J. Paul Robinson

Distinguished Professor of Cytomics, Professor of Biomedical Engineering, Purdue University



Dr. Robinson received his early education at the University of NSW, Sydney Australia where he received a B.Sc. (Hons), M.Sc. and Ph.D. degrees. He was a postdoctoral fellow in the University of Michigan Medical School then a junior faculty in the School of Pathology prior to moving to Purdue University where he was promoted from Associate Professor to Full Professor in 1993.

Dr. Robinson is currently the Distinguished Professor of Cytometry, and professor of Biomedical Engineering in the Weldon School of Biomedical Engineering. He also holds appointment in the Purdue Polytechnic Institute, School of Computer and Information Technology and IU School of Medicine. Dr. Robinson is a Fellow of the *American Institute for*

Medical and Biological Engineering and a Fellow of the *American Association for the Advancement of Science*. Dr. Robinson is a past president of the International Society for Advancement of Cytometry and is the *Editor- in-Chief* of *Current Protocols in Cytometry*

He is an accomplished researcher with over 200 peer-reviewed papers, over 400 conference presentations, 10 books, 15 CDs or DVDs and over 160 invited international keynote lectures and 18 issued patents. He formed the Purdue Cytometry Discussion list in 1989 (<u>http://cyto.purdue.edu/hmarchiv/index.htm</u>) and it continues today with 4500 participants. In 1994 he established the first cytometry website <u>www.cyto.purdue.edu</u>.

Dr. Robinson is the inventor of the key patent on spectral flow cytometry that has been commercialized and this technology has become one of the most significant technologies in the field of single cell biological detection using fluorescence. In this regard, together with his colleague Masanobu Yamamoto, they recently produced the most sensitive, highest speed single photon detector currently available. In addition, his team has been developing multiparameter electronics to allow simultaneous detection of up to 42 wavelengths in single photon mode. This technology has been initially focused on biological detection but has applications in the biodefense arena. He has also worked for some years on detection technologies in the area of food borne pathogens with over 30 peer reviewed publication in this area. More recently his group has been focused on developing new approaches to toxin and pathogen detection using laser induced breakdown spectroscopy (LIBS). By combining lanthanide conjugated antibodies as target molecules for toxins, it is possible to create a rapid detection assay that can be highly multiplexed.

Dr. Robinson is an accomplished mountaineer having summited several of the worlds most difficult mountains including *Everest*, (May 23, 2009); *Manaslu* (Oct 3, 2008); and *McKinley* (Jul 1, 2008). In 2006 he formed the *not-for-profit* foundation "*Cytometry for Life*" (www.cytometyforlife.org) as a mechanism to promote low-cost diagnostics around the world and this organization continues working today to expand education and training in Africa in conjunction with AIBBC (https://www.aibbc-society.org).