

## Introduction for Harald zur Hausen

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Ladies and Gentlemen:

Tonight I have the pleasure to introduce the first speaker for the Frederick Stohlman Jr. Memorial Lectures, Harald zur Hausen.

Let me begin with some biographical data. Harald zur Hausen attended the medical schools of Bonn, Hamburg, and Düsseldorf and received his M.D. in 1960. This was followed by 2 years of internship and 4 years of postdoctoral research at the Institute of Microbiology of the University of Düsseldorf, where zur Hausen worked with Professor Kikuth. In 1966 Harald zur Hausen went to the United States to the Children's Hospital of Philadelphia, joining the laboratory of Werner and Gertrude Henle. He was appointed Assistant Professor of Virology at the University of Pennsylvania in 1968.

I think I am not taking excessive liberties in stating that the training with Werner and Gertrude Henle was the most decisive in Harald zur Hausen's research career. The period in the Henles' laboratory formed him. It was there that Harald zur Hausen acquired the basic tools and the broad intellectual outlook for his research. Harald zur Hausen has carried on the tradition of the Henles as great innovators in medical virology; through his work he has augmented and enriched it, becoming himself an eminent representative of this tradition.

Harald zur Hausen returned to Germany in 1969, first going to the institute of another ex-Philadelphian, Eberhard Wecker, in Würzburg. In 1972, Harald zur Hausen ac-

cepted the offer to head an independent institute of medical virology as Professor and Chairman at the University of Erlangen. From 1977 to 1983 he was Professor and Chairman of the Institute of Virology at the University of Freiburg, and in 1983 he accepted the challenging position of Scientific Director of the German Cancer Center at Heidelberg.

Zur Hausen has received numerous awards and prizes: the Richtzenhain Prize of the University of Heidelberg, the Warner Prize of the University of Hamburg, the Schaudinn Medal of the German Dermatological Society, and an Honorary Doctor of Science degree from the University of Chicago. He has been visiting professor at the university of Belo Horizonte in Brazil and the universities of Brisbane and Perth in Australia. Just 2 weeks ago, Harald zur Hausen received one of the most prestigious awards in cancer research, the Charles S. Mott Prize, presented by the General Motors Cancer Research Foundation for the most outstanding recent contribution to our knowledge about the causes and hence to the ultimate prevention of cancer.

Harald zur Hausen is a pioneer of medical virology. His work concentrated early on persistent infections with DNA viruses. This focus of interest quite naturally led him to a study of herpesviruses. He was the first to demonstrate the DNA of Epstein-Barr virus in Burkitt's lymphoma cells that do not produce the complete infectious virus. He showed that Epstein-Barr virus DNA was present in Burkitt tumor tissue and in the tissue of another tumor, nasopharyngeal carcinoma, in multiple genome equivalents per

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cell. His observations indicate an important role of the Epstein-Barr virus in the genesis of Burkitt's lymphoma and of nasopharyngeal carcinoma.

Harald zur Hausen's recent work deals with human papillomaviruses. There are numerous, distinct types of these viruses. None of the them can be grown in tissue culture, so their study relies heavily on molecular biology techniques. Harald zur Hausen has demonstrated that papillomavirus sequences are present in most human genital tumors, that there is a correlation between the specific type of papillomavirus and the benign or malignant nature of the tumor, and that papillomavirus sequences are expressed in tumor tissue. All this together strongly indicates that papillomaviruses play an important role in the initiation and possibly the maintenance of these human tumors.

In his work on herpesviruses Harald zur Hausen was at the forefront of a large group of scientists who had been drawn to this field by the initial discovery that linked Epstein-Barr virus to Burkitt's lymphoma. The study of papillomaviruses has gained far fewer adherents, and here Harald zur Hausen has always been and remains the prime and dominant advocate for the oncogenic importance of these viruses.

If I mentioned only herpesviruses and papillomaviruses, I would ignore one of Harald zur Hausen's greatest accomplishments: the current healthy state of the German Cancer Center in Heidelberg. When Harald zur Hausen took over as the scientific director a mere 3 years ago, that institution had fallen on hard times. It was torn by internal strife and dissent, and much of its research program was widely perceived by the international scientific community as being in need of improvement. Within a remarkably short time Harald zur Hausen has restored peace, lifted scientific standards, attracted first-rate research talent, and created a modern scientific institution that has become worthy of the national effort devoted to its maintenance. This almost miraculous turnaround did not come about by a revolution or by confrontations but through Harald zur Hausen's determined, firm and persuasive leadership, his vision, his high ideals, and his diplomatic skill. The Federal Republic owes Harald zur Hausen its Cancer Center; he has revived it.

Ladies and gentlemen,

I introduce to you Harald zur Hausen, distinguished scholar, accomplished leader, and seasoned diplomat.