

ACCEPTANCE SPEECH  
of  
**JAMES F. GUSELLA**  
Co-Winner of the 1997 King Faisal  
International Prize for Medicine  
(*Degenerative Diseases of The Nervous System,*)

Your Royal Highness Prince Sultan ibn Abdul Aziz  
Your Royal Highnesses,  
Your Excellencies,  
Distinguished Guests,

I am very honored to be here today and to have been chosen to receive such a prestigious award as the King Faisal International Prize in Medicine. A scientist first chooses research as a vocation usually because of an inherent curiosity to understand how the world works. The world obviously presents an extraordinarily wide range of possible mysteries to solve. I feel fortunate that early in my career I encountered the enigma of Huntington's disease, a peculiar movement disorder that affects all races. Although I had not originally intended to work in the area of human disease, this devastating neurodegenerative condition, which leaves its victims trapped helplessly inside a body that is beyond their control, provided me with the opportunity to address a fascinating scientific problem while at the same time benefiting others.

The first step in this undertaking was the mapping of the Huntington's disease gene to chromosome 4 in 1983. The novel genetic strategy that we applied to Huntington's disease has subsequently been emulated in dozens of other inherited disorders that afflict millions of people in all parts of the world. After 10 years of careful and sometimes frustrating searching, we managed to identify the precise defect that causes Huntington's disease in 1993. The isolation of the causative gene in this, as in any genetic disorder, provides the foundation for understanding the mechanism of the disease. It is my hope that the next step in Huntington's disease and in these other genetic disorders will be the development of effective treatments to alleviate the suffering of those whose health is undermined by their own inheritance. I see immense promise in the continued application of molecular genetic techniques to improve the health and well-being of all the world's populations. I am proud that I have played a part in an era of great progress in neurogenetic disease and am extremely gratified that the King Faisal Foundation has recognized my efforts and judged them worthy of this great honor.

I would like to thank my many coworkers at the Massachusetts General Hospital and my collaborators around the world who have been a part of this work over the past 15 years and to express my sincere gratitude the King Faisal Foundation for honoring me as recipient of this Award. Most of all, however, I would like to thank the many families who, rather than succumb to the weighty burden inflicted by a disorder as dreadful as Huntington's disease, came forward gladly to share their genetic material for this research. Without the cooperation and participation of Huntington's disease families from all around the world, the scientific advances that we have achieved would not have been possible.

Thank you.