IN MEMORIAM

Judith Ann Lengyel
Professor of Molecular, Cell & Developmental Biology
Los Angeles
1945– 2004

UCLA lost one of its most enthusiastic supporters when Judith Ann Lengyel, professor of molecular, cell and developmental biology, died on September 25, 2004 at the age of 59. Judith was born in Rochester, New York, but moved to Los Angeles at an early age. Her lifelong association with UCLA began when she received her B.A. (1967, Phi Beta Kappa) and M.A. degrees here. She received her Ph.D. at Berkeley in 1972, followed by postdoctoral work at MIT. There she began the molecular work on gene expression in Drosophila that she would continue for the rest of her career.

In 1976, Lengyel became an assistant professor in the Department of Biology and the Molecular Biology Institute at UCLA. With her first student, Kathryn Anderson, she pioneered the measurement of the rates of synthesis and turnover of messenger RNAs in fruitfly (Drosophila) embryos: research that opened the door to modern molecular approaches to investigating development of organisms.

At UCLA, Judith initiated studies to identify genes that control the formation of the body plan in the Drosophila embryo. At this time Dr. Lengyel began studying the tailless gene. From her work we know it encodes a protein that is produced at both ends of the embryo to control differentiation of the head and tail. Tailless has now taken its place in a cascade of gene interactions that subdivide and pattern the head and tail, and Judith's discoveries are universally included in developmental biology textbooks. This outstanding work came during what was undoubtedly a time of revolution in developmental biology and was a major contribution to understanding how genes control the formation of the body plan. Judith's experiments provided some of the strongest arguments leading to the now widely accepted recognition that the mechanisms that pattern the fruitfly embryo are conserved in all multicellular animals, including humans. The work was also one of the earliest examples to show that repression of gene activity is as important for proper development as is activation of gene activity. The implications for cancer are now very clear, in that many cancers arise due to a failure to repress gene activity. As a consequence of these findings, Dr. Lengyel started investigating how tailless controls the formation of the hindgut. Dr. Lengeyl stated that this became "an excellent position to use as a model system to understand the genetic control of development of a simple epithelial organ, the hindgut." As much as Judith relished her time in the laboratory peering through the microscope to look at embryos, she was fully immersed in the camaraderie of science at UCLA – her daily life was punctuated by interactions with her students, her colleagues at UCLA and scientists around the world with whom she collaborated. The importance of her work is internationally recognized, and Judith received many awards. She was elected a Fellow of the American Association for the Advancement of Science (1992), Organizer of the West Coast Regional Developmental Biology Meeting (2001), elected California representative to the National Fly Board (2001-2004), a Member of the NIH Fellowships Study Section (2001-2004), and elected Treasurer of the Society for Developmental Biology (2002-2004).

Dr. Lengyel is well known for her strong commitments to undergraduate teaching, mentoring and as a role model for young scientists at UCLA. She was a firm believer in faculty diversity. At the time Judith began her career, very few women were pursuing careers as scientists, and the lack of senior mentors posed additional

challenges. For this reason, Judith devoted much of her energy to serving as a mentor for women and minorities in the sciences.

Judith also inspired undergraduates to pursue careers in science. She developed and regularly taught the first upper division developmental biology course at UCLA, bringing in most of the other faculty who now teach this course, and receiving love and admiration from her students. In recognition of her devotion to excellence in teaching, she received a MCDB Distinguished Faculty Teaching Award in 1996. She also played a major role in shaping the Department of Molecular, Cell, and Developmental Biology. Judith served as vice chair for education in the department, and could be said to represent the "conscience" of the Department in always looking out for the interest of students.

Judith was a leader in many arenas to promote graduate teaching in developmental biology, including service as chair of the Access Developmental Biology Affinity group (1994-1998) and member of the Access Steering Committee (1996-1998). She mentored 17 graduate students who received their Ph.D. in her lab and 12 more postdoctoral fellows. As vice chair for education in the Department of Molecular Cell and Developmental Biology she could be said to represent the "conscience" of the Department in always looking out for the interests of students.

Judith remained involved with the university and the department throughout her illness. Although very ill with a brain tumor, she continued to meet with and teach undergraduate seminars, and ensured that the research she was pursuing would continue after her death. Judith was a remarkable friend and colleague. She was devoted to science, but had many outside interests, including hiking, biking, and rollerblading. As Judith wished, she died peacefully at home, with her husband, Fred Eiserling, by her side. We shall miss her.

Karen Lyons
John Merriam