DR. ALLAN D. BASS (1910-2005)

Allan D. Bass was Professor and Chairman of the Department of Pharmacology at Vanderbilt University School of Medicine from 1953 until 1973. He served as Associate Dean for Biomedical Sciences from 1973 until his retirement in 1975.

Dr. Bass was nationally recognized as an outstanding administrator, scientist, and educator. He participated actively in many national societies, including The American College of Physicians, American Society for Pharmacology and Experimental Therapeutics (President, 1967 to 1969) and the American Medical Association Council on Drugs (1962 to 1972).

Dr. Bass’s own scientific research spanned more than four decades and included more than 66 articles and abstracts. Early on, he concentrated on developing new anthelmintics and on skin sterilizing agents. Later, he investigated the mechanisms of sulfonamide action and cellular mechanisms involved in endocrine pharmacology. Additional work focused on adrenal corticosteroids, hormones, and chemical transmitters.

Dr. Bass was responsible for the development of Vanderbilt’s Department of Pharmacology from a relatively small entity to a program that has achieved national recognition. As an educator, Dr. Bass always made every effort to assist each student to reach his or her academic potential and to meet professional requirements. Predoctoral and postdoctoral students who trained in pharmacology during Dr. Bass’ tenure as chairman now reside throughout the nation and several foreign countries and many have held leadership positions in academia, government and the pharmaceutical industry.

The Allan D. Bass Lectureship, established in 1977, celebrates scientific inquiry and communication. The program is made possible through the generosity of the Bass family, as well as colleagues in the scientific community, present and former students and faculty members at Vanderbilt University and the Vanderbilt Department of Pharmacology. Continuing support by alumni and friends is essential to the success and vitality of our training and research programs. If you would like to support this program, or others like it in the Department of Pharmacology, you can find on-line giving access on our web site, www.vanderbilt.edu/pharmacology.

PREVIOUS ALLAN D. BASS LECTURERS INCLUDE:

1977 Avram Goldstein
1979 James R. Gillette
1981 James A. Miller
1981 Elizabeth C. Miller
1983 Norman Weiner
1985 Elliot S. Vesell
1987 Richard W. Tsien
1989 John R. Blinks

1993 Roger A. Nicoll
1995 David E. Clapham
1998 Phillip Needleman
2003 Susan S. Taylor
2005 Morgan Sheng
2007 Brian K. Kobilka
2009 Xiaodong Wang
2012 Thomas C. Südhof, M.D.
Thomas Südhof is interested in how synapses are formed and function during
development and in the adult. His work focuses on the role of synaptic cell-
adhesion molecules in shaping synapse properties, on pre- and postsynaptic
mechanisms of membrane traffic, and on impairments in synapse formation
and function in neuropsychiatric disorders. To address these questions,
Dr. Südhof’s laboratory employs approaches ranging from biophysical and
biochemical studies to the physiological and behavioral analyses of
mutant mice and the in vitro derivation of human neurons.

Dr. Südhof, a native of Germany, obtained his M.D. degree from the University of
Göttingen in 1982, and performed the work for his doctoral thesis at the Max-Planck-
Institut für biophysikalische Chemie in Göttingen under the direction of Prof. Victor
P. Whittaker. From 1983-1986, Dr. Südhof trained as a postdoctoral fellow with Drs.
Brown and Goldstein at the Department of Molecular Genetics at UT Southwestern,
and elucidated the structure, expression and regulation of the LDL receptor gene.
Subsequently, Dr. Südhof served on the faculty of UT Southwestern in Dallas until
2008, where he was the founding chair of the Department of Neuroscience. Since
2008, Dr. Südhof is the Avram Goldstein Professor in the School of Medicine at
Stanford University. Dr. Südhof has also been an Investigator of the Howard Hughes
Medical Institute since 1986. Dr. Südhof’s research interests focus on the molecular
mechanisms underlying synapse function, in particular on how synapses form, how
they transmit signals from one neuron to the next, and how they become abnormal
during diseases such as Alzheimer’s disease and autism spectrum disorders. His
studies have identified key molecules in synapses, such as synaptotagmins, RIMs,
Munc13s, Munc18s, complexins, neurexins, and neuroligins, and others. Moreover,
his laboratory has demonstrated that synaptotagmins function as the calcium sensors
for neurotransmitter release at synapses in complexin-dependent manner, that RIMs
function as central organizers of active zones that recruit the Munc13 priming factors
and calcium-channels to active zones, and that neurexins, neuroligins, and LRR RTMs
function as the central trans-synaptic cell adhesion molecules at synapses that organize
the assembly of synapses into signaling machines. Dr. Südhof is a member of the
National Academy of Sciences, the Institute of Medicine, and the American Academy
of Arts and Sciences, and has won several awards for his work, most recently the Kavli
Award in Neuroscience.