

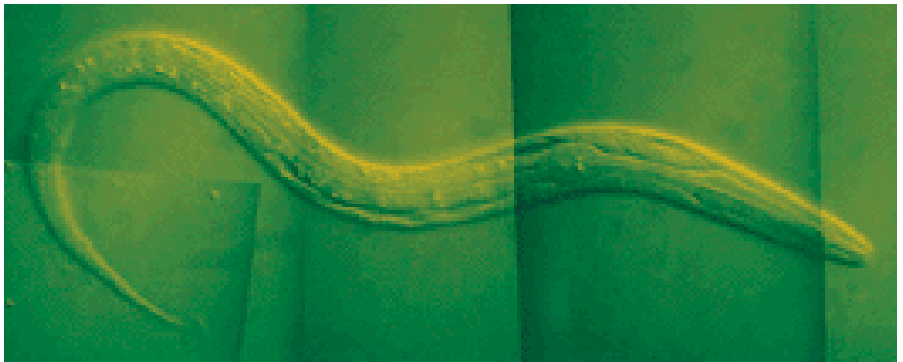
1994 Hans Sigrist Prize



H. Robert Horvitz

Through genetic analysis of the nematode *Caenorhabditis elegans*, Dr. H. Robert Horvitz discovered and characterized many genes that play highly specific roles during animal development and in animal behavior. He defined genes that control specific aspects of cell lineage and cell fate, including the generation of cell diversity during development; the timing of particular developmental events; inter- and intracellular signaling; and pro-

grammed cell death. Dr. Horvitz's molecular analyses of these genes revealed most of them to be strikingly similar to genes found in other organisms, including humans, and in many cases similar to genes that cause human disease. One specific major discovery made by Dr. Horvitz during his studies of nematode cell lineage is the finding that cell death is an active biological process involving a specific set of genes. He discovered that these genes



function within cells that die to bring about their deaths and defined a genetic pathway that constitutes the genetic «program» for programmed cell death. These findings established a pathway for programmed cell death that appears to be conserved from nematode to human and that is important both in animal biology and in a variety of human diseases, including certain cancers and neurodegenerative disorders.

The receipt of the Hans Sigrist Prize was a milestone in my career, as it was the first international prize or honor I received and was followed by awards from Canada, Germany, Sweden, France, England and Italy, including the Nobel Prize for Physiol-

ogy or Medicine, in 2002. The Hans Sigrist Prize was an honor deeply appreciated by me and no doubt was an endorsement to other prize committees. The funds from the Hans Sigrist Prize have been very useful, in large part because their use is unrestricted, unlike the funds from every other funding source I have had. For this reason, I have been able to use these funds for special purposes, including the purchase of major computer equipment and travel to scientific meetings. I am grateful to the Hans Sigrist Prize Committee for both the honor and the monetary support that have helped in the development of my career and in my scientific research.

Contact address:

Prof. H. Robert Horvitz, Howard Hughes Medical Institute, 77 Massachusetts Avenue, Cambridge, Massachusetts 02139, USA, E-mail: horvitz@mit.edu