins for HTS? Bayer CropScience, Monheim, Germany.

18. J. R. BLOOMQUIST (2011) Development of Insect Cell Lines as a Platform for Insecticide Discovery, and An Anomalous DMSO Effect We found Along the Way. Pfizer Animal Health, Kalamazoo, Michigan.

Summary: Volunteered Presentations

Presentations/year, last 5 years: 16/2009; 11/2010; 13/2011; 20/2012; 11/2013

Audience	Total
International	31
National	99
Regional	6
University	54
Total Presentations	190

International (Presenting Author, *student co-author, #postdoc co-author)

1. J. R. BLOOMQUIST and T. A. Miller (1984) Molecular Mechanisms in the House Fly Nervous System Conferring Insensitivity to Pyrethroids and Alkaloid Neurotoxins. 3rd International Conference on Neurotoxicology of Selected Chemicals, Little Rock, Arkansas.
2. J. R. BLOOMQUIST and T. A. Miller (1985) A Simple Bioassay for Detecting and Characterizing Insecticide Resistance. International Meeting on Neuropharmacology and Pesticide Action (Neurotox '85), Bath, England.
3. J. R. BLOOMQUIST and D. M. Soderlund (1986) Isotopic Flux Assays as Probes of Insecticide Action on Neuronal Ion Channels. 6th International Congress of Pesticide Chemistry, Ottawa, Ontario, Canada.
4. J. R. BLOOMQUIST and D. M. Soderlund (1988) The DDT/Pyrethroid Recognition Site of the Voltage-Sensitive Sodium Channel: Interactions with Alkaloid Activators and Sea Anemone Toxin. Poster, International Symposium on the Molecular Basis of Drug and Pesticide Action (Neurotox '88), Nottingham, England.
5. L. L. Payne, J. R. BLOOMQUIST, L. A. Pitifer, P. Marsella-Herrick, D. Sun, F. Wong, D. M. Soderlund, and D. C. Knipple (1989) Development of Probes for the Isolation of Presumptive Voltage-Sensitive Sodium Channel Genes From Insects. 1st International Symposium on Molecular Insect Science, Tucson, Arizona.
6. D. B. Gant, J. R. BLOOMQUIST, H. M. Ayad, and A. E. Chalmers (1990) A Comparison of Mammalian and Insect GABA Receptor Chloride Channels. 7th International Congress of Pesticide Chemistry, Hamburg, Germany.
7. J. R. BLOOMQUIST, R. ffrench-Constant, and R. Roush (1991) Excitation of Central Neurons by Dieldrin and Picrotoxinin in Susceptible and Cyclodiene-Resistant Strains of *Drosophila melanogaster* (Meigen). International Symposium on the Molecular Basis of Drug and Pesticide Action (Neurotox '91) Poster, Southampton, England.
8. R. P. Gajewski, J. L. Jackson, L. L. Karr, and J. R. BLOOMQUIST (1991) Spirosultam LY219048, A New Chemical Class of Neurotoxin Acting Upon the GABA Receptor/Chloride Ionophore Complex. International Symposium on the Molecular Basis of Drug and Pesticide Action (Neurotox '91) Poster, Southampton, England.
9. J. R. BLOOMQUIST (1993) Resistance Profile and Neuropharmacology of Experimental Chloride Channel-Directed Insecticides. 2nd International Symposium on Molecular Insect Science, Flagstaff, Arizona.

10. P. Carlier, Q.-H. Chen, A. Astha, D. Wong, J. Li, #J. Mutunga, P. Lam, M. Totrov, and J. R. BLOOMQUIST (2012) Designing inhibitors for potency against the G119S resistant mutant of Anopheles gambiae acetylcholinesterase. 11th Meeting on Cholinesterases, Kazan, Russia.

11. R. A. Nicholson, D. Leong, J.R. BLOOMQUIST, *J. Bempong, J. A. Dybas, L. P. Kinne, J. W. Lyga, and F. L. Marek (2000) Action of Insecticidal Arylalkylbenzhydrolpiperidines (BZPs) on Mammalian Brain in Vitro. Insect Toxicology 2000, Berkeley, California.

12. J. R. BLOOMQUIST (2001) Impact of Organochlorine, Pyrethroid, and Organophosphate Insecticides on Striatal Neurochemistry. 19th International Neurotoxicology Conference: Parkinson's Disease, Environment and Genes, Colorado Springs, Colorado.

13. J. BLOOMQUIST *C. Hild, *B. Monaco, *E. Chow, P. Carlier, and A. Gonzalez-Coloma (2002) Mode of Action of the Plant-Derived Silphinenes on Insect and Mammalian GABA Receptor/Chloride Channel Complex. 10th International Congress of Pesticide Chemistry, Basel, Switzerland.

14. *W. J. Geldenhuys, *K. Steelman, J. R. BLOOMQUIST, C. J. Van Der Schyf, and S. F. Malan (2003) Pharmacological Evaluation of Pentacyclo-undecylamine Derivatives as Novel Noncompetitive N-methyl-*D*-aspartate Receptor Antagonists. South African Academy of Pharmaceutical Sciences 24th Annual Congress, Durban, South Africa.

15. #W. J. Geldenhuys, J. Klein, S. F. Malan, J. R. Bloomquist, T. Murugesan, and C. J. Van Der Schyf (2004) Inhibition of Monoamine Oxidase B by Derivatives of Pentacyclo[5.4.0.$0^{2,6}$.$0^{3,10}$.$0^{5,9}$]-undecane. Poster, Microsomes and Drug Oxidation 2004. Chemical Biology in the Postgenome Era-New Approaches and Applications. Mainz, Germany.

16. *J. Kou and J. R. BLOOMQUIST (2005) Potentiating Effect of the K^{+}_{atp} Channel Blocker Glibenclamide on the Neurotoxicity of Complex I Inhibitors. Poster, 22nd International Neurotoxicology Conference; Environment and Neurodevelopmental Disorders, Research Triangle Park, North Carolina.

17. J. R. BLOOMQUIST and *D. R. Boina (2006) Analogs of a Bacterial Stilbene as New Insecticides/Nematicides. Poster; 11TH IUPAC International Congress of Pesticide Chemistry, Kobe, Japan.

18. J. R. BLOOMQUIST, *D. C. Klorig, D. Wong, and P. R. Carlier (2006) Bivalent anticholinesterases as structural probes in the development of selective mosquitocides. Poster; 11TH IUPAC International Congress of Pesticide Chemistry, Kobe, Japan.

19. *J. M. Mutunga, #T. D. Anderson, and J. R. Bloomquist (2007) Exploring the insect acetylcholinesterase (AChE) active site gorge: Toxicokinetic and AChE sequence analysis as prospects to molecular design of selective insecticides. Bioinformatics for Africa Conference and Workshop, Nairobi, Kenya.

20. P. R. Carlier, J. R. Bloomquist, #D. M. Wong, L. D. Williams, N. Deora, #T. Anderson, S. Paulson, A. Wysinski, E. Wong, R. Choudury, M. Totrov, and P. Lam (2007) Development of a mosquito-selective AChE inhibitor to control the malaria vector, *Anopheles gambiae*. Ninth International Meeting on Cholinesterase Biology, Suzhou, China.

21. *J. Mutunga, #T. Anderson, #D. Wong, J. Hartsel, S. Paulson, M. Totrov, P. Carlier and J. Bloomquist (2009) Novel carbamates for malaria vector control: Impact of recent developments and the future of insecticide use in malaria mosquito control. 2nd Kenya Scholars and Studies Association annual conference, Bowling Green State University, OH.

22. *J. Mutunga, #T. Anderson, *B. Jackson, #D. Wong, J. Hartsel, S. Paulson, M. Totrov, P. Carlier and J. Bloomquist (2009) Highly Selective Carbamates Towards the Malaria Mosquito, Anopheles

gambiae: Design, Synthesis, Potency and Toxicity Testing. 5th MIM Pan- African Malaria Conference. KICC, Nairobi, Kenya.

23. *L. Jenson, S. Paulson, and J. BLOOMQUIST (2009) Induction and Characterization of Ion Channels in *Anopheles gambiae* Cells. 5th MIM Pan-African Malaria Conference, Nairobi Kenya.

24. *D. Swale, J. Hartsel, M. Ma, P. Carlier, #T. Anderson, J. BLOOMQUIST (2009) Assessment of Enzyme Inhibition and Toxicity of Newly Designed *Anopheles gambiae* Selective Carbamates Against Other Mosquito Vectors and Agricultural Pests. Fifth MIM Pan-African Malaria Conference. Nairobi, Kenya.

25. #D. Wong, *D. Swale, J. Hartsel, M. Ma, P. Carlier, P. Lam, M. Totrov, J. BLOOMQUIST (2009) Mosquito-Selective Acetylcholinesterase Inhibitors to Control the Malaria Vector, *Anopheles gambiae*: experimental evidence for allosteric solvent effects and antagonism of inhibition. International Meeting on Cholinesterases, Sibenik, Croatia.

26. P. Carlier, J. Hartsel, M. Ma, #D. Wong, J. BLOOMQUIST, #T. Anderson, S. Paulson, A. Wysinski, E. Wong, R. Choudhury, M. Totrov, P. Lam (2009) Discovery of Highly Species-Selective, Contact Toxic Aryl Carbamates to Control *Anopheles gambiae*, the Mosquito Vector of Malaria. International Meeting on Cholinesterases, Sibenik, Croatia.

27. P. Carlier, L. Williams, M. Ma, J. BLOOMQUIST, #T. Anderson, E. Wong, R. Choudhury, M. Totrov, P. Lam (2009) Redesign of Tacrine to Achieve Potent and Selective Inhibition of *Anopheles gambiae* Acetylcholinesterase. International Meeting on Cholinesterases, Sibenik, Croatia.

28. *J. Mutunga, M. Ma, D. Wong, J. Hartsel, P. Carlier, J. BLOOMQUIST (2010) Exploration of Side Chain Branching and Fluorination of Experimental Carbamate Insecticides for Control of Anopheles gambiae. International Conference on Emerging Infectious Diseases. Atlanta, Georgia.

29. *D. Swale, P. Carlier, J. Hartsel, M. Ma, D. Wong, and J. BLOOMQUIST (2010) Selective Mosquitocidal Carbamates With Low Toxicity to Agricultural Pests: An Advantageous Property For Resistance Management. International Conference on Emerging Infectious Diseases. Atlanta, Georgia.

