

DENNIS LO



Professor Dennis Lo is a distinguished molecular biologist renowned for his groundbreaking discoveries in non-invasive prenatal testing. Since 8 January 2025, he has served as the Vice-Chancellor and President of The Chinese University of Hong Kong (CUHK), where he is also the Director of the Li Ka Shing Institute of Health Sciences, Associate Dean (Research), and Chairman of the Department of Chemical Pathology in the Faculty of Medicine.

ACADEMIC AND PROFESSIONAL CAREER

Professor Lo's pioneering research began in 1997 when he identified the presence of cell-free fetal DNA in maternal plasma, laying the foundation for non-invasive DNA-based prenatal testing. His team was the first to report cell-free fetal RNA and fetal epigenetic markers in maternal plasma and to demonstrate their potential for prenatal diagnosis. His work also led to a breakthrough in detecting fetal trisomy 21 (Down syndrome) using fetal nucleic acids in maternal blood.

With advancements in massively parallel sequencing and innovative bioinformatics strategies, Professor Lo's group successfully mapped the fetal genome from maternal blood, revolutionizing prenatal testing for multiple genetic diseases. The non-invasive prenatal test for Down syndrome developed by his team has been widely adopted in over 90 countries and used by millions of pregnant women worldwide, marking a significant milestone in global medicine.

Professor Lo earned his Bachelor of Arts degree from the University of Cambridge and his Doctor of Medicine and Doctor of Philosophy degrees from the University of Oxford. Before returning to Hong Kong in 1997, he was a University Lecturer in Clinical Biochemistry and Honorary Consultant Chemical Pathologist at the John Radcliffe Hospital, Oxford, as well as a Fellow at Green College, Oxford.

Through his relentless pursuit of scientific innovation, Professor Lo has transformed prenatal diagnostics, significantly improving maternal and fetal healthcare worldwide.

AWARDS AND HONORS

- 2000 Ten Outstanding Young Persons of Hong Kong
- 2001 Ten Outstanding Young Persons of the World
- 2005 State Natural Science Award from the State Council of China
- 2006 International Federation of Clinical Chemistry and Laboratory Medicine (IFCC) – Abbott Award for Outstanding Contribution to Molecular Diagnostics
- 2006 US National Academy of Clinical Biochemistry Distinguished Scientist Award, a Croucher Senior Medical Research Fellowship
- 2007 Sigi Zeiring Award from the American Association of Clinical Chemistry
- 2007 Award for Outstanding Contribution for a Publication in the International Journal Clinical Chemistry, American Association for Clinical Chemistry
- 2009 Fulbright Distinguished Scholar
- 2011 elected as a Fellow of the Royal Society
- 2013 Foreign Associate of the US National Academy of Sciences
- 2013 Fellow of The World Academy of Sciences
- 2014 King Faisal Prize in Medicine
- 2016 Future Science Prize, Life Science Prize
- 2020 Award for Excellence in Molecular Diagnostics, Association for Molecular Pathology
- 2021 Breakthrough Prize in Life Sciences
- 2021 Royal Medal
- 2022 Lasker-DeBakey Clinical Medical Research Award