



**Bio:** Dr. Jose Moran-Mirabal is Professor and University Scholar in the Department of Chemistry and Chemical Biology at McMaster University, and the Founding Scientific Director of McMaster's Centre for Advanced Light Microscopy. Dr. Moran-Mirabal's research combines strengths in micro- and nanofabrication, 3D bioprinting, interfacial chemistry of biomaterials, and high-resolution fluorescence microscopy to design and study materials at the micrometer to nanometer scale. Dr. Moran-Mirabal's work has been recognized with the Province of Ontario's Early Researcher Award and the Tier 2 Canada Research Chair in Micro- and Nanostructured Materials. He is the Vice President of the Microscopy Society of Canada and editor in the journals of

Frontiers Bioengineering and Biotechnology and Industrial Biotechnology. Current research projects in his laboratory include the development of 3D printing biopinks to create biomimetic tissue models; the use of modular surface modification approaches for the functionalization of nanocellulose; and the development of simple and cost-effective bench-top approaches to fabricate micro- and nanostructured surfaces. He has trained >100 HQP, has authored 101 peer-reviewed publications, and has four granted patents.

Dr. Moran-Mirabal obtained a BSc in Engineering Physics and MSc in Biotechnology from ITESM, in Monterrey, Mexico. He then joined the group of Prof. Harold Craighead at Cornell University, where he performed research on the application of micro- and nanofabricated surfaces for the study of lipid membranes. He received his PhD in Applied Physics from Cornell University in 2007. He worked as Post-Doctoral Fellow (2007-2009) and Research Associate (2009-2011) in the Biofuels Research Laboratory at Cornell University under the supervision of Prof. Larry Walker. There, he applied quantitative fluorescence methods to the study of cellulase binding kinetics, binding reversibility, and catalysis. Dr. Moran-Mirabal joined the Department of Chemistry and Chemical Biology at McMaster University in July 2011.