30. *L. J. Jenson and J. R. BLOOMQUIST (2010) Evaluation of insect cell lines as a platform for insecticide discovery research. International Conference on Emerging Infectious Diseases. Atlanta, Georgia.

31. D. Wong, J. Li, Q. Han, J. Mutunga, A. Wysinski, T. Anderson, H. Ding, T. Carpenetti, S. Paulson, P. Lam, M. Totrov, J. BLOOMQUIST, and P. Carlier (2012) Kinetic, pharmacological, and toxicological consequences of the G119S resistance mutation in acetylcholinesterase-1 of Anopheles gambiae (Akron). 11th Meeting on Cholinesterases, Kazan, Russia.

National (Presenting Author, *student co-author, #postdoc co-author)

1. J. R. BLOOMQUIST and D. L. Shankland (1981) The Mode of Action and Neurotoxicity of Mirex, Kepone, and Four Hydrogenated Analogs. National Meeting of the Entomological Society of America, San Diego, California.

2. J. R. BLOOMQUIST, T. A. Miller, and L. B. Jones (1983) Physiology of Flight and Escape Response in the Housefly During Insecticide Poisoning. National Meeting of the American Chemical Society, Washington, D.C.

3. J. R. BLOOMQUIST, P. M. Adams, and D. M. Soderlund (1986) Neurotoxic Insecticides Antagonize Chloride Uptake at the Mammalian $GABA_A$ Receptor-Chloride Channel Complex. National Meeting of the Society for Neuroscience, Washington, D.C.

4. J. R. BLOOMQUIST and D. M. Soderlund (1987) Pyrethroid Insecticides and DDT Modify Alkaloid-Dependent Activation of the Voltage-Sensitive Sodium Channel. National Meeting of the Society for Neuroscience, New Orleans, Louisiana.

5. J. R. BLOOMQUIST, R. E. Grubs, K. Vega, and D. M. Soderlund (1987) Resistance to Pyrethroid Insecticides in Temperature-Sensitive Paralytic Mutants of *Drosophila melanogaster*. National Meeting of the Entomological Society of America, Formal Conference on Genetics and Molecular Biology, Boston, Massachusetts.

6. J. A. Ottea, G. T. Payne, J. R. BLOOMQUIST, and D. M. Soderlund (1988) Interaction of an Insecticidal Isobutylamide with Voltage-Sensitive Sodium Channels. National Meeting of the Society for Neuroscience, Toronto, Canada.

7. J. A. Ottea, G. T. Payne, J. R. BLOOMQUIST, and D. M. Soderlund (1989) Action of N-Alkylamides at a Novel Insecticide Binding Site on Voltage-Sensitive Sodium Channels. National Meeting of the Entomological Society of America, San Antonio, Texas.

8. G. T. Payne, J. A. Ottea, J. R. BLOOMQUIST, and D. M. Soderlund (1989) Action of N-Alkylamides on Voltage-Sensitive Sodium Channels. National Meeting of the American Chemical Society, Miami, Florida.

9. J. R. BLOOMQUIST (1992) Experimental Phenylpyrazole Insecticides as Antagonists at the GABA Receptor/Chloride Channel complex. National Meeting of the Entomological Society of America, Baltimore, Maryland.

10. *D. N. Judge, H. J. Ferguson, and J. R. BLOOMQUIST (1992) Neurophysiological Characterization and Lipid Composition of Nerves in Susceptible and Insecticide-Resistant Insects. National Meeting of the Entomological Society of America, Baltimore, Maryland.

11. *H. J. Ferguson, A. J. LaLoggia, J. M. Cook, and J. R. BLOOMQUIST (1992) Action of b-Carboline Convulsants on the Nervous System of *Drosophila melanogaster* (L.). National Meeting of the Entomological Society of America, Baltimore, Maryland.

12. *L. E. Walker and J. R. BLOOMQUIST (1992) Pharmacology of the Alimentary System of the Imported Cabbageworm, *Peiris rapae* (L.). National Meeting of the Entomological Society of America, Baltimore, Maryland.

13. J. BLOOMQUIST, *E. King, *A. Wright, C. Mytilineou, and N. Castagnoli, Jr. (1993) MPP^+-Like Neurotoxicity of a Pyridinium Metabolite of Haloperidol. National Meeting of the Society for Neuroscience, Washington, D.C.

14. K. Krapcho, J. Johnson, R. Kral, E. Delmar, L. Hirning, J. BLOOMQUIST, J. Busby, R. Trovato, and H. Jackson (1995) Insecticidal and Mammalian Active Toxins from the Medically Important Agenelid Spider, *Tegenaria agrestis*. National Meeting of the Society for Neuroscience, San Diego, California.

15. J. R. BLOOMQUIST and *M. L. Kirby (1995) Pyrethroid and Organochlorine Insecticides as Causal Agents of Parkinsonism. Workshop on the Role of the Environment in Parkinson's Disease, National Institute of Environmental Health Sciences, Research Triangle Park, North Carolina.

16. *J. C. Matthews, E. A. Wong, P. K. Bender, J. R. BLOOMQUIST, and K. E. Webb (1995) Demonstration of Dipeptide Transport System Activity in the Omasal Epithelium of Sheep by Expression of mRNA in *Xenopus laevis* Oocytes. National Meeting of the American Society of Animal Science, Orlando, Florida.

17. J. R. BLOOMQUIST, *A. M. Wright, and *J. Bempong (1995) *In vitro* Neurotoxicity Assessment of Oxidative and Reductive Metabolites of Haloperidol. National Meeting of the Society of Toxicology, Baltimore, Maryland.

18. *M. Kirby, K. Castagnoli, and J. R. BLOOMQUIST (1995) Evaluation of the Pyrethroid Insecticide Deltamethrin in the MPTP/C57 Black Mouse Model of Parkinsonism. National Meeting of the Society of Toxicology, Baltimore, Maryland.

19. *M. L. Kirby and J. R. BLOOMQUIST (1996) Exposure to Organochlorine Insecticides and Parkinsonism. National Meeting of the Society for Neuroscience, Washington D.C.

20. *Y. X. Pan, J. R. BLOOMQUIST, E. A. Wong, and K. E. Webb, Jr. (1996) Expression of Sheep Omasal Peptide Transporters in *Xenopus laevis* Oocytes. National Meeting of the American Society of Animal Science, Rapid City, South Dakota.

21. B. G. Klein, *M. L. Kirby, *E. R. Freeborn, N. Castagnoli, and J. R. BLOOMQUIST (1997) Monoamine Oxidase (MAO)-Mediated Fluorescence of an MPTP Analog in Mouse Striatal Synaptosomes: A Potential Visual Marker for Susceptibility to MPTP-Induced Neurotoxicity. National Meeting of the Society for Neuroscience, New Orleans, Louisiana.

22. *M. L. Kirby and J. R. BLOOMQUIST (1997) Behavioral and Neurochemical Actions of the Insecticide Heptachlor and Their Relation to Environmentally-Induced Parkinsonism. National Meeting of the Society for Neuroscience, New Orleans, Louisiana.

23. G. W. Miller, *M. L. Kirby, J. R. BLOOMQUIST, and A. I. Levey (1997) Heptachlor Increases Dopamine Transporter Protein Expression: Possible Mechanism of Increased Risk of Parkinson's disease by Pesticides. National Meeting of the Society of Toxicology, Cincinnati, Ohio.

24. *M. L. Kirby and J. R. BLOOMQUIST (1997) Neurotoxicity of the Organochlorine Insecticide Heptachlor and its Role in Parkinsonism. National Meeting of the Society of Toxicology, Cincinnati, Ohio.

25. B. Klein, D. Jones, K. Fuhrman, and J. BLOOMQUIST (1998) *t*-THP: A potential visual marker for substrates of MPTP-induced neurotoxicity that is not a dopaminergic neurotoxin. 28th annual meeting of the Society for Neuroscience, Los Angeles, California.

26. T. D. Greenwood, J. R. BLOOMQUIST, M. D. Demers, D. C. White, and J. F. Wolfe (1998) Synthesis and comparison of the anticonvulsant activities of 3-aryl-2-substituted-4(3H)quinazolones and their pyrido[2,3-D]-4(3H)pyrimidone analogs. 26th National Medicinal Chemistry Symposium, Richmond, Virginia.

27. *E. R. Freeborn, R. Barlow, *M. L. Kirby, and J. R. BLOOMQUIST (1999) Relative contribution of transmitter release and GABA antagonism in the actions of cyclodienes on the murine nigrostriatum. 38th Annual Meeting of the Society of Toxicology, New Orleans, Louisiana.

28. #D. Karen, #P. Harp, #W. Li, and J. BLOOMQUIST (2000) Effects of Multiple Exposures of Chlorpyrifos or Permethrin on Murine Behavior and Striatal Cholinergic Biomarkers. National Meeting of the Society for Environmental Toxicology and Chemistry, Nashville, Tennessee.

29. W. Li, #D. Karen, #P. Harp, B. Klein, and J. BLOOMQUIST (2000) Murine Dopaminergic Pathways as Targets of Multiple Chlorpyrifos or Permethrin Exposures. National Meeting of the Society for Environmental Toxicology and Chemistry, Nashville, Tennessee.

30. J. BLOOMQUIST, #P. Harp, #D. Karen, and #W. Li (2000) Insecticide Action on Behavior and Striatal Cholinergic Biomarkers. National Meeting of the Society for Neuroscience, New Orleans, Louisiana.

31. W. Li, #P. Harp, #D. Karen, B. Klein, and J. BLOOMQUIST (2000) Striatal Dopaminergic Pathways as Target for the Insecticides Permethrin and Chlorpyrifos. National Meeting of the Society for Neuroscience, New Orleans, Louisiana.

32. *H. Chen, #Y. X. Pan, E. A. Wong, J. R. BLOOMQUIST, and K. E. Webb, Jr. (2000) Molecular Cloning and Functional Expression of a Chicken Intestinal Peptide Transporter (cPepT1) in *Xenopus* Oocytes and CHO Cells. National Meeting of the Poultry Science Association, Montreal, Canada.

