Nicola J. Smith

Current Position: National Health and Medical Research Council of Australia and National Heart Foundation of Australia C. J. Martin Overseas Research Fellow in the Molecular Pharmacology Group at University of Glasgow

Education: Ph.D. in Pharmacology (2007) from University of Melbourne in Australia

Non-scientific Interests: Travel, especially in the context of the history of social justice; history and philosophy of science; science communication; media; sport

Although I had always planned to study pharmacology at university, I never expected to fall in love with the subject. Thus, my majors in neuropsychology and the history and philosophy of science became incidental as I pursued all things G protein-coupled receptor pharmacology. My new passion led me to complete an Honours year with Professors Arthur Christopoulos and Patrick Sexton, studying 5-HT2C receptor pharmacology at the University of Melbourne. Afterward, I undertook a Ph.D. program in cardiac angiotensin receptor pharmacology at the Baker Heart Research Institute, which was supervised by Professor Walter Thomas (who is now a good friend and mentor). Exposure to cardiovascular and diabetes research from bench to bedside led me to focus on G protein-coupled receptors in cardiovascular disease and type 2 diabetes—a quest that resulted in moving to the University of Glasgow to undertake a fellowship with Professor Graeme Milligan, a renowned G protein-coupled receptor expert.

In the highlighted paper, we have examined the effects of various ligands, receptor mutations, and human polymorphisms at the recently deorphanized Free Fatty Acid receptor 1 (FFA1). FFA1 is of particular interest to the pharmaceutical industry as it has been implicated in the development and maintenance of insulin dysregulation seen in type 2 diabetes. Given that most agonists of this receptor are able to exert effects on a number of cellular systems, and that one of the thiazolidinedione agonists, rosiglitazone, is currently licensed for use as an insulin sensitizer, we were eager to establish the mode of action of various ligand classes at FFA1.

Read Dr. Smith's article entitled: The Action and Mode of Binding of Thiazolidinedione Ligands at Free Fatty Acid Receptor 1 … http://www.jbc.org/cgi/content/full/284/26/17527