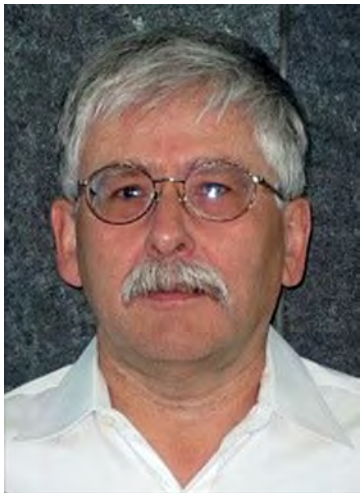

2019-2020 POCC Lecture Series

October 24, 2019, 7:30 PM

6:30 reception in the Nobel Hall

Dr. Nick Carruthers

Janssen Research & Development

Two Decades of Neuroscience Medicinal Chemistry at Janssen

Carolyn Hoff Lynch Lecture Hall, Chemistry Building, University of Pennsylvania

The Philadelphia Organic Chemist's Club

POCClub.org

Nick is currently Head of Strategic and Scientific Outreach at Janssen R&D LLC.

Nick joined Janssen in 1999, to lead medicinal chemistry for the Neuroscience team against a range CNS targets including histamine (H3 and H4), serotonin (5-HT7 and 5-HT2A) Neuropeptide Y, VR1, Orexin (1 and 2), NMDA, AMPA and P2X7 resulting in over twenty-five NMEs. To date ten compounds have advanced to clinical evaluations including the H3 antagonist JNJ-31001074 (Bavisant) and the orexin-2 antagonist JNJ-42847922 (Seltorexant).

Prior to Joining Janssen, Nick began his industrial career at Hoechst in the U.K. where he was jointly responsible for the discovery of the penem antibiotic HE-664. He was subsequently at Schering-Plough in the allergy and immunology area where his contributions led to several clinical candidates, primarily targeting asthma.

Nick obtained his B.Sc. (First Class) in chemistry and Ph.D. in synthetic organic chemistry from Heriot-Watt University, Edinburgh, Scotland which was followed by a NATO-Research Fellowship at the University of California, Berkeley. He has over one hundred and twenty published papers, in excess of one hundred patents and patent applications, including forty-three issued U.S. patents. Nick was elected a Fellow of the Royal Society of Chemistry in 1997.

Abstract: Advances in molecular biology beginning in the 1990s and culminating with the sequencing of the human genome has afforded researchers with a plethora of new targets for investigation. Thus, the process of target discovery, endogenous ligand identification and establishing high throughput screens has left the medicinal chemist with the challenge to transform, typically weak, non-selective and non-drug like molecules into novel therapeutic agents. This presentation will describe three projects, with their origins in an orphan GPCR program, and their progress into the clinic and development as therapeutics. The central role of medicinal chemistry, with an emphasis on establishing target engagement and determining efficacy in relevant translational models, will be highlighted.