33. #Y. X. Pan, E. A. Wong, J. R. BLOOMQUIST, and K. E. Webb, Jr. (2000) Molecular Cloning, In Vitro Expression, and Functional Characterization of an Ovine Gastrointestinal Peptide Transporter (oPepT1). National Meeting of the American Society of Animal Science, Baltimore, Maryland.

34. *H. Chen, #Y. Pan, E. A. Wong, J. R. BLOOMQUIST, K. E. Webb, Jr. (2000) Transport of Peptides in CHO Cells Expressing the Cloned Ovine Gastrointestinal Peptide Transporter (oPepT1). National Meeting of the American Society of Animal Science, Baltimore, Maryland.

35. #Y. X. Pan, H. Chen, L. Van, E. A. Wong, J. R. BLOOMQUIST, and K. E. Webb, Jr. (2001) Functional Expression of a Cloned Chicken Intestinal Peptide Transporter (cPepT1) in *Xenopus* Oocytes. National Meeting of the Federation of American Societies of Experimental Biology, Orlando, Florida.

36. #D. Karen, #P. Harp, #W. Li, #J. Gillette, and J. BLOOMQUIST (2001) Effects of Subchronic Exposures of Chlorpyrifos or Permethrin on Behavior and Striatal Cholinergic Biomarkers in C57BL/6 Mice. National Meeting of the Society of Toxicology, San Francisco, California.

37. #D. Karen, #W. Li, #P. Harp, #J. Gillette, B. Klein, and J. BLOOMQUIST (2001) Striatal Dopaminergic Pathways as Targets of Chlorpyrifos or Permethrin Exposures: Comparison with the Parkinsonian Neurotoxin MPTP. National Meeting of the Society of Toxicology, San Francisco, California.

38. *W. Geldenhuys, S. Malan, C. Van der Schyf, and J. BLOOMQUIST (2002) Interaction of Trishomocubane Analogs of Amantadine with the Dopamine Transporter. National Meeting of the Society for Neuroscience, Orlando, Florida.

39. *J. Kou and J. BLOOMQUIST (2002) Synergistic Interaction of Parkinsonian Neurotoxins and Blockers of ATP-Dependent Potassium Channels. National Meeting of the Society for Neuroscience, Orlando, Florida.

40. P. Carlier, *E. Chow, R. Barlow, and J. BLOOMQUIST (2002) Discovery of Non-Zwitterionic GABA(A) Agonists and a Superagonist. National Meeting of the American Chemical Society, Boston, Massachusetts.

41. #J. S. Gillette and J. R. BLOOMQUIST (2002) Modulation of Murine Striatal Dopamine Transporter Expression by the Pyrethroid Insecticide Permethrin. National Meeting of the Society of Toxicology, Nashville, Tennessee.

42. #W. J. Geldenhuys, *K. Steelman, S. F. Malan, J. R. BLOOMQUIST, and C. J. Van Der Schyf (2003) Pharmacological Evaluation of Pentacyclo-undecylamine Derivatives as Novel Noncompetitive N-methyl-*D*-aspartate Receptor Antagonists. Poster, National Meeting of the Society for Neuroscience, New Orleans, Louisiana.

43. *J. Kou, and J. R. BLOOMQUIST (2004) Interactions on striatal dopaminergic pathways following co-application of permethrin, chlorpyrifos, and MPTP. Poster, National Meeting of the Society for Neuroscience, San Diego, California.

44. #W. J. Geldenhuys, T. Murugesan, S. F. Malan, J. R. BLOOMQUIST, and C. J. Van der Schyf (2004) Molecular Modeling Studies on the Inhibition of Monoamine Oxidase B by Pentacyclo-undecylamines. Poster, National Meeting of the Society for Neuroscience, San Diego, California.

45. J. R. BLOOMQUIST, *E. Chow Clement, *Y. Zhang, and P. R. Carlier (2005) Synthesis and Pharmacology of New Dimeric Amides and ZAPA Analogs at the Murine $GABA_A$ Receptor-

Chloride Channel Complex. Poster, National Meeting of the Society for Neuroscience, Washington, D.C.

46. #W. J. Geldenhuys, *D. C. Klorig, S. F. Malan, J. R. BLOOMQUIST, and C. J. Van der Schyf (2005) Pharmacological Evaluation of Adamantane Amines that Bind to the PCP and Not the MK-801 Binding Site in the *N*-Methyl-D-Aspartate (NMDA) Receptor. Poster, National Meeting of the Society for Neuroscience, Washington, D.C.

47. J. R. BLOOMQUIST and *D. R. Boina (2006) Blockers of Anion Transporters as Nematicidal Alternatives to Methyl Bromide. Symposium speaker; National Meeting of the American Chemical Society, Division of Agrochemicals, San Francisco, California.

48. *D. R. Boina and J. R. BLOOMQUIST (2006) Lethal and sublethal effects of anion transport blockers against larvae of European corn borer, *Ostrinia nubilalis* (Hubner). Poster, National Meeting of the Entomological Society of America, Indianapolis, Indiana.

49. #T. D. Anderson, D. C. Klorig, *D. R. Boina, D. Wong, P. R. Carlier, S. L. Paulson and J. R. BLOOMQUIST (2006) Bivalent anticholinesterases as structural probes in the development of selective mosquitocides. Poster, National Meeting of the Entomological Society of America, Indianapolis, Indiana.

50. J. Kozuska, P. Carlier, I. Paulsen, E. Clement, J. BLOOMQUIST, S. Dunn, and W. Dreyden (2006) Superagonism at the $GABA_AR$ Explained by Changes in Desensitization Kinetics. Poster, National Meeting of the Society for Neuroscience, Atlanta, Georgia.

51. #T. D. Anderson, D. C. Klorig, #D. Wong, P. R. Carlier, S. L. Paulson and J. R. BLOOMQUIST (2007) Biochemical and molecular characterization of bivalent anticholinesterases to the malarial mosquito. Poster, National Meeting of the American Chemical Society, Chicago, Illinois.

52. *D. Boina and J. R. BLOOMQUIST (2007) Toxicity and mode of action of the anion transporter blockers against the European corn borer. Poster, National Meeting of the American Chemical Society, Boston, Massachusetts.

53. #T. D. Anderson, D. C. Klorig, #D. Wong, P. R. Carlier, S. L. Paulson and J. R. BLOOMQUIST (2007) Biochemical and molecular characterization of bivalent anticholinesterases to the malarial mosquito. Poster, National Meeting of the Entomological Society of America, San Diego, California.

54. *J. M. Mutunga, #T. D. Anderson, #D. Wong, P. R. Carlier, and J. R. BLOOMQUIST (2008) Differential potency of bivalent anticholinesterases as a model for the molecular design of selective insecticides. Poster, National Meeting of the American Chemical Society, Philadelphia, Pennsylvania.

55. *L. J. Jenson, *D. C. Klorig, and J. R. BLOOMQUIST (2008) Induction of Neuronal Phenotype in Sf21 Insect Cells. Poster, National Meeting of the American Chemical Society, Philadelphia, PA.

56. P. R. Carlier, *J. Hartsel, #M. Ma, #D. Wong, J. R. BLOOMQUIST, #T. D. Anderson, S. L. Paulson, A. Wysinski, E. Wong, #R. Choudhury (2008) Highly species-selective acetylcholinesterase inhibitors for control of *Anopheles gambiae*, the mosquito vector of malaria. National Meeting of the American Chemical Society, Philadelphia, Pennsylvania.

57. H. A. Bustamante, *C. A. Dodd, J. R. BLOOMQUIST, K. L. Wong, and B. G. Klein (2008) The potassium-sensitive ATP channel in Parkinson's disease: Bioactivation and metabolism of MPTP in mice exposed to the type 2 diabetes drug glibenclamide. Poster, National Meeting of the Society for Neuroscience, Washington, D.C.

58. *C. A. Dodd, J. R. Bloomquist, B. S. Jortner, and B. G. Klein (2008) The effect of manganese upon MPTP-induced toxicity of the mouse dopaminergic mesocortical pathway: Western blot analysis of

alpha synuclein, dopamine transporter and synaptophysin in frontal cortex. Poster, National Meeting of the Society for Neuroscience, Washington, D.C.

59. *J. M. Mutunga, #T. D. Anderson, A. Wysinski, *B. T. Jackson, *J. A. Hartsel, S. L. Paulson, P. R. Carlier, and J. R. BLOOMQUIST (2008) Toxicity of Highly Selective Carbamates Towards the Malaria Mosquito, *Anopheles gambiae.* National meeting of the American Society of Tropical Medicine and Hygiene, New Orleans Louisiana.

60. *S. A. Casterlow, D. Wong, R. Choudhury, P. Carlier, J. BLOOMQUIST, S. Paulson, and E. Wong (2008) Purification of Recombinant Anopheles gambiae Acetylcholinesterase as an Instrument for Novel Insecticide Development for Malaria Control. Annual Biomedical Research Conference for Minority Students (ABRCMS). Orlando, Florida.

61. *J. M. Mutunga, #T. D. Anderson, *B. T. Jackson, *J. A. Hartsel, S. L. Paulson, P. R. Carlier, and J. R. BLOOMQUIST (2008) Toxicity of highly selective carbamates towards the malaria mosquito, *Anopheles gambiae*. National meeting of the Entomological Society of America, Reno, Nevada.

62. P. R. Carlier, *L. D. Williams, J. R. BLOOMQUIST, #T D. Anderson, S. L. Paulson, and A. Wysinski (2008) Bump-hole reoptimization of the tacrine pharmacophore achieves selective inhibition of *Anopheles gambiae* acetylcholinesterase. National Meeting of the American Chemical Society, New Orleans, Louisiana.

63. #L. Srigiriraju, P. J. Semtner, #T. D. Anderson, I. V. Sharakhov, and J. R. BLOOMQUIST (2008) Esterase-based resistance in the tobacco adapted form ofthe green peach aphid, *Myzus persicae* (Sulzer) in the eastern United States. National Meeting of the American Chemical Society, Philadelphia, Pennsylvania.

64. #T. D. Anderson, *D. C. Hsu, P. R. Carlier, P. Lam, M. M. Totrov, and J. R. BLOOMQUIST (2008) Biochemical characterization of a putative insecticide target site in the acetylcholinesterase catalytic gorge of green peach aphid. Poster, National Meeting of the American Chemical Society, Philadelphia, Pennsylvania.

