



BIOGRAPHY: Prof. David R. Goodlett has spent his career using mass spectrometry to solve biomedical problems via novel technology and software developments. His Ph.D. training with Prof. Richard B. van Breemen on protein adducts concluded in 1991 and his postdoctoral work with Dr. Richard D. Smith on Native MS and ESI fundamentals in 1993. He has been active in a variety of fields including medicine, oceanography, pharmacy, microbiology, proteomics (including clinical applications), lipidomics, and protein & glycolipid structure-function relationships publishing over 280 papers generating an H-index of 80.

His current research interests lie in developing a better understanding of the lipid A structure-activity relationship (SAR) with a goal to elucidate the molecular basis by which lipid A can act as agonist or antagonist on binding to the MD2/TLR4 receptor complex. Having a better understanding of the lipid A SAR will allow more rational design of novel lipid A mimetics that can act as a better vaccine adjuvant than currently used monophosphorylated lipid A and a better anti-septic therapeutic than previously developed, but failed, drug Eritoran. He is currently a Professor at the University of Victoria where he holds the Don and Eleanor Rix BC Leadership Chair in Biomedical & Environmental Proteomics and is Director of their Genome BC Proteome Centre. Prior to that he was Professor at the Universities of Washington (2004-2012) and Maryland-Baltimore (2013-2020) as well as first Director of Proteomics at the Institute for Systems Biology (2000-2003). From 2012-2016 he was a Finland Distinguished Professor studying pediatric type 1 diabetes during which time they prepared the following video interview noting work – life balance <https://www.youtube.com/watch?v=jfOOMNJivvY>. For the last dozen years he has been an Editor at Rapid Communications in Mass Spectrometry for Wiley-Blackwell publishing who have recently produced a Meet the Editors series of interviews found here <https://onlinelibrary.wiley.com/doi/abs/10.1002/rcm.8187> where he answers a series of questions related to how he came into science. He has founded two companies based on his patents: Deurion of Seattle, WA (<http://deurion.com>) who are developing mass spectrometry ion sources and Pataigin of Baltimore, MD (<https://pataigin.com>) who are focused on microbial diagnostics. Since 2007 he has been a co-organizer of the Mass Spectrometry in Biotechnology and Medicine summer school (www.msbm.org) held annually in Dubrovnik, Croatia. Recently, he was appointed Visiting Professor at the International Centre for Cancer Vaccine Science (ICCVS) at the University of Gdansk where he is helping his long-time colleague Prof Ted Hupp of Edinburgh University with efforts in neoantigen sequencing. His biological focus on understanding the lipid SAR is derived from a decades long collaboration with Prof Bob Ernst of University of Maryland-Baltimore. He is active on twitter as <https://twitter.com/goodlettlab1>.