

AWARD WINNERS FOR 2008



Randy D. Blakely, PhD ***ASPET-Julius Axelrod Award***

Randy D. Blakely, Ph.D., Allan D. Bass Professor of Pharmacology in the Vanderbilt University School of Medicine and Director of the Vanderbilt Center for Molecular Neuroscience, is the recipient of the 2008 ASPET Julius Axelrod Award. The Award is given to recognize outstanding scientific contributions in research and mentoring. The Julius Axelrod Award in Pharmacology was established to honor the memory of the eminent American pharmacologist who shaped the fields of neuroscience, drug metabolism and biochemistry. From 1991 through 2006, the Julius Axelrod Award was presented by the Catecholomine Club.

Dr. Blakely pursued undergraduate studies at Emory University prior to earning his Ph.D. in Neuroscience at the Johns Hopkins University School of Medicine. He pursued postdoctoral studies within the HHMI Center for Molecular Neuroscience at Yale University. Dr. Blakely has made fundamental discoveries impacting pharmacology and neuroscience, introduced new techniques and approaches to the field of transporter biology, and has enhanced our appreciation for regulatory mechanisms that dictate synaptic function and drug action. Dr. Blakely is perhaps best known for his pioneering work identifying human genes encoding norepinephrine, serotonin and choline transporters. His more recent work has identified sites of cocaine and antidepressant recognition, has discovered multiple transporter regulatory pathways, and has elucidated contributions of transporter genetic variation to human disorders. Dr. Blakely's research has embraced multiple model systems from *C. elegans* to transgenic mice to human platelets in a quest to capture the power of different approaches for an understanding of transporter physiology, drug recognition and regulation. Dr. Blakely has mentored numerous young pharmacologists and neuroscientists throughout his career and has served as Director of both graduate and postdoctoral training programs at Vanderbilt. He is the current Director of the Vanderbilt Postdoctoral Training Program in Neurogenomics and the Vanderbilt/NIMH Silvio O. Conte Center for Neuroscience Research.



Katerina Akassoglou, PhD ***John J. Abel Award***

Katerina Akassoglou, Ph.D., Assistant Professor of Pharmacology at the University of California at San Diego, is the recipient of the 2008 John J. Abel Award, sponsored by Eli Lilly & Co. The Award is given to a single young investigator for original, outstanding research contributions in the field of pharmacology.

Dr. Akassoglou received her B.S. in biology and Ph.D. in neurobiology at the University of Athens, Greece and was trained in neuropathology at the University of Vienna, Austria before completing her postdoctoral work at the State University of New York at Stony Brook. Following research associate positions at Rockefeller University and New York University, she became assistant professor at UC San Diego in 2003.

Dr. Akassoglou's research has led to exceptional and creative contributions to neuroscience and to the molecular basis of diseases associated with tissue regeneration. The major impact of her work is in the fields of neurobiology, inflammation, and tissue repair, with a view towards designing novel therapeutic approaches that has earned her widespread national and international recognition among those in the research community. For her pioneering work on fibrin and fibrinogen and their role in various neuropathological states, she was recognized by the White House as a recipient of the 2006 Presidential Early Career Award for Scientists and Engineers (PECASE), the highest honor bestowed by the United States government on outstanding scientists and engineers beginning their independent careers. In addition to the clinical importance of her work for understanding multiple sclerosis and demyelination, she has developed peptide strategies that are extremely promising for therapeutics. Her interest in tissue regeneration led her to discover an unexpected role played by a neurotrophin receptor in cell differentiation that is critical for tissue repair. This work has been lauded as a major breakthrough. Dr. Akassoglou also discovered that this receptor, which is unregulated after tissue injury, blocks fibinolysis. Work in Dr. Akassoglou's laboratory is supported by the National Multiple Sclerosis Society, the Christopher and Dana Reeve Foundation, the Sam Schmidt Paralysis Foundation, the Dana Program in Brain and Immuno-imaging and the National Institute of Neurological Disorders and Stroke (NIH/NINDS).

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Jerry J. Buccafusco, PhD ***Pharmacia-ASPET Award***

Jerry J. Buccafusco, Ph.D., Director of the Alzheimer's Research Center, Professor of Pharmacology at the Medical College of Georgia, and Director of the Neuropharmacology Laboratory at the Charlie Norwood Veterans Administration Medical Center in Augusta, Georgia, is the recipient of the 2008 Pharmacia-ASPET Award for Experimental Therapeutics. The Pharmacia-ASPET Award for Experimental Therapeutics is given annually to recognize and stimulate outstanding research in pharmacology and experimental therapeutics—basic laboratory or clinical research that has had, or potentially will have, a major impact on the pharmacological treatment of disease. This award is funded by an endowment from Pharmacia (now Pfizer) and by ASPET.