65. #T. D. Anderson, *J. Hartsel, #M. Ma, *J. Mutunga, #D. Wong, A. Wysinski, *B. Jackson, S. Paulson, P. R. Carlier, and J. R. BLOOMQUIST (2008) Biochemical and toxicological characterization of highly-selective anticholinesterases developed for malarial mosquito control. Poster, National Meeting of the American Chemical Society, Philadelphia, Pennsylvania.

66. #D. M. Wong, P. R. Carlier, P. C.-H. Lam, M. M. Totrov, J. R. BLOOMQUIST (2009) Development of Mosquito-Selective Acetylcholinesterase Inhibitors to Control the Malaria Vector, Anopheles Gambiae: Comparative Sequence and Structure Approach. National Meeting of the American Chemical Society, Washington, D.C.

67. J. R. BLOOMQUIST, #T. D. Anderson, P. R. Carlier, J. Githure, *J. A. Hartsel, P. Lam, #M. Ma, H. Manda, *J. M. Mutunga, S. L. Paulson, M. Totrov, #D. M. Wong, and E. Wong (2009) Molecular Design and Semi-Field Performance of Highly Selective Carbamates For Control of the Malaria Mosquito, *Anopheles gambiae.* National Meeting of the American Chemical Society, Washington, D.C.

68. *D. Swale, #T. Anderson, *J. Hartsel, #M. Ma, P. Carlier, and J. BLOOMQUIST (2009) Assessment of Enzyme Inhibition and Toxicity of Newly Designed Anticholinesterases on Mosquito Vectors and Agricultural Pests. National Meeting of the American Chemical Society, Washington, DC.

69. *Y. Jiang, F. Ekström, P. Carlier, *J. Hartsel, #M. Ma, and J. R. BLOOMQUIST (2009) Safety Evaluation of Newly Developed Carbamates. National Meeting of the American Chemical Society, Washington, DC.

70. *L. J. Jenson, S. L. Paulson, and J. R. BLOOMQUIST (2009) Induction and Characterization of Ion Channels in Sf21 Insect Cells. National Meeting of the American Chemical Society, Washington, D.C.

71. *J. Mutunga, *J. Hartsel, #M. Ma, #L. Srigiriraju, #D. Wong, *B. Jackson, #T. Anderson, S. Paulson, P. Carlier, and J. BLOOMQUIST (2009) Highly Selective Carbamates for Anopheles Gambiae Acetylcholinesterase: Effects of Pharmacokinetics on Toxicity to Mosquitoes. National Meeting of the American Chemical Society, Washington, D.C.

72. M. Ma, J. A. Hartsel, #T. D. Anderson, *J. Mutunga, D. M. Wong, P. C.-H. Lam, M. M. Totrov, J. R. BLOOMQUIST, P. R. Carlier (2010) Anopheles gambiae-selective, meta-substituted aryl carbamates for control of malaria. National Meeting of the American Chemical Society, San Francisco, California.

73. *Y. Jiang, F. Ekström, P. Carlier, J. Hartsell, M. Ma, and J. R BLOOMQUIST (2010) Evaluation of new carbamate insecticides for neurotoxicity to non-target species. National Meeting of the American Chemical Society, San Francisco, California.

74. *D. R. Swale, D. M. Wong, J. A. Hartsel, M. Ma, P. R. Carlier, P. C.-H. Lam, M. M. Totrov, J. R. BLOOMQUIST (2010) Experimental evidence for DMSO-dependent inhibition of mosquito-selective carbamates and acetylcholinesterase of the malaria vector, Anopheles gambiae. National Meeting of the American Chemical Society, San Francisco, California.

75. R. Koganemaru, D. M. Miller, Z. N. Adelman, J. R. BLOOMQUIST (2010) Cuticular analysis of field collected bed bugs (Cimex lectularius L.) that are known to be pyrethroid resistant. National Meeting of the Entomological Society of America, San Diego, California.

76. *J. M. Mutunga, M. Ma, D. M. Wong, J. A. Hartsel, M. Totrov, P. R. Carlier and J. R. BLOOMQUIST (2010) Side-chain exploration and halogenation of selective carbamates for the control of African malaria mosquito, Anopheles gambiae. National Meeting of the Entomological Society of America, San Diego, California.

77. Q.-H. Chen, D. Wong, *J. Mutunga, F. Astha, J. Li, P. Lam, M. Totrov, J. BLOOMQUIST, and P. Carlier (2011) Resistance-breaking acetylcholinesterase inhibitors for the malaria mosquito, Anopheles gambiae. National meeting of the American Chemical Society, Denver, Colorado.

78. *D. Swale, P. Carlier, M. Ma, M. Totrov, D. Wong, and Jeffrey R. BLOOMQUIST (2011) Enzyme kinetic analysis of allosteric solvent effects when screening mosquito-selective carbamates against Anopheles gambiae. National meeting of the American Chemical Society, Denver, Colorado.

79. *L. J. Jenson, D. Diykov, and J. R. BLOOMQUIST (2011) Mosquito cell lines as an economical platform for discovery of new insecticides to control malaria. National meeting of the American Chemical Society, Denver, Colorado.

80. *J. Mutunga, M. Ma, M. Totrov, J. Li, P. Carlier, and J. BLOOMQUIST (2011) Differential potency and substrate kinetics of acetylcholinesterase peripheral site ligands: the molecular basis of selectivity for Anopheles gambiae. National meeting of the American Chemical Society, Denver, Colorado.

81. *L. M. Klein, K. S. Hockey, B. A. Rzigalinski, S. L. Puri, J. R. BLOOMQUIST, B. G. Klein (2011) Exploring the feasibility of high throughput neurotoxicity screens for designing mammalian studies of multiple pesticide exposure. National meeting of the Society for Neuroscience, Washington, D.C.

82. P. R. Carlier, J. A. Hartsel, Q.-H. Chen, D. M. Wong, *J. M. Mutunga, F.N.U. Astha, J. Li, P. C. Lam, M. M. Totrov, J. R. BLOOMQUIST (2011) Anopheles gambiae-selective and resistance-breaking acetylcholinesterase inhibitors for malaria control. National meeting of the American Society of Tropical Medicine and Hygiene, Philadelphia, Pennsylvania.

83. *J. M. Mutunga, M. Ma, J. A. Hartsel, P. R. Carlier, J. R. BLOOMQUIST (2011) Differential toxicity of conventional and experimental carbamates to susceptible and carbamate-resistant mosquitoes: Lesson towards the design of resistance-breaking insecticides. National meeting of the Kenya Scholar and Studies Association, Bowling Green University, Bowling Green, Ohio.

84. P. R. Carlier, J. A. Hartsel, Q.-H. Chen, M. Ma, D. M. Wong, J. Li, J. R. BLOOMQUIST, P. C. Lam, M. Totrov (2012) Structural determinants of Anopheles gambiae-selectivity for acetylcholinesterase inhibitor mosquitocides. National Meeting of the American Society of Tropical Medicine and Hygeine, Atlanta, Georgia.

85. J. R. BLOOMQUIST, N. Larson, R. Islam, M. Ma, P. R. Carlier (2012) Evaluation of novel synthetic mosquitocides for control of Aedes aegypti and Anopheles gambiae. National Meeting of the American Society of Tropical Medicine and Hygeine, Atlanta, Georgia.

86. #F. Tong, P. Carlier, J. Li, M. Totrov, and J. BLOOMQUIST (2012) Fluorescent Assay of Acetylcholinesterase Ligand Interactions for Design of Insecticides Targeting the Mosquito Vector of Malaria, Anopheles gambiae. National meeting of the American Chemical Society, Philadelphia, Pennsylvania.

87. *L. J. Jenson, C. Knauer, D. Woods, A. Townley, P. Meeus, and J. R. BLOOMQUIST (2012) High throughput screening technique for detecting the presence of insecticide target site proteins expressed in non-engineered insect cell lines. National Meeting of the American Chemical Society, Philadelphia, Pennsylvania.

88. *D. Swale, P. Carlier, M. Totrov, K. Temeyer, A. Perez de Leon, A. Li, J. BLOOMQUIST (2012) Unique pharmacological properties of Rhipicephalus (Boophilus) microplus and Phlebotomus papatasi acetylcholinesterases: Providing leads for the control of arthropod-vectored diseases. National Meeting of the American Chemical Society, Philadelphia, Pennsylvania.

89. *N. Larson, #R. Islam, P. Carlier, M. Ma, and J. BLOOMQUIST (2012) Evaluation of Novel Potassium Channel-Directed Compounds as New Mosquitocides for Control of *Aedes aegypti* and *Anopheles gambiae*. National Meeting of the American Chemical Society, Philadelphia, Pennsylvania.

90. F. Astha, Q. Chen, D. M. Wong, *J. M. Mutunga, J. Li, P. C. Lam, M. M. Totrov, J. R. BLOOMQUIST, P. R. Carlier (2012) Five-membered ring heterocyclic carbamates and carboxamides: The quest for resistance-breaking, species-selective acetylcholinesterase inhibitors against the malaria mosquito. National Meeting of the American Chemical Society, Philadelphia, Pennsylvania.

91. *L. J. Jenson and J. R. BLOOMQUIST (2012) Detecting the presence of insecticide target sites expressed in non-engineered insect cell lines: a high throughput screening approach. National Meeting of the Entomological Society of America, Knoxville, Tennessee.

92. *D. R. Swale and J. R. BLOOMQUIST (2012) Mode of action of N,N-Diethyl-meta-Toluamide (DEET) on the insect nervous system. National Meeting of the Entomological Society of America, Knoxville, Tennessee.

93. *C. J. Holderman, P. E. Kaufman, *D. R. Swale, #F. Tong, and J. R. BLOOMQUIST (2012) Determination of resistance mechanisms within field populations of Haematobia irritans through toxicological and biochemical techniques. National Meeting of the Entomological Society of America, Knoxville, Tennessee.

94. M. Tsikolia, U. R. Bernier, N. M. Agramonte, N. Tabanca, D. E. Wedge, K. C. Chalaire, J. J. Becnel, G. G. Clark, K. J. Linthicum, M. R. Coy, *D. R. Swale, and J. R. BLOOMQUIST (2013) Trifluoromethylphenyl amides as novel insecticides and fungicides. National meeting of the American Mosquito Control Association, Atlantic City, New Jersey.

