

ACCEPTANCE SPEECH
by
BENGT ROBERTSON
Co-Winner of the 1996 King Faisal
International Prize for Medicine
(Management of the Premature Infant)

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

Receiving the 1996 King Faisal International Prize in Medicine has been an overwhelming experience, from the evening I got the message via the news media until this very moment here today. I wish to thank the Board of The King Faisal International Prize for awarding my work so generously and also for giving me the honour of sharing the prize with such an eminent scientist as Professor Tetsuro Fujiwara.

The 1996 Prize for Medicine concerns 'management of the premature infant'. Very significant progress has been made in this field over the last decades. In the middle of this century, the survival rate was very low among babies born before the 32nd week of gestation. Today, with the application of modern medical technology, most of these babies survive without long-term complications.

My own contribution to this striking development relates to one specific problem of prematurity: the respiratory distress syndrome. This disease is caused by a deficiency of pulmonary surfactant, a system of lipids and specific proteins which coat the inside of the normal lung, lowering surface tension and reducing the work of breathing. The key observation made by our group in Stockholm about 25 years ago was that lung expansion of premature newborn experimental animals could be

significantly improved by instillation of natural lung surfactant via the airways. This opened a new avenue of research that eventually led to the successful use of surfactant for the treatment of babies with respiratory failure due to prematurity. Clinical trials, organized by our group and other investigators, demonstrated that this new therapeutic approach was indeed a life-saving intervention. To me, as an experimental pathologist, it was particularly rewarding to experience that the work performed in our laboratory had a direct impact on clinical practice and I am happy to know that most babies surviving thanks to this new treatment grow up as normal children.

I am deeply honoured by the assignment and wish to thank the Board of The King Faisal International Prize for calling attention to this important area of research. I am honoured also on behalf of my university, the Karolinska Institute, in Sweden, and I am happy to be the first Swedish scientist to receive the award. I want to emphasize that my own contribution to the field has been potentiated over the years by collaboration with a number of highly qualified investigators in Europe, Japan, and the United States, and by constant support from people in my laboratory and from my family who is represented here today. I humbly accept the 1996 King Faisal International Prize in the hope it will stimulate further research on the clinical management of some of the most vulnerable members of our society: premature newborn babies. These very fragile human beings need all the help we can provide.