Biography of Lihong V. Wang, Ph.D.



Lihong Wang earned his Ph.D. degree at Rice University, Houston, Texas under the tutelage of Robert Curl, Richard Smalley, and Frank Tittel. He is Bren Professor of Medical Engineering and Electrical Engineering at California Institute of Technology. His book entitled "Biomedical Optics: Principles and Imaging," one of the first textbooks in the field, won the 2010 Joseph W. Goodman Book Writing Award. He also edited the first book on photoacoustic tomography and coauthored a book on polarization. He has published 470 peer-reviewed articles in journals, including Nature (Cover story), Science, PNAS, and PRL, and has delivered 460 keynote, plenary, or invited talks. His Google Scholar h-index and citations have reached 113 and 52,000, respectively. His laboratory was the report functional photoacoustic tomography, first to 3D

photoacoustic microscopy (PAM), photoacoustic endoscopy, photoacoustic reporter gene imaging, the photoacoustic Doppler effect, the universal photoacoustic reconstruction algorithm, microwave-induced thermoacoustic tomography, ultrasound-modulated optical tomography, timereversed ultrasonically encoded (TRUE) optical focusing, nonlinear photoacoustic wavefront shaping (PAWS), compressed ultrafast photography (10 trillion frames/s, the fastest camera in the world), Mueller-matrix optical coherence tomography, and optical coherence computed tomography. In particular, PAM broke through the long-standing diffusion limit on the penetration of optical microscopy and reached super-depths for noninvasive biochemical, functional, and molecular imaging in living tissue at high resolution. He is a Fellow of the AIMBE, Electromagnetics Academy, IEEE, OSA, and SPIE. He is the Editor-in-Chief of the Journal of Biomedical Optics. He chairs the annual conference on Photons plus Ultrasound, and was a chartered member of an NIH Study Section. Wang serves as the founding chairs of the scientific advisory boards of two companies that have commercialized photoacoustics. He received the NIH's FIRST, NSF's CAREER, NIH Director's Pioneer, and NIH Director's Transformative Research awards. He also received the OSA C.E.K. Mees Medal, IEEE Technical Achievement Award, IEEE Biomedical Engineering Award, SPIE Britton Chance Biomedical Optics Award, and Senior Prize of the International Photoacoustic and Photothermal Association for "seminal contributions to photoacoustic tomography and Monte Carlo modeling of photon transport in biological tissues." An honorary doctorate was conferred on him by Lund University, Sweden.