Yale’s Joan Steitz reaps two honors for outstanding contributions to science

Yale UniversityYale University

Yale’s Joan Steitz has been awarded two major prizes recognizing the outstanding achievements of women scientists.

Steitz, Sterling Professor of Molecular Biophysics and Biochemistry and a Howard Hughes Medical Institute investigator, was awarded the Pearl Meister Greengard Prize of Rockefeller University, which recognizes outstanding achievements of women scientists. Steitz is being honored for her discoveries of how messenger RNAs are fashioned in order to make proteins from the instructions in DNA, a process crucial to all life.

Also, Vanderbilt University School of Medicine will present Steitz with the 2012

Vanderbilt Prize in Biomedical Science for her work with RNA and her commitment to advancing the careers of women scientists.

“Professor Steitz is both a tireless advocate and a visible and successful role model for women in science,” said Steven Girvin, deputy provost for science and technology at Yale. “Her work was critical to our understanding of the complex and crucial role RNA molecules play in biology.”

As a student at Harvard University in the 1960s, Steitz almost decided not to pursue a career in science because of a lack of opportunities. However, with encouragement of established scientists such as James Watson, winner of the Nobel Prize for discovery of the structure of DNA, Steitz began to study how RNA operates in bacteria.

Since coming to Yale in 1970, Steitz has been an international leader in describing the molecular events involved in creation of messenger RNA (mRNA). Messenger RNA transcribes information coded on DNA and delivers it to ribosome, which translates the information needed to produce proteins. Steitz’s lab discovered tiny particles in cells called small nuclear ribonucleoproteins (snRNPs) and described their roles in splicing, an essential step in creating mRNA.

Her insights have been applied to numerous research areas, including cancer, and autoimmune and infectious diseases.

The Pearl Meister Greengard Prize was created by Nobel laureate and Rockefeller professor Paul Greengard, who donated his entire monetary share of the 2000 Nobel Prize in Physiology or Medicine to Rockefeller University to establish the annual prize in honor of the accomplishments of women scientists. The prize is named in memory of Greengard’s mother, who died giving birth to him. The award includes a $100,000 honorarium.

The Vanderbilt Prize honors nationally and internationally known women scientists who have “a stellar record of research accomplishments” and who have contributed significantly to the mentorship of other women in science. Prizewinners receive a $25,000 honorarium, visit Vanderbilt to meet with faculty and deliver a Discovery Lecture, and serve as mentors to women who are pursuing graduate studies in the biomedical sciences at the School of Medicine.

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