Dr. Buccafusco was trained classically as a chemist, receiving his M.S. from Canisius College and his Ph.D. from the University of Medicine and Dentistry of New Jersey. Following a postdoctoral position at Roche Institute of Molecular Biology, he joined the Department of Pharmacology & Toxicology at the Medical College of Georgia.

Dr. Buccafusco's collaborative academic and industrial partners have discovered novel effective nicotinic acetylcholine receptor agonists which improve learning and memory, characterized the effectiveness of organophosphates and methylphenidate on cognition and memory, characterized the role of central cholinergic systems in opiate withdrawal, and discovered new roles for advanced glycation end products and its receptor RAGE in Alzheimer's Disease. This research has grown from laboratory into substantive translational research and development programs within the pharmaceutical industry. His research on the central nervous system has been translated into major pharmaceutical industry programs targeted specifically at the areas of hypertension and coronary circulation, borderline schizophrenia and memory preservation.



Curtis Klaassen, PhD ***Bernard B. Brodie Award***

Dr. Curtis Klaassen, Professor and Chair, Department of Pharmacology, Toxicology and Therapeutics at the University of Kansas Medical School, is the recipient of the 2008 Bernard B. Brodie Award in Drug Metabolism, based on his tremendous impact on the field of drug metabolism. The Brodie Award recognizes Dr. Klaassen's outstanding contributions to our understanding of human drug metabolism and to future research in the field.

Dr. Klaassen received his Ph.D. in pharmacology from the University of Iowa and immediately became an instructor of pharmacology and toxicology at the University of Kansas Medical Center, where he has remained throughout most of his research career.

Dr. Klaassen's selection for the Brodie Award recognizes his seminal contributions to our understanding of the interrelation of drug transport and drug metabolism in the disposition of drugs and other xenobiotics. His pioneering efforts underlie widespread and continuing efforts to characterize drug transporters at the molecular level and to characterize the coordinate regulation of genes encoding drug metabolizing enzymes and drug transporters. Dr. Klaassen is also widely recognized for his fundamental contributions to understanding the disposition of toxic heavy metals. He is a highly productive scientist and one of the most highly cited authors in the fields of pharmacology and toxicology. With over 400 peer reviewed research articles and over 80 review articles and book chapters, his scientific impact has been felt worldwide in the area of xenobiotic metabolism.

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Craig C. Malbon ***ASPET Goodman and Gilman Award in Drug Receptor Pharmacology***

Dr. Craig C. Malbon, Ph.D., the Leading Professor of Pharmacology and Director-Diabetes & Metabolic Diseases Research Center at the State University of New York at Stony Brook, is the recipient of the 2008 ASPET Goodman and Gillman Award. The biennial Award, funded by GlaxoSmithKline, was established to recognize and stimulate outstanding research in pharmacology of biological receptors. Such research might provide a better understanding of the mechanisms of biological processes and potentially provide the basis for the discovery of drugs

useful in the treatment of diseases.

Dr. Malbon received his Ph.D. from Case Western Reserve University where he was one of the first to characterize biochemically a peptide hormone receptor operating via G proteins, the renal parathyroid hormone receptor. His postdoctoral training at Brown University focused on molecular regulation of catecholamine action. He joined the faculty at Stony Brook in 1978, serving in various administrative capacities including Associate Dean of Biomedical Research at the School of Medicine, founding university Vice-President for Research and *CEO* of the Research Foundation, and Vice-Dean for Scientific Affairs at the Medical Center. Dr. Malbon is well known for his work in cell signaling. Recently, he has exploited receptor pharmacology to deduce key aspects of one of the most important pathways in signaling, the Wnt signaling pathway – in which secreted glycoprotein Wnt ligands and their Frizzleds cellular receptors are essential in the signaling of early development as well as later in signaling that controls important aspects of stem cell proliferation, such as that involved in adipogenesis.

Charles Robert Schuster, PhD ***P.B. Dews Lifetime Achievement Award in Behavioral Pharmacology***



Dr. Charles Robert Schuster, Professor of Psychiatry and Behavioral Neurosciences at Wayne State University School of Medicine, is the winner of the 2008 P.B. Dews Lifetime Achievement Award in Behavioral Pharmacology. The award is given every other year and honors the fundamental contributions of P.B. Dews to behavioral pharmacology.

Dr. Schuster received his Ph.D. from the University of Maryland where he became assistant professor before moving to the University of Michigan and later to the University of Chicago where he was director of the Drug Abuse Research Center. He was appointed Director of the National Institute on Drug Abuse from 1986-1992. In 1995 he moved to Wayne State as acting chair in the Department of Psychiatry and was director of Substance Abuse Research Division in the Department of Psychiatry.

