



United States
of America

Congressional Record

PROCEEDINGS AND DEBATES OF THE *107th* CONGRESS, FIRST SESSION

Vol. 147

WASHINGTON, TUESDAY, OCTOBER 16, 2001

No. 139

Senate

LEE HARTWELL, PHD, 2001, NOBEL PRIZE WINNER IN PHYSIOLOGY AND MEDICINE

Ms. CANTWELL. Mr. President, I rise today in honor of Dr. Lee Hartwell who received this year's Nobel Prize in Physiology and Medicine.

Dr. Hartwell began his work over 30 years ago with little more equipment or sophisticated research methods than a few dishes of yeast cells and a microscope and now works at one of the most prestigious cancer research centers in the country. Dr. Hartwell is President of the Fred Hutchinson Cancer Research Center in Seattle, and also a Professor of Genetics and Medicine at the University of Washington.

I believe that no one deserves this honor more than Dr. Hartwell, who is gracious and humble in his knowledge even as it has fundamentally changed the way we understand biology.

Dr. Hartwell was selected to receive the Nobel Prize because of his contributions to understanding how cells divide. Using yeast as a model organism, he was among the first scientists in the world to translate basic genetic research into the study of how cells function, and to determine which genes are involved in cell division.

Cells are the basis for all animal and plant life, and our understanding of how they multiply and develop is key to our understanding of larger organisms, like people. Errors or mutations in genes involved in the process of cell division can lead to cancer. Dr. Hartwell's work on these genes is fundamental in developing approaches that predict, prevent, or treat many kinds of cancers.

In his research, Dr. Hartwell has discovered more than 100 genes involved in cell-cycle control, including the gene that controls the first step in the cell division process. He also documented the existence of cell-cycle "checkpoints," which ensure steps in the process of cell growth and division have been completed properly before the process continues.

Dr. Hartwell's work was the first to show that cell division is genetically controlled, and he generated a collection of cell-division cycle mutants from which many of the key genes in this process have been isolated. Dr. Hartwell's latest work focuses on the possible role for checkpoint defects and genetic instability in cancer progression and he is looking into how to exploit these defects to develop new cancer treatments.

Dr. Hartwell graduated from Glendale High School in California before deciding to attend a junior college. He later transferred from junior college to the California Institute of Technology in Pasadena, CA. In 1961, he earned a Bachelor of Science at Caltech, and in 1964 earned a Ph.D. from the Massachusetts Institute of Technology. He did postdoctoral work at the Salk Institute for Biological Studies. He joined the University of Washington faculty in 1968 and has been a professor of genetics there since 1973. In 1996 he joined the faculty of Seattle's Fred Hutchinson Cancer Research Center and in 1997 became its president and director.

Dr. Hartwell is the recipient of many national and international scientific awards for his work in cell-cycle biology, including the Leopold Griffuel Prize, the Massry Prize, the American Cancer Society's Medal of Honor Basic Research Award, the Albert Lasker Basic Medical Research Prize, the General Motors Sloan Award and the Gairdner Foundation International Award for Achievements in Science. Dr. Hartwell is also a member of the National Academy of Sciences.

Dr. Hartwell typifies the ingenuity and creativity found throughout Washington State. I speak for us all when I commend him on winning the Nobel Prize in Physiology and Medicine. Dr. Hartwell's work is truly revolutionary, and although it is done without pomp and circumstance, his work will have a lasting impact on us all.