FQPA Science Review Board Biographical Sketches
June 16-18, 2009

1. Dr. Michael Adams is Professor of Entomology and Neuroscience, as well as, the Director of the Graduate Program in Neuroscience at the University of California, Riverside. His research focuses on the biological chemistry and molecular physiology of signaling in the nervous system. His work, in part, examines the mechanisms by which paralytic venoms (e.g., in spiders and scorpions) disrupt synaptic transmission. His research also explores the applications of specific toxin-receptor interactions in both medicine and agriculture. In medicine, specific ion channel modification by chemical agents such as toxins or drug mimics is emerging as a strategy for treatment of stroke, convulsive syndromes and chronic pain. In agriculture, genes for toxins that specifically target insect ion channels may be genetically engineered into insect-specific pathogens to constitute novel biological insecticides. Another area of research focuses on neuropeptides which regulate developmental and behavioral processes. The epitracheal endocrine system in insects and its secretory product, the ecdysis-triggering hormone (ETH), provide a model system for examining the relationships between gene expression, development, and animal behavior. He teaches graduate and undergraduate courses in Entomology and Neuroscience.

2. Dr. John F. Bowyer is a research pharmacologist with the Food and Drug Administration. He has been active in research related to the neurotoxicology of substituted amphetamines (amphetamine, methamphetamine, ecstasy, e.g.) and the role of catecholaminergic systems in neurotoxicity for over 20 years. His recent studies have focused on the characterization of the various aspects of the neurotoxicity produced by substituted amphetamines, which have previously been unknown or ignored by applying the techniques of immunohistochemistry, neurochemistry and gene expression to understand the mechanisms behind these neurotoxicities. For example, Dr. Bowyer applied the techniques of cDNA array technology (molecular biology) to determine how neurotoxic insults alter gene expression to find relevant biomarkers of neurotoxic insult and mechanisms involved in repair and adaptation to damage.

3. Dr. Penelope Fenner-Crisp is a private consultant. Her areas of expertise include human health and environmental risk assessment, toxicology, science policy and its integration into regulatory decision-making and familiarity with environmental regulatory programs and practices, all of which are a continuation of her activities and responsibilities during her 22 years at EPA where she served as a staff toxicologist in the Office of Drinking Water followed by senior management positions in the Office of Pollution Prevention and Toxics and the Office of Pesticide Programs. She is the former Executive Director of the Risk Science Institute of the International Life Sciences Institute (ILSI), a global, non-profit, scientific organization dedicated to seeking scientific solutions to important public health issues related to food and nutrition, food safety, water quality, chemical safety and environmental health and assessment of human health and environmental risk.

4. Dr. Mari S. Golub is a staff toxicologist with the California Environmental Protection Agency (Cal/EPA) and Adjunct Professor of Environmental Toxicology at the University of California Davis (UCDavis). She is a diplomat of the American Board of Toxicology. At Cal/EPA she specializes in risk assessment for reproductive and developmental toxicants and at UCDavis she conducts NIH and USEPA supported research in the area of developmental

neurobehavioral toxicology. She has served on study section for NIH, as a member and chair of NTP review panels under the Center for Environment Research on Human Reproduction, on USEPA panels on Framework for Risk Assessment, Workshop on Low Dose Effects in Endocrine Disruption, on WHO/IPCS panel on Health Effects of Aluminum. She has published over 150 papers in the peer-reviewed literature and served as editor of two books.

5. Dr. Richard Greenwood is a research scientist and lecturer in the School of Biological Sciences at the University of Portsmouth, and is the University Research Degrees Coordinator. For 20 years he worked on the design, synthesis and toxicity of pyrethroid insecticides, and in particular on the pharmacokinetics of these compounds in insects. More recently he has worked on the toxicodynamics of the neonicotinoid insecticide imidacloprid. He has applied multivariate analytical techniques to this area, with the aim of evaluating the relationships between physicochemical properties and the toxicokinetic behaviour of insecticides.

6. Dr. Gaylia Jean Harry is Head of the Neurotoxicology Group in the Laboratory of Molecular Toxicology at the National Institute of Environmental Health Sciences, National Institutes of Health (NIH) in Research Triangle Park, North Carolina. She has adjunct appointments in the Toxicology Programs of both University of North Carolina/Chapel Hill and Duke University. Her research interests include developmental neurotoxicology, neuroimmunology, and assessing injury and repair responses of the nervous system. She has served on numerous national and international committees and working groups with reference to neurotoxicology including the World Health Organization, USEPA, International Life Sciences Institute, as well as state and local environmental agencies. She has served as an ad hoc member of numerous EPA Scientific Review panels.

