# Richard J. Roberts, Ph.D.

Dr. Richard Roberts was born and educated in England. He received a B.Sc. in Chemistry in 1965 and a Ph.D. in Organic Chemistry in 1968, both from the University of Sheffield. His postdoctoral work was carried out with Dr. Jack Stromiger at Harvard where he studied tRNAs involved in bacterial cell wall synthesis. Between 1972 and 1992 he was a group leader at the Cold Spring Harbor Laboratory, eventually holding the position of Assistant Director for Research. Dr. Roberts served as Chairman of the Scientific Advisory Board of New England Biolabs from 1974 to 1992. In 1992, he moved to New England Biolabs, serving first as Research Director (1992-2005) and since 2005 as Chief Scientific Officer.

Dr. Roberts' research interests have covered a wide range of molecular biological areas. In the early 1970s he began a long-standing research program on bacterial restriction enzymes and modification methylases, discovering many new enzymes and characterizing their specificities. Dr. Roberts' work on restriction/modification enzymes and on viral genome sequencing in turn stimulated an interest in computational analyses of DNA and protein sequences, and his research group has made numerous contributions to this area. In 1977, Dr. Roberts' work on the structure of the adenovirus genome and its transcripts led to his discovery of split genes and RNA splicing. Over the past 15 years, Dr. Roberts and his collaborators have analyzed the crystal structures of restriction enzymes and modification methylases, making the remarkable observation that DNA methylation proceeds via flipping of the substrate base out of the core of the double helix. Dr. Roberts is a member of the Royal Society, and in 1993 he shared the Nobel Prize in Physiology or Medicine with Phil Sharp for the discovery of split genes and RNA splicing.