

M. Cynthia Goh



M. Cynthia Goh is Professor at the Department of Chemistry, the Institute of Medical Science, the Munk School of Global Affairs, and Director of the Institute for Optical Sciences at the University of Toronto. She received her PhD from the University of California at Los Angeles, and carried out postdoctoral fellowships at Columbia University and the University of California, Berkeley, prior to taking a faculty position at the University of Toronto.

Professor Goh is a physical chemist with a diverse set of research interests, including fundamental studies of complex systems biomaterials, interfaces, probe microscopy, the development of new research instrumentation and nanotechnology. She is also known for her interest the translation of scientific discovery to technology and products, and the education of scientist-entrepreneurs. She invented the technique of diffraction-based sensing, a highly sensitive approach for the detection of biomolecules with applications in medical diagnostics and in drug discovery. Together with her students, she founded Axela Biosensors Inc (www.axela.com) to commercialize the technology; Axela's dotLab™ system, is a commercial instrument used by researchers and clinicians for a variety of applications in the bio and medical areas. Her scientific research on understanding of the self-assembly of biomolecules and polymers resulted in a platform technology for making nanoparticles; based on this science, she and her students founded Vive Nano, now Vive Crop Protection (www.vivecrop.com), with over 30 employees targeting agriculture applications. She is also co-founder of Dalenyi BioSurfaces (www.dalenyi.com), a company engaged in immunoassay tools, and Pueblo Science (www.puebloscience.org), a non-profit company engaged in science literacy for low resource settings.

Professor Goh's interest in the education of scientist-entrepreneurs led her to introduce a non-credit series in 2004, which led to what is now known as Entrepreneurship101 at MaRS, with over 1200 registered attendees annually. In 2012, as Director of the IOS, she introduced Techno2010, a one-month intensive training program for scientists intending to build a tech-based company. Techno 2010 and 2011 have each led to the creation of 10 tech start-ups, several of which now have sales. Techno2012 is nucleating the formation of 15 new companies.