

Harald zur Hausen:

Scientist, Science Organizer, Science Politician

On March 11, 2003, the Deutsches Krebsforschungszentrum (German Cancer Research Center) will say goodbye to Professor Dr. med. Dr. h.c. mult. Harald zur Hausen, who has served as Chairman and Scientific Member of the Management Board for many years. Since virologist zur Hausen joined the Center in 1983, he has substantially shaped the scientific and structural course of the Center. Under his direction the Center has evolved into one of the world's leading cancer research institutes. His research in the area of virus-associated cancer development has paved the way for new approaches in the prevention and treatment of cancer.

Born in 1936 in Gelsenkirchen, Germany, Harald zur Hausen studied medicine in Bonn, Hamburg and Düsseldorf. He then worked as a postdoc at the University of Düsseldorf for three years, followed by a three-year stay in the U.S.A. at the University of Pennsylvania in Philadelphia. The next stop in his career was Würzburg. In 1972, zur Hausen accepted the chair of Virology at the University of Erlangen-Nuremberg and subsequently, in 1977, the chair of Virology at the University of Freiburg. In 1983, Professor zur Hausen was appointed Chairman and Scientific Member of the Management Board of the Deutsches Krebsforschungszentrum.

From the start, his scientific interest has been focused on the role of viruses in the development of human tumors. Thus, in Würzburg and Philadelphia he investigated, among other things, the connection between an infection with the Epstein-Barr virus and the development of Burkitt's lymphoma and nasopharyngeal carcinoma – the first two types of cancer ever to be associated with viruses.

From the 1970s onwards zur Hausen has focused entirely on human papillomaviruses (HPV), which are known to cause skin warts. As early as 1976, he published the hypothesis that wart viruses play a role in the development of cervical cancer. This suspicion soon turned into experimentally proven scientific certainty: In the early 1980s, zur Hausen and his co-workers were able to isolate two previously unknown virus types, HPV 16 and HPV 18, from tumor tissue. Today, these are considered the two most important high-risk virus types in the development of cervical cancer. Subsequently, zur Hausen and his team were able to elucidate some of the mechanisms by which the virus induces malignant transformation in infected cells. The discovery of what causes the third most frequent cancer in women has opened up entirely new prospects for its prevention and treatment: Scientists all over the world are working to develop concepts of vaccination against papillomaviruses. U.S. scientists have recently published the first positive results of a clinical trial of a prototype vaccine against high-risk HPV. This underlines the eminence of Harald zur Hausen as a researcher, doctor, and pioneer of a revolutionary approach in cancer medicine.

Harald zur Hausen has received numerous awards for his body of research, including the Robert Koch Award, the Charles S. Mott Prize of the General Motors Cancer Research Foundation, the Paul Ehrlich and Ludwig Darmstaedter Award, the Ernst Jung Prize for Medicine, and the Charles Rudolphe Brupbacher Award. Furthermore, he was awarded honorary doctorates by the universities of Chicago (U.S.A.), Umeå (Sweden), Prague (Czech Republic), Salford (England), and Helsinki (Finland).

His membership and honorary membership in numerous academies bear witness to his scientific commitment and high standing in the science community. He is a member of the American Academy of Sciences and was recently elected to the Presidium of the German

Academy of Natural Scientists Leopoldina. Zur Hausen is author and co-author of currently over 250 scientific publications.

In his function as Scientific Member of the Management Board, zur Hausen broke up the Center's rigid structure of independent institutes in favor of an organization in divisions that are assigned to Research Programs with a limited working life. He also shifted the scientific focus of the Center from research on the mouse model towards human cells.

Zur Hausen has ensured transparency in research by introducing a system of scientific self-control and international assessment at the Deutsches Krebsforschungszentrum. Internal evaluations of the scientific divisions foster communication and scientific exchange. In addition, each Research Program is assessed by external experts every five years. The results are reflected in a performance-oriented distribution of resources.

Under the leadership of Harald zur Hausen the Deutsches Krebsforschungszentrum, which does not have clinical wards of its own, institutionalized its collaboration with individual university hospitals: The establishment of Clinical Cooperation Units – five of which are currently operating – has ensured that basic research and clinical medicine have interlocked better and research results are transferred into practice as swiftly as possible. Professor zur Hausen has initiated countless innovative measures to improve research funding and structure, such as the introduction of the AIDS grant program, and, thus, has played a major part in shaping the landscape of biomedical research in Germany. It was his vision and dedication that have enabled the Deutsches Krebsforschungszentrum to evolve, over the past 20 years, into a world-leading research institute and to develop this position even further.

A press information folder on the retirement celebration for Harald zur Hausen can be obtained from the Press Office.

The task of the Deutsches Krebsforschungszentrum in Heidelberg (German Cancer Research Center, DKFZ) is to systematically investigate the mechanisms of cancer development and to identify cancer risk factors. The results of this basic research are expected to lead to new approaches in the prevention, diagnosis and treatment of cancer. The Center is financed to 90 percent by the Federal Ministry of Education and Research and to 10 percent by the State of Baden-Wuerttemberg. It is a member of the Helmholtz Association of National Research Centers (Helmholtz-Gemeinschaft Deutscher Forschungszentren e.V.).

This press release is available at www.dkfz.de/pressemitteilungen

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