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FOR IMMEDIATE RELEASE

Janet Rowley Receives Gruber Genetics Prize During the Annual Conference of the American Society of Human Genetics

Preeminent researcher to lecture on “Cancer: Genes Gone Wrong”

October 22, 2009, New York, NY - The woman who led the way to perhaps the most dramatic discovery about cancer in the last 50 years will be honored for her breakthrough and continuing research with the 2009 Gruber Foundation International Genetics Prize on October 23.

Janet Davison Rowley, MD will accept the award – a gold medal and \$500,000 – in a ceremony during the 59th Annual Meeting of the American Society of Human Genetics (ASHG) being held in Honolulu. She will also deliver a lecture entitled “Cancer: Genes Gone Wrong.”

A double-revolutionary in the world of genetics research, Prof. Rowley helped change the prevailing view of women in the scientific arena, as completely as she changed the way we look at cancer.

Her work established that cancer is a genetic disease. Through painstaking studies, she showed that mutations in certain genes lead to specific forms of leukemia and lymphoma, and that a cancer's genes determine which form of the disease it takes. Among her discoveries was the landmark finding that the abnormally short “Philadelphia” chromosome that had earlier been identified in hematopoietic cells of people with chronic myelogenous leukemia, was not a chromosome deletion, as was widely believed, but a translocation, or exchange, of segments between two chromosomes.

When she began her investigations into the chromosomal abnormalities of leukemia at the University of Chicago, where she still teaches, Rowley set out on a lonely path. Few scientists at the time believed that chromosomal aberrations caused tumors. The accepted view was that abnormal chromosomes were manifestations of the generalized chaos that exists within leukemia and lymphoma cells.

“I became a kind of missionary, saying that chromosome abnormalities were important and hematologists should know about them,” Rowley said. “I got sort of amused tolerance at the beginning.”

She was used to uphill battles. Having entered college on an early admissions scholarship at the age of 15 and completed her first two degrees in short order, she was forced to wait a year to get into medical school because there was a quota for women students; the school allowed only three in each class of 65. Her subsequent success and her proclivity to mentor students have made her an outstanding role model to young women scientists.

Fittingly, the 2010 Rosalind Franklin Young Investigator Award fellows will also be recognized at the ASHG conference. Jue D. Wang, Ph.D., Baylor College of Medicine, and Iris Hovatta, Ph.D., University of Helsinki, will each receive \$75,000 over the next three years. The fellowship was established to encourage women in the field of genetics; it is funded by The Peter and Patricia Gruber Foundation and administered by the ASHG and the Genetics Society of America. A joint, 10-member committee selects the two recipients. Rowley serves on that panel.

She remains extremely active in her field, heading one of the most respected genetics labs and always looking for the next breakthrough. “We’re still working on the leukemias,” she said. “There’s a lot of evidence that translocations and other chromosome abnormalities aren’t sufficient to make a cell malignant. We’re looking for the other mechanisms involved.”

Additional Information

The official citation reads:

The Peter and Patricia Gruber Foundation proudly presents the 2009 Genetics Prize to Janet Davison Rowley, M.D., a founder of the field of cancer cytogenetics and a renowned leader in molecular oncology.

Janet Rowley revolutionized research in the field of cancer biology and the diagnosis and treatment of cancer through her discoveries of specific chromosomal translocations in the leukemias and lymphomas. Dr. Rowley provided compelling evidence that particular tumors are associated with characteristic cytogenetic alterations.

By redefining our fundamental understanding of cancer through cytogenetics, she helped drive the translation of basic genetic discoveries to clinical medicine. In addition, during her illustrious career Dr. Rowley has provided critical leadership nationally and internationally to the biomedical research community.

Laureates of the Gruber Genetics Prize:

- **2008: Allan C. Spradling**
- **2007: Maynard Olson**
- **2006: Elizabeth H. Blackburn**
- **2005: Robert Hugh Waterston**
- **2004: Mary-Claire King**
- **2003: David Botstein**
- **2002: H. Robert Horvitz**
- **2001: Rudolf Jaenisch**

The Genetics Prize of The Peter and Patricia Gruber Foundation was established in 2001 and is awarded annually. The Genetics Selection Advisory Board reviews nominations and selects recipients. Current members are **Elizabeth H. Blackburn**, University of California, San Francisco; **David Botstein**, Lewis-

Sigler Institute; **H. Robert Horvitz**, Massachusetts Institute of Technology; **Mary-Claire King**, University of Washington; **Maynard Olson**, Genome Center, University of Washington; **Allan C. Spradling**, Carnegie Institution, Howard Hughes Medical Institute; and **Robert H. Waterston**, University of Washington.

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The Gruber International Prize Program honors contemporary individuals in the fields of Cosmology, Genetics, Neuroscience, Justice and Women's Rights, whose groundbreaking work provides new models that inspire and enable fundamental shifts in knowledge and culture. The Selection Advisory Boards choose individuals whose contributions in their respective fields advance our knowledge, potentially have a profound impact on our lives, and, in the case of the Justice and Women's Rights Prizes, demonstrate courage and commitment in the face of significant obstacles.

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The Peter and Patricia Gruber Foundation honors and encourages educational excellence, social justice and scientific achievements that better the human condition. For more information about Foundation guidelines and priorities, please visit www.gruberprizes.org

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