Leland Johnson Receives Viktor Hamburger Outstanding Educator Prize



Leland G. Johnson, who for more than four decades has worked to train the next generation of developmental biology educators, is the 2008 recipient of the Viktor Hamburger Outstanding Educator Prize.

Dr. Johnson completed his undergraduate work in biology at Augustana College in Sioux Falls, SD. After leaving to obtain his doctorate in biological sciences from Northwestern University in Chicago, and

to complete postdoctoral training in the Department of Zoology and Comparative Physiology at Queen Mary College, University of London, he returned to his *alma mater*. He spent a successful career spanning more than 40 years teaching developmental biology and conducting research at Augustana College until he retired in 2005.

"Not only has he taught thousands of undergraduates, but also dozens of academics who are themselves teachers of developmental biology in colleges and universities," writes Yolanda Cruz, biology professor at Oberlin College and member of the SDB Professional Development and Education Committee. "This guy knows how to teach."

Throughout his career, Dr. Johnson consistently emphasized the importance of combining teaching and research in the undergraduate curriculum. He credits the mentors and role models whom he met throughout his education, as well as at the Marine Biological Laboratory at Woods Hole where he spent three summers, with influencing him to pursue his passion for teaching.

While at Augustana College, Dr. Johnson served for a decade as principal investigator of an NSF-funded Undergraduate Research Participation program. He also actively participated in other projects funded by the NSF and other agencies and, through this work, helped scores of young students at Augustana College launch careers in teaching, research, and health care.

Although Dr. Johnson retired from Augustana College three years ago, he continues to teach at the University of Maine's Darling Marine Center, where he co-leads the <u>Developmental Biology Teaching Laboratory Workshop</u>. Under his leadership, the summer workshop has helped more than 100 young professors throughout the world start their careers in teaching. Now in its 16th year, the workshop continues to thrive under the direction of Dr. Johnson, who led it alone for its first eight years and now works in collaboration with Eric Cole, biology professor at St. Olaf College in Northfield, MN.

"He has been a mentor and a guiding light," Dr. Cole writes of Dr. Johnson.

In addition to his direct work with students, Dr. Johnson co-wrote with E. Peter Volpe a developmental biology lab manual called "Patterns And Experiments In Developmental Biology." Written in 1973, the manual is still used today and for years was considered the preeminent guide. As Dr. Cole writes: "We refer to it as 'the source." Since that time, Dr. Johnson has published two revisions of the manual, which was the impetus for starting the Developmental Biology Teaching Workshop. Another significant contribution to science education is Dr. Johnson's general biology textbook that he first wrote in the 1980s, and since has been released in a new edition.

Adhering to his philosophy that teaching and research are best done together, Dr. Johnson ran an active lab throughout his teaching career. His early studies were of the hormonal influences on skin and feather development in chicks, as well as on other aspects of embryo morphogenesis and metabolism.

More recently, Dr. Johnson investigated larval ecology, which refers to the interplay of the environment with early developmental processes and now often is called "Eco-Devo." In a research area that is still evolving, Dr. Johnson focused on echinoid and asteroid echinoderms to examine the effects of thyroid hormone on invertebrate development.

In addition to his studies in larval ecology, Dr. Johnson conducted studies on temperature tolerance during early development. Through these studies, Dr. Johnson collaborated with marine labs in this country and abroad, most notably the Australian Institute of Marine Science in Townsville. For more information about Dr. Johnson's research, please go to: http://www.augie.edu/dept/biology/web/faculty/johnson/ljohnson.html

The SDB Board of Directors established the <u>Viktor Hamburger Outstanding Educator Prize</u> in 2002, in honor of Dr. <u>Viktor Hamburger</u>, to recognize teachers who have contributed exceptionally to the field of developmental biology education.

By Anne Blank