Early in his career at Maryland he was a pacesetter in the field of morphine self-administration on rhesus monkeys that encouraged many to take up this new technique to examine drug dependence from a behavioral pharmacology point of view. At Michigan, he continued his work on opioids. While at the University of Chicago, he continued his basic behavioral pharmacology research and worked in the clinical pharmacology of addiction, establishing strong research and teaching at both graduate and postdoctorate levels, including a significant amount of training of physicians. As NIDA director he began the institute's efforts toward developing pharmacotherapy for drug abuse. At Wayne State, he started a Substance Abuse Clinic that features both strong patient pharmacotherapy programs for individuals with opioid abuse problems and epidemiological, pharmacological, and behavioral research on various topics. He has been an exemplary mentor to developing researchers in the field of drug dependence and has mentored some of the leading behavioral pharmacologists in the field.

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ASPET-Astellas Awards in Translational Pharmacology

The ASPET-Astellas Awards in Translational Pharmacology are intended to recognize pharmacological research accomplishments that seek to extend fundamental research closer to applications directed towards improving human health. The awards will be given to 1) recognize those individuals whose research has the potential to lead to the introduction of novel pharmacologic approaches or technologies that may offer significant advances in clinical medicine in the future and 2) to facilitate that translational process. The awards are made possible by a grant to ASPET from the Astellas Foundation, and there are three recipients.



Randy Dean Blakely, PhD
ASPET-Astellas Award in Translational Pharmacology

Randy Blakely, Ph.D., Professor of Pharmacology and Director of the Vanderbilt University School of Medicine Brain Institute, is a recipient of the 2008 ASPET-Astellas Award in Translational Pharmacology.

Dr. Blakely pursued undergraduate studies at Emory University prior to earning his Ph.D. in Neuroscience at the Johns Hopkins University School of Medicine. He pursued postdoctoral studies in the HHMI Center for Molecular Neuroscience at Yale University. Dr. Blakely has made fundamental discoveries impacting pharmacology and neuroscience, introduced new techniques and approaches to the field of transporter biology, and has enhanced our appreciation for regulatory mechanisms that dictate synaptic function and drug action. Dr. Blakely is perhaps best known for his pioneering work identifying genes encoding human norepinephrine serotonin and choline transporters. His more recent work has identified sites of cocaine and antidepressant recognition, has discovered multiple transporter regulatory pathways, and has elucidated contributions of transporter genetic variation to human disorders. Dr. Blakely's research has embraced multiple model systems from *C. elegans* to transgenic mice to human platelets in a quest to capture the power of different approaches for an understanding of transporter physiology, drug recognition and regulation. Dr. Blakely has mentored numerous young pharmacologists and neuroscientists throughout his career and has served as Director of both graduate and postdoctoral training programs at Vanderbilt. He is the current Director of the Vanderbilt/NIMH Postdoctoral Training Program in Neurogenomics and the Vanderbilt/NIMH Silvio O. Conte Center for Neuroscience Research.



Anthony John Kanai, PhD
ASPET-Astellas Award in Translational Pharmacology

Anthony John Kanai, Ph.D., Assistant Professor of Pharmacology at the University of Pittsburgh School of Medicine, is a recipient of the 2008 ASPET-Astellas Award in Translational Pharmacology.

Dr. Kanai received his Bachelor and Masters of Science from Duquesne University and his Ph.D. from the University of Pittsburgh. Following postdoctoral work at Nagoya City University in Japan and Duke University, he joined the faculty at the University of Pittsburgh School of Medicine.

Dr. Kanai's research is directed towards understanding the mechanism by which the barrier formed by the cells that line the bladder can become compromised. These novel pharmacological studies are most translational and offer a therapeutic potential for the treatment and prevention of radiation cystitis and the more effective treatment of pelvic malignancies.



John S. Lazo, PhD
ASPET-Astellas Award in Translational Pharmacology

John S. Lazo, Ph.D., Allegheny Foundation Professor of Pharmacology at the University of Pittsburgh School of Medicine, is a recipient of the 2008 ASPET-Astellas Award in Translational Pharmacology.

Professor Lazo earned his undergraduate degree in chemistry from Johns Hopkins University, followed by graduate training in pharmacology at the University of Michigan where he received his Ph.D. He did his postdoctoral work at Yale and joined the faculty. Professor Lazo is now Director of the University of Pittsburgh Drug Discovery Institute, has made significant contributions to our understanding of mechanisms of action of anticancer agents and has provided important insights into biochemical processes of normal and malignant cells. He is an internationally renowned investigator in the molecular pharmacology of cancer cells. His laboratory is currently applying high throughput platforms he has established in the Drug Discovery Institute to seek drugs that could be combined with conventional and new therapies for glioblastoma multiforme, a lethal brain cancer.