95. *L. Jenson, #B. Sun, and J. R. BLOOMQUIST (2013) Voltage-sensitive potassium channels expressed by hormone treatment in mosquito cell lines. National Meeting of the American Chemical Society, Indianapolis, Indiana.

96. *N. R. Larson, #B. Sun, P. Carlier, M. Ma, and J. R. BLOOMQUIST (2013) Evaluation of synthetic compounds as novel mosquitocides targeting potassium channels for control of Aedes aegypti and Anopheles gambiae. National Meeting of the American Chemical Society, Indianapolis, Indiana.

97. *D. R. Swale, #B. Sun, and J. R. BLOOMQUIST (2013) Neurotoxicity and mode of action of *N,N*-diethyl-*meta*-toluamide (DEET) on the insect nervous system and mammalian neurons. National Meeting of the American Chemical Society, Indianapolis, Indiana.

98. *L. Jenson and J. R. BLOOMQUIST (2013) Voltage-sensitive potassium channels expressed by hormone treatment in mosquito cell lines. National Meeting of the Entomological Society of America, Ausitn, Texas.

99. #F. Tong, S. Thany, and J. R. BLOOMQUIST (2013) Pre-treatment of *Aedes aegypti* mosquitoes with sublethal dose of imidacloprid impairs behavioral avoidance induced by lemon oil and DEET. National Meeting of the Entomological Society of America, Ausitn, Texas.

Regional (Presenting Author, *student co-author, #postdoc co-author)

1. J. R. BLOOMQUIST and T. A. Miller (1984) The Use of Simple Reflex Pathways for the Study of Insecticide Poisoning in the House Fly. 20th Regional Meeting of the Western Nerve Net, Los Angeles, California.

2. J. R. BLOOMQUIST and *H. J. Ferguson (1991) Pharmacological Profile of Neuronal GABA Receptors in Cyclodiene-Resistant Insects. 63rd Annual Meeting of the Eastern Branch of the Entomological Society of America, Richmond, Virginia.

3. J. R. BLOOMQUIST, *D. Dabbs, and R. D. Fell (1993) Characterization of the Biological Activity of Hemipteran Salivary Toxins. 65th Annual Meeting of the Eastern Branch Meeting of the Entomological Society of America, Williamsburg, Virginia.

4. *E. Chow Clement, J. R. BLOOMQUIST, Y. Zhang, and P. R. Carlier (2004) Synthesis and Evaluation of New GABA Amides: Further Study of Tether-length Dependence and Discovery of Six New Competitive GABAAR Antagonists. Southeast Regional Meeting of the American Chemical Society, Research Triangle Park, North Carolina.

5. *D. Boina and J. BLOOMQUIST (2006) Toxicity of Voltage-Sensitive Chloride Channel Blockers Against Insects and Nematodes. Poster; Regional meeting of the Eastern Branch of the Entomological Society of America, Charlottesville, Virginia.

6. C. J. Holderman, P. E. Kaufman, F. Tong, and J. R. BLOOMQUIST (2012) A revised look at horn fly, *Haematobia irritans,* insecticide resistance in Florida. Regional Meeting of the Southeastern Branch of the Entomological Society of America, Little Rock, Arkansas.

University (Presenting Author, *student co-author, #postdoc co-author)

1. D. M. Soderlund, D.C. Knipple, and J.R. BLOOMQUIST (1987) Molecular Genetics of Nerve Insensitivity Resistance to Insecticides. Cornell Biotechnology Program Symposium, Ithaca, New York.

2. D. Soderlund, J. BLOOMQUIST, and D. Knipple (1988) Expression of Neurotransmitter Receptors and Ion Channels in *Xenopus* Oocytes. Cornell Biotechnology Program Symposium, Ithaca, New York.

3. J. R. BLOOMQUIST (1994) Adventures in Neuroscience with Cockroaches, Flies, and Caterpillars: The Rest of the Story. Department of Entomology, Virginia Tech, Blacksburg, Virginia.

4. *Y. X. Pan, E. A. Wong, J. R. BLOOMQUIST, and K. E. Webb, Jr. (1997) Poly(A)$^+$ RNA from Sheep Omasal Epithelium Induces Expression of a Peptide Transport Protein(s) in *Xenopus laevis* Oocytes. 13th Annual Research Symposium of Virginia Tech, Blacksburg, Virginia.

5. *M. L. Kirby and J. R. BLOOMQUIST (1997) Neurotoxicity of the Organochlorine Insecticide Heptachlor and its Role in Parkinsonism. 13th Annual Research Symposium of Virginia Tech, Blacksburg, Virginia.

6. *S. Bathiche and J. R. BLOOMQUIST (1997) Neural Control: Getting an American Cockroach to Drive a Car. 13th Annual Research Symposium of Virginia Tech, Blacksburg, Virginia.

7. *A. L. Bowie and J. R. BLOOMQUIST (2000) The Role of Calcium Channels in the Effects of Pesticides in the Central Nervous System. Medical Student Research Day, University of Maryland School of Medicine, Baltimore, Maryland.

8. *A. L. Bowie and J. R. BLOOMQUIST (2000) The Role of Calcium Channels on the Effects of Pesticides in the Central Nervous System. 16th Annual Research Symposium of Virginia Tech, Blacksburg, Virginia.

9. *J. Kou and J. R. BLOOMQUIST (2002) Effect of the Two Pharmacological Agents Reserpine and Glibenclamide and the Pesticide Rotenone on Dopamine Release in the ICR Mouse. Virginia Tech Graduate Student Assembly Symposium, Blacksburg, Virginia.

10. *C. V. Hild and J. R. BLOOMQUIST (2002) What Effect do Silphinenes have on *Drosophila* CNS? Virginia Tech Graduate Student Assembly Symposium, Blacksburg, Virginia.

11. J. R. BLOOMQUIST (2003) Physiology and Pharmacology of Ligand-Gated Chloride Channels in Insects and Mammals. Department of Entomology Seminar, Virginia Tech.

12. J. R. BLOOMQUIST (2003) Dopaminergic Neurotoxicity of Insecticides. Interdisciplinary Neuroscience Seminar Series, Virginia Tech, Blacksburg, Virginia.

13. #W. Geldenhuys, K. Steelman, S. Malan, J. BLOOMQUIST, and C. Van der Schyf (2003) Pharmacological Evaluation of Pentacyclo-Undecylamine Derivatives as Novel Uncompetitive N-Methyl-D-Aspartate (NMDA) Receptor Antagonists. School of Pharmacy, Dept. of Pharmaceutical Science, Texas Tech University Health Sciences Center, Amarillo, Texas.

14. #W. J. Geldenhuys, S. F. Malan, *D. C. Klorig, J. R. BLOOMQUIST, and C. J. Van der Schyf (2005) Design of an Adamantane Amine that Binds to the PCP Binding Site of the NMDA Receptor. Poster; Texas Tech University Health Sciences Center, School Of Pharmacy, Fourth Annual Research Days, Amarillo, Texas.

15. J. R. BLOOMQUIST (2005) New Anticholinesterases for Malaria Control. Department of Entomology, Virginia Tech, Blacksburg, Virginia.

16. *D. Boina and J. BLOOMQUIST (2006) Toxicity of Voltage-Sensitive Chloride Channel Blockers Against Insects and Nematodes. Poster; 22nd Annual Graduate Student Assembly Research Symposium, Virginia Tech, Blacksburg, Virginia.

17. #T. D. Anderson, D. C. Klorig, *D. R. Boina, D. Wong, P. R. Carlier, S. L. Paulson and J. R. BLOOMQUIST (2006) Bivalent anticholinesterases as structural probes in the development of selective mosquitocides. Poster; Vector-Borne Disease Research: The Road Ahead. October 13-15, Virginia Tech, Blacksburg, Virginia.

18. *J. Mutunga, #T. D. Anderson, and J. R. BLOOMQUIST (2007) Inhibition of German Cockroach (*Blattella germanica*) acetylcholinesterase by dimeric tacrines. Graduate Research Symposium, Virginia Tech, Blacksburg, Virginia.

19. *D. Boina and J. R. BLOOMQUIST (2007) Effects of anion transport blockers on growth, development and survival of European corn borer, *Ostrinia nubilalis* (Hübner). Graduate Research Symposium, Virginia Tech, Blacksburg, Virginia.

20. J. R. BLOOMQUIST (2007) Comparative analysis of the acetylcholinesterase (AChE) active site gorge in medically-important insects. Vector Borne Disease Symposium, Virginia Tech, Blacksburg, Virginia.

21. *J. M. Mutunga, T. D. Anderson and J. R. BLOOMQUIST (2007) Exploring the Insect Acetylcholinesterase (AChE) Active Site Gorge: Toxicokinetic and AChE Sequence Analysis as Prospects to Molecular Design of Selective Insecticides for the Control of Disease Vectors. Vector Borne Disease Symposium, Virginia Tech, Blacksburg, Virginia.

22. *D. Boina and J. R. BLOOMQUIST (2007) Effects of anion transporter blockers on insects. The Dean's forum on health, food, and nutrition, Virginia Tech, Blacksburg, Virginia.

23. *J. M. Mutunga, #T. D. Anderson and J. R. BLOOMQUIST (2007) Exploring the Insect Acetylcholinesterase (AChE) Active Site Gorge: Toxicokinetic and AChE Sequence Analysis as Prospects to Molecular Design of Selective Insecticides for the Control of Disease Vectors. Vector Borne Disease Symposium, Virginia Tech, Blacksburg, Virginia.

24. *J. M. Mutunga, #T. D. Anderson and J. R. BLOOMQUIST (2008) Differential Bivalence-Dependent Potency of Anticholinesterases as a Model for the Molecular Design of Selective Insecticides. 24th GSA Research Symposium, Virginia Tech, Blacksburg, Virginia.

25. *L. J. Jenson, D. C. Klorig, and J. R. BLOOMQUIST (2008) Induction of Neuronal Phenotype in Sf21 Insect Cells. 24th GSA Research Symposium, Virginia Tech, Blacksburg, Virginia.

26. #D. M. Wong, P. R. Carlier, #T. D. Anderson, *D. C. Hsu, E. A. Wong, #R. Choudhury, P. Lam, M. Totrov, and J. R. BLOOMQUIST (2008) Towards a species-selective acetylcholinesterase inhibitor to control the mosquito vector of malaria, *Anopheles gambiae.* 3rd Annual Virginia Tech Structural Biology Symposium, Blacksburg, Virginia.

