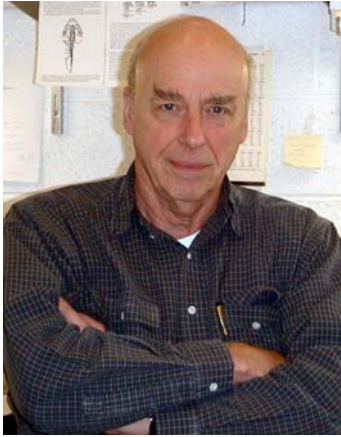


Donald D. Brown Receives 2009 *Developmental Biology-SDB* Lifetime Achievement Award



Donald D. Brown has received the 2009 *Developmental Biology-SDB* Lifetime Achievement Award for his remarkable contributions to the field of developmental biology, both in research and the education of other scientists.

“Don’s efforts ... are not restricted to his work alone, but to the people he supported and helped become the scientists they are today,” wrote Alejandro Sanchez Alvarado, Ph.D., “I consider myself a recipient of his efforts.”

In 1956, Dr. Brown graduated from the University of Chicago Medical School with an M.D. and an M.S. in biochemistry, and passed the State Medical Board Examination of Ohio that same year. He wrote his M.S. thesis on the mechanism of viral invasion. Don Brown started his career as an intern at Charity Hospital in New Orleans. In 1957, he joined the National Institutes of Health as a research associate and surgeon. For the next two years, he studied amino-acid metabolism.

In 1959, Dr. Brown traveled to Paris, France, where he served as special fellow in the National Cancer Institute, Service de Biochimie Cellulaire at the Institut Pasteur. He spent the following year examining the mechanisms underlying enzyme regulation in bacteria. Returning stateside in 1969, Dr. Brown joined the Department of Embryology at the Carnegie Institution of Washington (now renamed Carnegie Institution for Science) in Baltimore, Maryland, where he still conducts research on gene expression during embryonic development. In 1976, Dr. Brown became director of the department, which he led for nearly 20 years. He is also part-time professor of biology at Johns Hopkins University, where he has served on the faculty since 1969.

In 1960, Dr. Brown began to focus on what is called “genetics by gene isolation,” whereby scientists are able to study the unique function of individual genes by separating them and then recreating their activity. For the next 30 years, Dr. Brown conducted these studies, many of which were done before the advent of recombinant DNA, and his findings have helped elucidate the causal gene expression underlying embryonic development.

In subsequent research, Dr. Brown delved deeper into developmental studies when he began to investigate the hormonal underpinnings of frog and toad metamorphosis, which is a process that is controlled by the activity of thyroid hormone (TH). By studying this intricate developmental progression in the frog *Xenopus laevis*, he has identified TH-controlled genes and their pathways. His findings have helped elucidate the hormonal control of embryonic organ development, and how hormones not only help regulate cell growth, but also cell apoptosis, or programmed cell death.

Among Dr. Brown’s other former preeminent mentees are Drs. Igor Dawid (2008 recipient of *Developmental Biology-SDB* Lifetime Achievement Award), Allan Spradling (2003 recipient of SDB’s Edwin G. Conklin Medal) and 2006 Nobel Laureate Andrew Fire, added Dr. Sanchez, who is an HHMI (Howard Hughes Medical Institute) investigator and professor of neurobiology and anatomy at the University of Utah School of Medicine.

Dr. Brown has served as SDB's Treasurer (1967-69) and President (1974-75), as well as president of the Life Sciences Research Foundation since 1981. He organized the first-ever Developmental Biology Gordon Conference in 1970. He was elected a fellow of the American Academy of Arts and Sciences in 1971 and a member of the National Academy of Sciences in 1973. His other affiliations include American Society of Biological Chemists, American Society for Cell Biology, American Association for the Advancement of Science and American Philosophical Society.

Throughout his research and teaching career, Dr. Brown has served on a number of top editorial boards, including those of *Developmental Biology*, *Journal of Cell Biology*, *Journal of Biological Chemistry*, *Journal of Experimental Zoology*, *Cell*, *Current Opinions in Cell Biology*, and *Genetic Engineering*. He was also on the advisory boards for the National Science Foundation's Division of Biology, and the National Institute of Child Health and Human Development, from 1972 to 1975, and from 1989 to 1991, respectively.

The list of visiting committees that have benefited from Dr. Brown's guidance include the biology departments of the Massachusetts Institute of Technology (M.I.T.), Brookhaven National Laboratory, and Harvard University, where he served concurrently on the visiting committee for the Department of Biochemistry and Molecular Biology. He also served on visiting committees at the Roche Institute of Molecular Biology, CNRS – Gif sur Yvette, Princeton University's Department of Biochemistry, Fox Chase Institute for Cancer Research, Fred Hutchinson Institute for Cancer Research, Massachusetts General Hospital's Department of Molecular Biology, M.I.T.'s Whitehead Institute, HHMI's Medical Advisory Board, Hong Kong University of Science and Technology, and Wellcome/CRC Institute, Cambridge, U.K.

The *Developmental Biology*-SDB Lifetime Achievement Award is the latest in a long inventory of honors received by Dr. Brown, including the State of Maryland Young Scientist of the Year; U.S. Steel Foundation Award in Molecular Biology; Roche Institute for Molecular Biology's V.D. Mattia Award; Honorary Doctorates of Science from the University of Chicago, the University of Maryland-Baltimore County, and the University of Cincinnati; Distinguished Service Award from University of Chicago's Medical Alumni Association; New York Academy of Science's Boris Pregel Award for Biology; Ross G. Harrison – ISDB Prize in Developmental Biology; University of Texas Cancer Center's Ernst W. Bertner Memorial Award; Brandeis University's Rosenstiel Award in Basic Biomedical Science; Columbia University's Louisa Gross Horwitz Award; Feodor Lynen Medal at the 1987 Miami Winter Symposium; and the American Society for Cell Biology's E.B. Wilson Award.

As Dr. Sanchez Alvarado wrote in his nomination letter: “[The Lifetime Achievement Award] is, I believe, a fitting token of recognition for someone who played a key role in shaping the field into a rigorous, far-reaching scientific endeavor.”

Each year, the SDB gives the *Developmental Biology*-SDB Lifetime Achievement Award to an outstanding senior developmental biologist. Criteria for this award include a consistent record of exceptional contributions to the field and an ongoing commitment to training young scientists.

More information about Don Brown's research can be obtained at:

<http://www.ciwemb.edu/labs/brown/index.php>.

By Anne Blank