7. Dr Ian R. Mellor is a Research Lecturer in the School of Biology at the University of Nottingham, UK. His research over the last 22 years has focused on the structure and function of numerous ion channels and on natural and synthetic toxins that interact with them to alter their properties. Major research topics have involved studies of ion channel forming natural and synthetic peptides, polyamines and polyamine-containing toxins that act on ionotropic glutamate receptors and nicotinic acetylcholine receptors, and more recently studies on the pharmacology of *N*-methyl-D-aspartate receptors containing different subunits and on the mode and site of action of pyrethroid insecticides on voltage-gated sodium channels. All of these research projects have used electrophysiological techniques to directly study ion channel function. His research has resulted in 50 peer reviewed publications as well as numerous other published abstracts, book chapters and research communications. His research has involved collaborations with scientists in USA, Russia, Italy, Denmark, Egypt, Poland, Bulgaria, Romania and UK.

8. Dr. Toshio Narahahshi is John Evans Professor of Pharmacology in the Department of Molecular Pharmacology and Biological Chemistry at Northwestern University Feinberg School of Medicine, Chicago, Illinois. . His area of major research interest is cellular and molecular neuropharmacology and neurotoxicology. He is involved in research specifically related to ion channel pharmacology and toxicology. He has published extensively in his area of expertise and has received numerous distinguished awards and honors for his research contributions. He has held positions at the University of Tokyo, the University of Chicago and Duke University.

9. Dr. Nu-may Ruby Reed is a staff toxicologist with the California Environmental Protection Agency's (Cal/EPA) Department of Pesticide Regulation (DPR) where she is the lead scientist on risk assessment issues in the Health Assessment Section of the Medical Toxicology Branch. Her research interests are in evaluating health risks and developing risk assessment guidelines for pesticides. She has been on several Cal/EPA and DPR working groups that initiate, research, and revise risk assessment guidelines and policies, and represented her department in task forces on community concerns and emergency response, risk management guidance, and public education. Dr. Reed serves as an Ad hoc member of the USEPA FIFRA Scientific Advisory Panel and a member to committees of National Academies, National Research Council.

10. Dr. Frederic J. Seidler is Research Professor in the Department of Pharmacology & Cancer Biology. He has published in the areas of developmental pharmacology and toxicology, neuropharmacology and neurochemistry, and cell differentiation and growth regulation. His main focus is the interaction of drugs, hormones and environmental factors with the developing organism, especially the nervous system. His most important contributions involve the effects of fetal exposure to drugs of abuse, particularly tobacco and nicotine, drugs used in preterm labor, and neuroactive pesticides. More recently, he has focused on how fetal chemical and drug exposures lead to the onset of diseases in adulthood. He has published over 300 peer-reviewed articles and is a recipient of the 1996 Board of Publications Award from the Society of Toxicology. He has served as a reviewer for a variety of NIH Special Emphasis Panels, for the Centers for Disease Control/National Center for Environmental Health/The Agency for Toxic Substances and Disease Registry Peer Review for Protocols and for other scientific review panels, and is a reviewer for numerous scholarly journals.

11. Dr. Sonya K. Sobrian is Associate Professor of Pharmacology at the Howard University College of Medicine in Washington DC. Her current research focus is the life-span consequences of prenatal exposure to cocaine and/or nicotine, neurodevelopmental animal models of psychiatric diseases (i.e., depression and autism), and a new interest in acupuncture/exercise and drug addiction. She was awarded an AAAS Congressional Science and Engineering Fellowship and spent one year on Capitol Hill. She is a member of several scientific societies devoted to understanding the behavioral and developmental alterations that result from genetic and environmental perturbations of the nervous system during the pre- and peri-natal period. She served as President of on of these societies, the Neurobehavioral Teratology Society, 2000-2001. She is currently a member of the NBTS Council, is their representative to the AAALAC, International, where she serves as Vice-Chair of the Board of Trustees, and is on the Editorial Advisory Board of NT&T.

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