27. P. R. Carlier, *J. Hartsel, #M. Ma, #D. Wong, J. R. BLOOMQUIST, #T. D. Anderson, S. L. Paulson, A. Wysinski, E. Wong, R. Choudhury (2008) Highly species-selective acetylcholinesterase inhibitors for control of *Anopheles gambiae*, the mosquito vector of malaria. Dean's Forum on Infectious Disease, Virginia Tech, Blacksburg, Virginia.

28. P. R. Carlier, *L. D. Williams, #M. Ma, J. R. BLOOMQUIST, #T. D. Anderson, #L. Srigiriraju, S. Paulson, A. Wysinski, E. A. Wong, and #R. Choudhury (2008) Bump-hole reoptimization of the tacrine pharmacophore achieves selective inhibition of *Anopheles gambiae* acetylcholinesterase. Dean's Forum on Infectious Disease, Virginia Tech, Blacksburg, Virginia.

29. P. R. Carlier, #T. D. Anderson, #D. M. Wong, *D. C. Hsu, *J. Hartsel, #M. Ma, E. A. Wong, #R. Choudhury, P. Lam, M. M. Totrov, J. R. BLOOMQUIST (2008) Towards a Species-Selective Acetylcholinesterase Inhibitor to Control the Mosquito Vector of Malaria, *Anopheles gambiae*. Dean's Forum on Infectious Disease, Virginia Tech, Blacksburg, Virginia.

30. *J. M. Mutunga, #T. D. Anderson, #D. M. Wong, P. R. Carlier, and J. R. BLOOMQUIST (2008) Differential Potency of Bivalent Anticholinesterases as a Model for the Molecular Design of Selective Insecticides. Dean's Forum on Infectious Disease, Virginia Tech, Blacksburg, VA.

31. *D. Swale, #T. Anderson, *J. Hartsel, #M. Ma, P. Carlier, and J. BLOOMQUIST (2009) Assessment of Enzyme Inhibition and Toxicity of Newly Designed Anticholinesterases on Mosquito

Vectors and Agricultural Pests. Virginia Tech Graduate Student Assembly: Research Symposium. Blacksburg, Virginia.

32. *Y. Jiang, F. Ekström, P. Carlier, *J. Hartsel, M. Ma, and J. R. BLOOMQUIST (2009) Safety Evaluation of Newly Developed Carbamates. Virginia Tech Graduate Student Assembly: Research Symposium. Blacksburg, Virginia.

33. *L. J. Jenson, S. L. Paulson, and J. R. BLOOMQUIST (2009) Induction and Characterization of Ion Channels in Sf21 Insect Cells. Virginia Tech Graduate Student Assembly: Research Symposium. Blacksburg, Virginia.

34. *L. J. Jenson and J. R. BLOOMQUIST (2010) Induction and inhibition of a neuronal phenotype in Spodoptera frugiperda (sf21) insect cells. Annual Research Day, Emerging Pathogens Institute, University of Florida, Gainesville, Florida.

35. *D. Swale, P. Carlier, J. Hartsell, M. Ma, and J. R BLOOMQUIST (2010) Purification of recombinant Anopheles gambiae acetylcholinesterase as an instrument for novel insecticide development for malaria control. Annual Research Day, Emerging Pathogens Institute, University of Florida.

36. *Y. Jiang, P. Carlier, J. Hartsell, M. Ma, F. Ekström, and J. R BLOOMQUIST (2010) Non-Target toxicity evaluation of novel carbamate insecticides for control of the malaria mosquito, *Anopheles gambiae*. Annual Research Day, Emerging Pathogens Institute, University of Florida, Gainesville, Florida.

37. *L. J. Jenson and J. R. BLOOMQUIST (2011) Mosquito Cell Lines as an Economical Platform for the Discovery of New Insecticides to Control Malaria. Annual Research Day, Emerging Pathogens Institute, University of Florida, Gainesville, Florida.

38. *D. R. Swale and J. R. BLOOMQUIST (2011) Enzyme Kinetic Analysis of Allosteric Solvent Effects When Screening Mosquito-Selective Carbamates and the Malaria Vector, Anopheles gambiae. Annual Research Day, Emerging Pathogens Institute, University of Florida, Gainesville, Florida.

39. #R. M. Islam, P.R. Carlier, and J. R. BLOOMQUIST (2011) A Fluorescence Method for Screening Compounds Designed to Selectively Control the Mosquito Vector of Malaria, Anopheles gambiae. Annual Research Day, Emerging Pathogens Institute, University of Florida, Gainesville, Florida.

40. #D. Diykov and J. R. BLOOMQUIST (2011) Voltage-Sensitive Ion Channel Screening in Patch Clamped Anopheles gambiae Sua-1B cells. Annual Research Day, Emerging Pathogens Institute, University of Florida, Gainesville, Florida.

41. #F. Tong, J. Coats, and J. R. BLOOMQUIST (2011) Toxic effects of Essential Oils to Aedes aegypti Larvae and Effects of Monoterpenoids on the GABA Receptor of American Cockroach. Annual Research Day, Emerging Pathogens Institute, University of Florida, Gainesville, Florida.

42. #D. Swale, P. Carlier, and J. BLOOMQUIST (2011) Newly Designed Mosquitocidal Carbamates Which Possess Low Toxicity Toward Agricultural Pests: An Advantageous Property for Resistance Management. University of Florida, NSF Research Day: Broader Impacts, Gainesville, Florida.

43. *N. Larson, #J. Mutunga, P. Carlier, M. Ma, and J. R. BLOOMQUIST (2012) Evaluation of Novel Potassium Channel-Directed Compounds as New Mosquitocides for Control of Aedes aegypti and Anopheles gambiae. Annual Research Day, Emerging Pathogens Institute, University of Florida, Gainesville, Florida.

44. *D. Swale, P. Carlier, M. Totrov, K. Temeyer, J. Bloomquist (2012) Elucidating unique pharmacological properties of Rhipicephalus (Boophilus) microplus acetylcholinesterase: Providing

leads for the control of tick vectored diseases. Annual Research Day, Emerging Pathogens Institute, University of Florida, Gainesville, Florida.

45. *L. Jenson, J. Becnel, and J.R. BLOOMQUIST (2012) Morphological Responses to 20-Hydroxyecdysone and Veratridine in Spodoptera frugiperda (Sf21) Insect Cells Through Ultrastructure. Annual Research Day, Emerging Pathogens Institute, University of Florida, Gainesville, Florida.

46. *C. J. Holderman, P. E. Kaufman, *D. R. Swale, #F. Tong, and J. R. BLOOMQUIST (2012) Determination of resistance mechanisms within field populations of Haematobia irritans through toxicological and biochemical techniques. Annual Research Day, Emerging Pathogens Institute, University of Florida, Gainesville, Florida.

47. #R. M. Islam and J. R. BLOOMQUIST (2012) Agonists of Muscle Glutamate Receptor Induce Paralysis in Aedes aegypti Larvae. Annual Research Day, Emerging Pathogens Institute, University of Florida, Gainesville, Florida.

48. F. Astha, Q-H. Chen, D. M. Wong, J. M. Mutunga, C. Slebodnick, P. C-H. Lam, M. M. Totrov, J. R. BLOOMQUIST, and P. R. Carlier (2012) Small ring heterocycle carbamates and carboxamides: the search for resistance-breaking, species-selective acetylcholinesterase inhibitors against the malaria mosquito. Virginia Tech Symposium on Vector-Borne Disease Research: Parisitology, Vector Biology, Vaccine, and Drug Discovery, Blacksburg, Virginia.

49. E. Camerino, D. M. Wong, #J. M. Mutunga, M. Ma, J. R. BLOOMQUIST, and P. R. Carlier (2012) Trifluoromethylketones: Potential new toxicophores towards Anopheles gambiae. Virginia Tech Symposium on Vector-Borne Disease Research: Parasitology, Vector Biology, Vaccine, and Drug Discovery, Blacksburg, Virginia.

50. *N. Larson, #R. Islam, P. Carlier, M. Ma, and J. R. BLOOMQUIST (2013) Novel mode of action of synthetic mosquitocides for control of disease vector mosquitoes, *Aedes aegypti* and *Anopheles gambiae*. Annual Research Day, Emerging Pathogens Institute, University of Florida, Gainesville, Florida.

51. *L. Jenson, #B. Sun, and J.R. BLOOMQUIST (2013) Voltage-sensitive potassium channels expressed by hormone treatment in mosquito cell lines. Annual Research Day, Emerging Pathogens Institute, University of Florida, Gainesville, Florida.

52. *R. M. Islam and J. R. BLOOMQUIST (2013) Agonists of muscle glutamate receptor induce paralysis in *Aedes aegypti* larvae by blocking synaptic transmission and depolarizing the membrane potential. Annual Research Day, Emerging Pathogens Institute, University of Florida, Gainesville, Florida.

53. *R. M. Islam and J. R. BLOOMQUIST (2013) Agonists of muscle glutamate receptor induce paralysis in *Aedes aegypti* larvae by blocking synaptic transmission and depolarizing the membrane potential. North Central Florida Society for Neuroscience, McKnight Brain Institute, University of Florida, Gainesville, Florida.

54. J. R. BLOOMQUIST (2013) Evaluation of new insecticides for control of the malarial mosquito. University of Florida Innovations for International Development Symposium, University of Florida, Gainesville, Florida.

OTHER PROGRAM RECOGNITION

Press Releases and Other Media Dissemination of Research Accomplishments

University of Florida (2010-present)

A press release on our mosquito research projects was prepared by Mr. Thomas Nordlie of IFAS as part of "Bug Week@UF": (http://bugs.ufl.edu/?recent_works=mosquito_net), as well as the main UF Research News links for May 23, 2013.

Press releases about our second FNIH-funded project, "Voltage-Sensitive Potassium Channel as a New Target for Mosquitocides" appeared in 2011 on the FNIH website, (http://www.fnih.org/press/releases/fnih-awards-nearly-6-million-grants-malaria-control-research) and UF IFAS website (http://news.ifas.ufl.edu/tag/jeffrey-bloomquist/).

Virginia Tech (1989-2009)

A newspaper story about the carbamate patent (issued in 2012) was printed in the Roanoke VA Times in 2012, but relates to studies done while I was at Virginia Tech.

