

P. Thomas Vernier is Research Professor at the Frank Reidy Research Center for Bioelectronics at Old Dominion University in Norfolk, Virginia, USA. His research and industrial experience includes ultraviolet microscopy analysis of S-adenosylmethionine metabolism in a psychrophilic strain of the yeast *Rhodotorula glutinis*, molecular biology of the temperature-sensitive host restriction of bacterial viruses in *Pseudomonas aeruginosa*, low-level environmental gas monitoring, wide-band instrumentation data recording, physical and electrical characterization and modeling of semiconductor and microelectromechanical devices, and the integration of cellular and biomolecular sensors, carbon nanotubes, and quantum dots with commercial integrated electronic circuit fabrication processes. Vernier currently studies the effects of electric fields on biological systems, with applications in cancer therapeutics, combining experimental observations with molecular dynamics simulations. His focus is on understanding the biophysical mechanisms that govern electric field-driven, nondestructive perturbations of biological membranes.

Vernier received his Ph.D. in Electrical Engineering from the University of Southern California (USC) in 2004 and was for 10 years a member of the research faculty in the Department of Electrical Engineering at USC and Engineering Manager of the semiconductor fabrication service MOSIS. His professional associations include the American Chemical Society, American Society for Microbiology, Bioelectrochemical Society, Bioelectromagnetics Society, Biophysical Society, and Institute of Electrical and Electronics Engineers. He serves on the faculty of the annual international course on electroporation-based technologies and treatments at the University of Ljubljana and maintains active collaborations with investigators in Buenos Aires, Cambridge (Massachusetts), Cluj-Napoca, Copenhagen, Halifax, Karlsruhe, Limoges, Ljubljana, Los Angeles, Merced (California), Naples, Paris, Reno (Nevada), Rome, Santa Barbara (California), Toulouse, and Zagreb.



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