Acceptance Speech of

PROFESSOR CYNTHIA KENYON

Winner of the 2000

Shukran King Faisal International Prize for Medicine

Sunday 14 May 2000 (10 Safar 1421H.)

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

I am deeply honored that I have been awarded the King Faisal International Prize for Medicine. Receiving this highly esteemed prize has been one of the most exciting experiences of my life. The King Faisal prize not only brings honor to me, but to many others as well. It brings honor to my parents, who are here with me, and to my professors, who taught me how to be a scientist. It brings honor to my lab members, who risked much safer careers to study aging. It brings honor to my institution, the University of California, in San Francisco, which has created an environment that fosters excellence and also friendliness. It brings honor to the tiny, humble worm *C. elegans*, which we study in the lab. Finally, and most important, it brings honor to my colleagues in the aging field, who have made many important discoveries that greatly influenced our own research.

The mystery of aging is one of the oldest mysteries of all. It may seem as though aging is something that just happens to us. We wear out, like old cars. But, curiously, if you look around you, you see that different animals age at very different rates. A mouse lives for just two years, but a bat can live for fifty. Why are their lifespans so different? Well, we know that these animals differ from one another because of their genes. So that suggests that genes control aging. In our lab, we have looked for these genes in the tiny worm *C. elegans*, and we have found them. When we changed these genes, the expected lifespan of the worms doubled and they were much younger than normal. These genes have led us to an elaborate system of hormones that regulate aging. This research is exciting because we know that these little worms often use the same genes we do to live their lives, and we have genes that are similar to the genes that control aging in these worms. Therefore we hope that these worms can teach us how we age and, ultimately, how we can improve the quality of our old age. It is this goal that inspires me to work harder in the lab.

Once again, I thank the King Faisal Foundation with all my heart for this award, and for the wonderful humanitarian and philanthropic contributions they are making to the study of medicine throughout the world.