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SEMMELWEIS UNIVERSITY

FACULTY OF MEDICINE

Dean, Professor

Dr. Miklós Kellermayer, MD, PhD, DSc, MAE

Laudation of Professor Carlos J. Bustamante

Carlos Bustamante is professor and Raymond and Beverly Sackler Chair of Biophysics at the University of California, Berkeley. Professor Bustamante has contributed to a profound revolution in biology with his accomplishments in the evolution of single-molecule-manipulation methods and theories of polymer elasticity, protein and RNA folding, chemo-mechanical transduction and nanoscale non-equilibrium statistical mechanics. He was the first to mechanically manipulate single DNA, protein, RNA and numerous mechanoenzyme molecules including the ribosome. His achievements changed the course of biochemistry and biophysics by making it possible to carry out experiments that were unthinkable just two decades ago. He published more than 300 papers, nearly one third of which appeared in Nature, Science, Cell and PNAS. He has had more than 600 engagements as invited, plenary or prize speaker, including a lectureship at our 250-year anniversary Semmelweis Symposium. He has been awarded more than 30 honors and prizes which include the Alexander Hollaender Award in Biophysics, the Hans Neurath Prize from the Protein Society and the Kazuhiko Kinoshita Award in Single-Molecule Biophysics. He is a Howard Hughes Medical Institute Investigator and member of the National Academy of Sciences of the United States of America. The co-operation of Professor Bustamante with Semmelweis University has resulted in numerous original publications and the establishment of a Single-molecule Biophysics and Nanobiotechnology research group on our campus. These efforts helped to bring to life the von Békésy Biophysical Research Center of Semmelweis University. With reference to his outstanding accomplishments and long-standing collaboration with Semmelweis University, it is our great privilege to bestow the title of Doctor Honoris Causa upon Professor Carlos Bustamante.