The FNIH-sponsored research project was listed as an example of research and scholarship in the fiscal year 2006 annual report, sent out by the Virginia Tech Office of the Vice President for Research. It was the 8th largest grant award at Virginia Tech for fiscal year 2006.

Drs. Sally Paulson and Jeff Bloomquist were shown in a publicity picture on the main page of the Virginia Tech website and highlighting the FNIH project. This picture was also used at the Latham Hall building dedication in September of 2006.

Dr. Bloomquist (2006) was interviewed by Ms. Katja Gloger (Glogerk@aol.com) of Stern Magazine Washington about the FNIH mosquito control project.

Dr. Bloomquist (2006) was interviewed by John Christoffersen (jchristoffersen@ap.org) of the Associated Press as an expert on the toxic properties of alpha-thujone, a component of absinthe. He was recommended as an expert by Prof. John Casida. The report went out over the wire services.

Publicity surrounding the FNIH mosquito project appeared in several venues. A press release was written in conjunction with MaryAnn Johnson of University Relations. Versions of this press release appeared on the College and Virginia Tech websites, and was part of the College of Agriculture and Life Sciences (CALS) "Connections" newsletter for Fall of 2005: (http://www.cals.vt.edu/news/connections/connections-2005-fall.pdf), as well as in stories published in the Roanoke Times (6/28/05, "Tech Takes on Pests in Project" by Kevin Miller) and Virginia Tech Magazine, vol. 28(1), p. 6, 2005.

In spring 2003, a press release was prepared with Mr. Stewart MacInnis, CALS public relations coordinator, by invitation of the American Chemical Society. The Society officers selectively publicize work that they think has broad public appeal, and requested nontechnical summaries from about 600 out of the roughly 8500 abstracts submitted for the New Orleans meeting. Out of this 600, 10-12 research news releases are written, and 6-10 press briefings are conducted on site. United Press International conducted a telephone interview with me while at the meeting, which was posted on the world wide web: http://www.upi.com/Science_News/2003/03/24/Data-link-insecticide-and-Parkinsons/UPI-57061048557214/. The interview was then posted by the British Broadcasting Corporation: http://news.bbc.co.uk/1/hi/health/2881431.stm. Similar postings appeared on other news sites as well.

Awards Received by Students and Postdoctoral Scientists

University of Florida (2010-present)

M.S. student Nick Larson was awarded the 2014 Pauline O. Lawrence Scholarship ($1000) in Physiology/Biochemistry/Toxicology by the Dept. of Entomology and Nematology, Univ. of Florida.

Ph.D. student Lacey Jenson was awarded the 2014 John A. Mulrennan Sr. Outstanding Ph.D. Student Award ($1000) by the Dept. of Entomology and Nematology, Univ. of Florida.

Ph.D. student Lacey Jenson was awarded the 2013 Pauline O. Lawrence Scholarship ($1000) in Physiology/Biochemistry/Toxicology by the Dept. of Entomology and Nematology, Univ. of Florida.

Dr. Daniel Swale was winner of the 2013 American Chemistry Society AGRO Division New Investigator Award ($1000), at the national meeting in Indianapolis, IN.

Lacey Jenson (Ph.D. student) won first place ($300) in the student poster competition at the 2013 national meeting of the American Chemical Society in Indianapolis, IN.

Ms. Lacey Jenson (Ph.D. student) and Mr. Nick Larson (M.S. student) were each awarded a $785 travel grant to participate in the 2013 national meeting of the American Chemical Society in Indianapolis, IN.

Dr. Fan Tong was one of three finalists for the 2012 American Chemistry Society AGRO Division New Investigator Award, and was provided $1000 to attend the national meeting in Philadelphia, Pennsylvania.

Ms. Lacey Jenson was the recipient of a $2000 R. Eldred Carpenter J. Memorial Scholarship from the Florida Fertilizer and Agrichemical Association, 2012.

Mr. Daniel Swale and Ms. Lacey Jenson (Ph.D. students), as well as Mr. Nick Larson (M.S. student) were each awarded a $780 travel grant from the Division of Agrochemicals to participate in the 2012 national meeting of the American Chemical Society in Philadelphia, Pennsylvania.

Dr. James Mutunga (Ph.D. student at VT), Mr. Daniel Swale, and Ms. Lacey Jenson (Ph.D. students) were each awarded a $770 travel grant from the Division of Agrochemicals to participate in the 2011 national meeting of the American Chemical Society in Denver, Colorado.

Mr. Daniel Swale (Ph.D. student) was awarded a $840 travel grant from the Division of Agrochemicals to participate in the 2010 national meeting of the American Chemical Society in San Francisco, California.

Virginia Tech (1989-2009)

Daniel Swale (First Place) and James Mutunga (Second Place) were recognized in the graduate student poster competition in the Agrochemicals Division of the American Chemical Society in Washington, D.C. in August 2009. The first place award consisted of $400 and the second place award was $300.

Daniel Swale and Lacey Jenson each received $300 travel awards from the Gladys and Clarence Hill Travel Scholarship Fund as well as $400 each from the W.B. Alwood Entomological Society (Virginia Tech), to attend the 5th MIM Pan-African Malaria Conference in Nairobi, Kenya, 2009.

Lacey Jenson won a 3rd place award in the 2009 Virginia Tech Graduate Student Assembly Research Symposium, Blacksburg, Virginia.

Lacey Jenson was also awarded a $400 grant by the 2009 Virginia Tech Graduate Research Development Program, Blacksburg, Virginia.

Daniel Swale, Lacey Jenson, and James Mutunga were each given a student travel award to attend the national meeting of the American Chemical Society in Washington, D.C. in August 2009. The award consisted of $600 for your travel, $170 for meeting registration (ACS member student registration rate), and a $70 ACS grad student membership fee, for a total reimbursement of $840 each.

Mr. James Mutunga (Ph.D. student) and Ms. Lacey Jenson (M.S. student) were each awarded a $600 travel grant from the Division of Agrochemicals to participate in the graduate student research poster symposium at the 2008 national meeting of the American Chemical Society in Philadelphia, PA.

James Mutunga's poster "Differential Potency of Bivalent Anticholinesterases as a Model for the Molecular Design of Selective Insecticides" was chosen as the first place award winner in the student competition in the Division of Agrochemicals, national meeting of the American Chemical Society in Philadelphia, PA (2008).

Mr. James Mutunga (Ph.D. student) and Ms. Lacey Jenson (M.S. student) received $600 and $200 Virginia Tech GSA Research Awards, respectively, to support their graduate research (2008).

Mr. James Mutunga (Ph.D. student) was awarded a travel grant to participate in the 2008 national meeting of the American Society of Tropical Medicine and Hygiene in New Orleans LA. The award included airfare, complimentary registration and $800.

At the 23rd Graduate Students Assembly Annual Research Symposia (Spring, 2007), James Mutunga tied for 2nd place in poster presentations under the Agriculture, Natural and Life Sciences group. A certificate and $225 cash prize were issued.

Raj Boina was awarded a $600 travel grant to participate in the graduate student research poster symposium at the 2007 national meeting of the American Chemical Society in Boston, MA. At the meeting, he placed third in the graduate student poster competition and won a $100 prize.

Raj Boina was selected to receive the first Graduate Research Fellowship from the David W. and Lillian Francis Scholarship fund. The research fellowship is for Fall '06 - Spring '07.

Mr. Boina also received a $400 travel grant from the VT Graduate Student Assembly to attend the national meeting of the Entomological Society of America, Indianapolis, IN, 2006.

Jinghong Kou won first prize in a student research competition (category of general neurotoxicity) at the 22nd International Neurotoxicology Conference, held at Research Triangle Park, NC, 9/11-9/13, 2005. She was awarded a plaque, $300, and a year's free subscription to the journal *NeuroToxicology*. The title of her poster was: "Potentiating Effect of the K^+_{ATP} Channel Blocker Glibenclamide on the Neurotoxicity of Complex I Inhibitors."

Raj Boina applied for and was awarded a $500 grant from the Virginia Tech Graduate Research Development program to support his dissertation research (2005).

Dr. Jeffrey Gillette, a post-doctoral fellow working in my laboratory, was selected as the second place winner in the recent Neurotoxicology Specialty Section poster competition held at the annual Society of Toxicology meeting in Nashville, Tennessee, in 2002. The award consisted of a check in the amount of $300 and an award certificate.

Dr. Jeff Gillette was awarded a $610 postdoctoral travel grant from Research and Graduate Studies, VPI&SU, to present two posters at the Society of Toxicology national meeting held in San Francisco, March of 2001.

Ethan Freeborn (M.S. student) was awarded a $500 travel grant from the National Capitol Area Chapter of the Society of Toxicology to attend the national meeting in New Orleans, Louisiana, in March, 1999.

PROFESSIONAL SERVICE RELATED TO RESEARCH

Service as an officer of an academic or professional association (last 5 years)

Member, Editorial Board, *Invertebrate Neuroscience* (2001-present)

Member, Editorial Board, *Pesticide Biochemistry and Physiology* (2007-present)

Associate Editor and Editorial Board, *Pest Management Science* (2007-2012)

Executive Editor and Editorial Board, *Pest Management Science* (2013-present)

Served as member of the Division of Agrochemicals New Investigator Award (postdoctoral) Candidate Selection Panel, American Chemical Society. The award was presented at the ACS National Meeting, Denver Colorado, 2011, to Dr. Cody Howard.

Served as a topical "Champion" and as hoc member of the 2011 Program Committee of the Division of Agrochemicals, American Chemical Society in the area of "Developments in Integrated Pest Management and Resistance Management."

Meetings, panels, workshops, etc., led or organized (last 5 years)

Served as an organizer for the 13th IUPAC International Conference on Pesticide Chemistry, subcommittees on mode of action and resistance (John Clark, Chair). It will be held concurrently with the 248th American Chemical Society National Meeting and Exposition in San Francisco, CA on August 10-14, 2014.

Co-organized (with Dr. Troy Anderson, Virginia Tech and Dr. John Clark, Univ. of Massachusetts) a symposium, "Integrated Vector and Resistance Management" for the 2012 national ACS meeting in Philadelphia. The symposium had 13 speakers, was international in scope, with one speaker from England and others from all over the US. A proceedings of the meeting was published as a special issue of *Pesticide Biochemistry and Physiology*.

