

ACCEPTANCE SPEECH
of
COLIN L. MASTERS
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 deeply honored by the joint award of the King Faisal International Prize in Medicine. The Prize this year acknowledges the importance of the neurodegenerative disease conditions which affect virtually all human beings to a greater or lesser extent, the result of subtle interactions between genes and environment. You may ask, How is it possible that such a disease group has received such little attention in the past? - it certainly doesn't rank highly on the lists of the 'big killers' - cancer, heart disease, infectious disease. Yet we have ignored for a long time the simple observation that as a person ages (and by this I mean from the second to third decades onwards), their nervous systems gradually become less efficient. Think of any elderly person with cognitive changes, inability to move as quickly as a youth, and the progressive impairment of the visual and auditory senses. Are these aging-related changes an inevitable part of the human condition? We are only now beginning to scientifically address this question. We think that the answer is 'no'!

We are now certain that the neurodegenerative changes begin long before most of us realize that there is anything going wrong. This is particularly true of Alzheimer's disease, where the biochemical changes that we have studied may begin more than thirty years before any impairment in thinking or cognition occurs. It is highly likely that the genetic and environmental factors which head to Alzheimer's disease will be fully elucidated in the near future. We are very optimistic that new therapeutic and preventative strategies will become realities. Using Alzheimer's disease as an example of neurodegeneration, we hope to show how the human brain can be protected against the injurious effects of the environment, and how any genetic predisposition can be successfully managed.

The advances in knowledge that we have seen in the last twenty years have been very much the result of many research laboratories working in a competitive and collaborative spirit. In my own situation, our studies could not have been successful without the collaboration with Konrad Beyreuther and his coworkers in Germany. I've had essential support from my family and colleagues in Australia, and it is to them that much of this recognition gained from the King Faisal award should be given.

Finally, may I say how important this prize is, in my estimation, in terms of promoting the scientific contributions and future development of the Middle East. It is through the scientific endeavours of all disciplines of human activity that we can work together for the advancement of the human condition.