

Shirley M. Tilghman

World-renowned developmental biologist, educator, and university president, Shirley M. Tilghman always has made time to be an advocate for young students and a mentor to other women who are just starting their careers in science.

In 2003, SDB recognized Dr. Tilghman's remarkable achievements in the field of developmental biology and awarded her the 2003 Elsevier-Society for Developmental Biology Lifetime Achievement Award. Her other awards include the 2002 L'Oreal-UNESCO Award for Women in Science, which Dr. Tilghman won along with four other scientists, and the 2007 Genetics Society of America Medal, which is awarded to scientists who have made outstanding contributions to their field.

As a postdoctoral fellow at the National Institutes of Health, Shirley M. Tilghman helped clone the first mammalian gene. After this early success, Dr. Tilghman went on to become an investigator at Philadelphia's Institute for Cancer Research and then an adjunct associate professor of human genetics and biochemistry and biophysics at the University of Pennsylvania. In 1986, she joined Princeton University as Howard A Prior Professor of the Life Sciences, and, fifteen years later was elected Princeton's 19th president. In 1988, she also became an investigator with Howard Hughes Medical Institute.

For years, Dr. Tilghman focused her research primarily on the role of genomic imprinting in controlling early developmental gene expression and embryonic growth regulation. Her work has identified the mechanisms that cause parental-specific expression patterns of a select group of over 30 imprinted genes and how these genes function to regulate embryonic and fetal growth patterns. She was a founding member of the National Institute of Health's National Advisory Council of the Human Genome Project, as well as a member of the committee charged with designing and planning U.S. work on the project.

In addition to her significant research record, throughout her career Dr. Tilghman has continually served as a mentor for women in science, as well as a proponent of science education for students from diverse academic disciplines. At Princeton, from 1993 to 2000, she was chair of a group called the Council on Science and Technology that promotes science and technology education in disciplines outside the sciences. As a result of these and other efforts, the university honored her with the President's Award for Distinguished Teaching in 1996. Dr. Tilghman also started a program, called the Princeton Postdoctoral Teaching Fellowship, which provides an opportunity for postdoctoral students from all aspects of science and engineering to increase their skill in research and teaching.

Dr. Tilghman attended Queen's University in Kingston, Ontario, in her native Canada. In 1968, she graduated from the university with a bachelor's of science with honors in chemistry. She then worked for two years in Sierra Leone, West Africa, where she taught

in a secondary school. Later, Dr. Tilghman attended Philadelphia's Temple University, from which she graduated with a doctorate in biochemistry.

Her professional memberships include the American Philosophical Society, the National Academy of Sciences, the Institute of Medicine, and the Royal Society of London. She is a trustee of a number of groups, including the Jackson Laboratory, the Carnegie Endowment for International Peace, and the King Abdullah University of Science and Technology. In addition, Dr. Tilghman is chair of the Association of American Universities and is a member of the Google, Inc. Board of Directors.

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