Served as co-organizer (with Drs. Keiji Tanaka and Yoshi Ozoe) and chaired a session of invited papers in a symposium (Molecular Targets for Insecticide Discovery) held at the 12th International Congress of Pesticide Chemistry, held in Melbourne Australia, July, 2010.

Organized an award symposium for Dr. David Soderlund, recipient of the International Award in Agrochemicals, American Chemical Society. The symposium had 13 speakers and was held at the national meeting of the American Chemical Society, Philadelphia, PA, August, 2008. The proceedings of the symposium will be published as a special edition of *Pesticide Biochemistry and Physiology*.

I was one of three co-organizers (along with John Clark of the University of Massachusetts and Hitoshi Kawada of Nagasaki University) of a vector control symposium, held in conjunction with Pan Pac 2008-the Pan Pacific Conference on Pesticide Chemistry, Honolulu, HI, June 1-5, 2008.

Manuscripts and Grant Proposals Reviewed (number of papers/proposals, last 5 Years)

Manuscripts

American Chemical Society Symposium Series (2)
American Journal of Physiology - Gastrointestinal and Liver Physiology (1)
Archives of Insect Biochemistry and Physiology (5)
Aquatic Toxicology (1)
Biochemica et Biophysica Acta (1)
Biochemical Pharmacology (2)
Bioorganic and Medicinal Chemistry (1)
Bioorganic and Medicinal Chemistry Letters (1)
Chemical Research in Toxicology (1)
Chemico-Biological Interactions (1)
Comparative Biochemistry and Physiology (1)
Insect Biochemistry and Molecular Biology (5)
Invertebrate Neuroscience (1)
Journal of Biochemical Toxicology (2)
Journal of Economic Entomology (5)
Journal of Insect Physiology (1)
Journal of Medical Entomology (2)

Journal of Neurobiology (1)
Journal of Neurochemistry (1)
Molecular Pharmacology (1)
Journal of Pharmacology and Experimental Therapeutics (2)
Life Science (2)
Neuropharmacology (1)
NeuroToxicology (3)
Pest Management Science (6)
Pesticide Biochemistry and Physiology (8)
Proceedings of the National Academy of Sciences USA (2)
Toxicological Sciences (3)
Toxicology and Applied Pharmacology (1)
Toxicology Letters (4)

Grant proposals

Reviewer (2013) for the Innovative Vector Control Consortium, Liverpool School of Tropical Medicine, sponsored by the Bill and Melinda Gates Foundation (12).
Reviewer (2012) for the Innovative Vector Control Consortium, Liverpool School of Tropical Medicine, sponsored by the Bill and Melinda Gates Foundation (12).
Reviewer (2011) for the Innovative Vector Control Consortium, Liverpool School of Tropical Medicine, sponsored by the Bill and Melinda Gates Foundation (12).
Reviewer (2011) for the BP Gulf Research Initiative, Competition 2, administered by the Office of Research & Economic Development, Louisiana State University (1).
Reviewer (2010) for the Innovative Vector Control Consortium, Liverpool School of Tropical Medicine, sponsored by the Bill and Melinda Gates Foundation (1)
Reviewer (2010) for University of South Florida College of Public Health Interdisciplinary Research Development Grant program (1)
Reviewer (2008) for the Innovative Vector Control Consortium, Liverpool School of Tropical Medicine, sponsored by the Bill and Melinda Gates Foundation (15)

TEACHING AND ADVISING

New courses developed, revision of courses, new instructional techniques at UF.

A one credit seminar course, "Insecticide Toxicology" (ENY 6934) was developed and offered in the fall semester of 2010. The course consisted of several lectures given by the instructor to get everyone up to speed on toxicological principles, and then each student used a class period to present a seminar on the topic of their choice, as approved by the instructor. Students were evaluated on the basis of the quality of their presentations, as well as participation in class discussions.

I volunteered to teach Insect Toxicology when Prof. Mike Scharf moved to Purdue University in 2011. Insect Toxicology (6651C) was then revised to harmonized to take into account Mike Scharf's lectures. The laboratory was also revised so that it was centered upon student research projects tailored to individual student needs, and away from "canned" labs with weekly lab reports. As evidence of the value of this approach, one of the students (Lorena Lopez) lab work was so good that a co-authored on a research paper derived from this lab exercise was submitted to *J. Econ. Entomol.* (2013, in revision).

A special study in Insect Neurophysiology was offered in the fall semester of 2013 for students who wanted more in depth immersion in this field beyond that offered in Dr. Hahn's Insect Physiology course. I completely revamped and updated my lectures from when I last taught Insect Physiology at Virginia Tech (2008). There were 13 lectures on the following topics: Nervous System and Neurons, Extracellular Recording, The Resting Potential, Action Potential Ion Currents and Intro to

Voltage Clamp, Calcium Action Potentials and Neurosecretion, Electrical and Chemical Synapses, Biogenic Amines and Neuropeptides, Neuromuscular Physiology, Structure and Function of Muscle, Mechanoreception, Gustation, Olfaction, and Vision. Evaluations were by quantity and quality of class participation, as well as a comprehensive final written exam.

A new Insect Neuroethology Seminar (ENY 6934) was taught to 10 students in Spring 2014, and audited by Dr. Faith Oi. The course began with four lectures by the instructor to bring everyone up to speed on basics of insect neurophysiology, and elementary concepts and techniques in neuroethology. The students performed enthusiastically, discussions were lively, and many of the slide presentations assembled by the students were excellent.

Course Evaluations

Course(s)	Category	My class
ENY 6934 (Fall 2010)	Instructor overall	5.00
ENY 6651C (Spring 2011)	Instructor overall	2.80
ENY 6651C (Spring 2012)	Instructor overall	5.00
ENY 6651C (Spring 2013)	Instructor overall	5.00
ENY 6934 (Spring 2014)	Instructor overall	4.33

Year in and year out, dept. and college evaluations average ca. 4.3-4.6.

Graduate Student and Postdoctoral Advising

Undergraduate Advising (describe) NA

Student/Postdoc	Degree	Year (Institution)	Current or Last Known Position
Alesia Wright	M.S.	1994 (VT)	M.D., Private medical practice in Chesapeake, VA
Mike Kirby	Ph.D.	1998 (VT)	Instructor, Univ. of Wisconsin, Regional Campus (as of 2008)
Ethan Freeborn	M.S.	1999 (VT)	M.D., Carillion Medical Center, Radford
Jinghong, Kou	Ph.D.	2005 (VT)	Postdoc, Bradley University Med. School (as of 2008)
Werner Geldenhuys	Ph.D.	2003 (VT)*	Assoc. Prof., Dept. of Pharmaceutical Sci. NEOCOM *Degree from Univ. of Potchefstroom, South Africa, Research at VT, funded by grant from the Park Foundation
Raj Boina	Ph.D.	2007 (VT)	National Institute of Plant Health Management, India
James Mutunga	Ph.D. Postdoc	2011 (VT) 2011-2012 (UF)	Postdoc, ICIPE, Nairobi, Kenya
Lacey Jenson	M.S. Ph.D.	2009 (VT) 2013 (UF)	Postdoc, Dept. of Entomology, Virginia Tech
Daniel Swale	M.S. Ph.D.	2009 (VT) 2012 (UF)	Postdoc, Dept. of Anesthesiology and Pharmacology, Vanderbilt University
Ying Jiang	M.S.	2009 (VT)	M.D., Neurosurgeon, Shanghai, China
Nick Larson	M.S.	2014 (UF)	Ph.D. student, Dept. of Entomology, Virginia Tech
Dr. Paul Harp	Postdoc	1999 (VT)	Staff Scientist at Philip Morris Company

Dr. Wen Li	Postdoc	1999-2000 (VT)	Research Scientist, VMRCVM
Dr. Daniel Karen	Postdoc	2000 (VT)	Private Business
Dr. Jeff Gillette	Postdoc	2000-2003 (VT)	Professor of Biology, VA Western Community College
Dr. Yuanxiang Pan	Postdoc	1999-2001 (VT)	Assoc. Prof., Dept. of Food Science and Human Nutrition, Univ. of Illinois
Dr. Troy Anderson	Postdoc	2006-2008 (VT)	Assist. Prof., Dept. of Entomology, Virginia Tech
Dr. Pathi Srigiriraju	Postdoc	2008-2009 (VT)	DowElanco, India
Dr. Dawn Wong	Postdoc	2009 (VT)	Postdoc, Dept. of Chemistry, Virginia Tech
Dr. Dmitry Diykov	Postdoc	2010-2012 (UF)	Presently residing in Germany
Dr. Roopali Yadav	Postdoc	2012-2014 (UF)	Postdoc, Dept. of Pharmacology, Creighton Univ.
Dr. Rafique Islam	Postdoc	2010-present (UF)	Currently employed
Dr. Fan Tong	Postdoc	2010-present (UF)	Currently employed
Dr. Baonan Sun	Postdoc	2012-present (UF)	Currently employed
Dr. Aaron Gross	Postdoc	2014-present (UF)	Currently employed

COMMITTEE AND OTHER SERVICE AT UF

Served as initial faculty advisor for the newly established UF Global Medical Brigades student group, led by Ms. Tami Segal and Mr. James Patrinely. Since 2004, Global Brigades has mobilized thousands of university students and professionals through nine skill-based service programs to improve quality of life in under resourced communities. The UF GMB would be an outlet for students to help set up a medical clinic biyearly in health-service deprived communities in Honduras or Panama.

I sponsored three Department seminar speakers as a way to get more integrated into UF departmental activities in 2011. Dr. Uli Bernier gave a seminar on 1/13/11, and I am arranging closer research ties with his group. I also hosted Drs. Jeff Scott (3/3/11) and David Soderlund (11/10/11), both of the Dept. of Entomology, Cornell University, for departmental seminars, as well as Professor John Clark (3/19/13). Troy Anderson visited UF and delivered a department seminar on 10/3/13.

Served as Marshall for 2011 University of Florida graduation commencement ceremony, May 1st.

Served as a small group facilitator for a NIFA grants workshop, organized by Doug Archer, with scientists and administrators from the UF, USDA, and FAMU attending (2010).

I have been involved in two visits to the EPI by the Florida State University System Board of Governors, and presented a short synopsis of our research efforts to them (2009, 2010).