

NICHOLAS A. MEANWELL, Ph.D., CSci, CChem, FRSC

EDUCATION

B.Sc. Special Honours Chemistry, 1976

The University of Sheffield, Sheffield, England

Ph.D. Degree, Organic Chemistry, 1979

The University of Sheffield, Sheffield, England (Dr. D. Neville Jones)

Post Doctoral Studies, 1979-1982

Wayne State University, Detroit, Michigan (Professor Carl R. Johnson)

INDUSTRIAL EXPERIENCE

Bristol-Myers Squibb Research and Development: 1982-present

CURRENT POSITION: Vice President, Head Discovery Chemistry Platforms

Department of Small Molecule Drug Discovery, Bristol Myers Squibb Research and Early Development, Princeton, NJ.



Have led drug discovery programs in the cardiovascular, neurosciences and virology therapeutic areas, work that has resulted in the advancement of 33 clinical candidates for the prevention of thrombosis, the treatment of stroke and therapy for viral infections, including human immunodeficiency virus-1 (HIV-1), hepatitis C virus (HCV) and respiratory syncytial virus (RSV).

In the cardiovascular area, significant discoveries included a series of imidazo[4,5-*b*]quinolin-2-ones that inhibited cAMP phosphodiesterase 3 with BMY-20844 advanced into clinical trials to assess its potential as an antithrombotic agent; a series of non-prostanoid prostacyclin mimetics that were optimized into potent blood platelet aggregation inhibitors, an effort that included mapping of this non-classical PGI₂ mimetic pharmacophore that subtends selexipag and ralinepag, as exemplified by BMY-42393 and BMY-45778. In the neurosciences arena, flindokalner (MaxiPost[®]) emerged from studies of maxi-K potassium channel openers and this compound was advanced into Phase 3 clinical trials for the treatment of stroke.

Significant discoveries to emerge from the antiviral group include RSV fusion inhibitors, characterized as the first small molecules to interfere with the association of the 6 helical peptide bundle that is a critical step in the virus entry process, and a series of HIV-1 attachment inhibitors that are the first small molecules described to function by interfering with the interaction between the virus gp120 protein and the host cell CD4 receptor. From this work, fostemsavir, a phosphonooxymethyl prodrug of temsavir, was approved by the FDA on July 2nd, 2020, and is marketed as Rukobia[™] for highly treatment-experienced patients. In addition, an inhibitor of HIV-1 maturation, BMS-955176, completed Phase 2b clinical trials while GSK-3640254 is currently in Phase 2 clinical trials with ViiV Healthcare.

Significant compounds in the HCV arena include daclatasvir (Daklinza[™]), a pioneering molecule that established NS5A inhibition as a clinically-relevant target, and the HCV NS3 protease inhibitor asunaprevir (Sunvepra[™]), which incorporates the cyclopropyl acylsulfonamide moiety that has been widely adopted. These drugs, which were marketed as a combination therapy for the treatment of GT-1b infection, established for the first time that an HCV infection could be cured by direct-acting antiviral agents in the absence of immune stimulation. Daklinza[™] and Sunvepra[™] were marketed in Japan in 2014 and Daklinza[™] was approved for marketing by the EMA in 2014 and by the FDA in 2015. In addition, beclabuvir, a thumb site inhibitor of HCV NS5B polymerase, was approved in Japan in December, 2016 for the treatment of HCV genotype 1 infection as part of a fixed dose combination with daclatasvir and asunaprevir, marketed as Xymency[™].

PUBLICATIONS and PATENTS: Author/co-author of more than 260 publications, review articles, book chapters and editorials and 200 meeting abstracts. Named as inventor/co-inventor of 140 issued U.S. Patents. Have presented more than 160 invited lectures at National and International meetings, Universities and Schools on Medicinal Chemistry.

MEETINGS: Organizer/co-organizer/presider of more than 50 sessions at National and International Meetings, ACS Webinars in Drug Discovery, ACS Prospectives Meetings and Short Courses on aspects of drug design.

EDITORIAL BOARDS: Perspectives Editor for the *Journal of Medicinal Chemistry*, July 2017-present. Past member of the EABs for *Chemical Research in Toxicology*, *ACS Medicinal Chemistry Letters*, the *Journal of Medicinal Chemistry*. Series Editor, *Topics in Medicinal Chemistry*, Springer.

Adjunct Professor of Medicinal Chemistry, *The Baruch S. Blumberg Institute*, Doylestown, PA.

AWARDS AND RECOGNITION

- Admitted as a member of the *Connecticut Academy of Science and Engineering*, February, 2014.
- Co-recipient of a *PhRMA Research and Hope Award for Biopharmaceutical Industry Research*, 2014 for outstanding research in the area of HIV/AIDS.
- Recipient of the 2015 *Philip S. Portoghese Medicinal Chemistry Lectureship Award* administered jointly by the ACS Division of *Medicinal Chemistry* and the *Journal of Medicinal Chemistry*.
- Inducted into the *ACS Division of Medicinal Chemistry Hall of Fame*, August 18th, 2015.
- Co-recipient of a 2017 "*Heroes of Chemistry*" Award sponsored by the *American Chemical Society*