DESCRIPTION

Edited by three of the world’s leading pharmaceutical scientists, this is the first book on this important and hot topic, containing much previously unpublished information. As such, it covers all aspects of green chemistry in the pharmaceutical industry, from simple molecules to complex proteins, and from drug discovery to the fate of pharmaceuticals in the environment. Furthermore, this ready reference contains several convincing case studies from industry, such as Taxol, Pregabalin and Crestor, illustrating how this multidisciplinary approach has yielded efficient and environmentally-friendly processes. Finally, a section on technology and tools highlights the advantages of green chemistry.

ABOUT THE AUTHOR

Peter Dunn received his PhD from Imperial College London in 1987 working under the supervision of Professor Charles Rees. Postdoctoral work followed with Prof. Albert Eschenmoser at the ETH, Zurich and with Prof. Henry Rapaport at the University of California, Berkeley. In 1989 he joined Pfizer and was involved with the invention of the commercial processes to make several medicines including “Viagra”, Emselex, Revation and Sampatrilat. In 2000 he became Director of Chemical R & D at Pfizer and was responsible for the filing and transfer to manufacturing of human and animal medicines such as Voriconazole, Darifenacin, Fosfluconazole and Dirlotapide. In 2006 he took up his current role as Global Green Chemistry lead for Pfizer. He is currently co-chair of the Green Chemistry Institute Pharmaceutical Roundtable and a member of the editorial board for the journal of Green Chemistry.
Andrew Wells obtained his PhD in organophosphorous and organometallic chemistry from Essex University, before joining the Chemical Development Group of SmithKline & French in 1986, which later became SmithKline Beecham. In 1999 he received a SKB corporate award for green chemistry/technology. In 2000, he joined AstraZeneca in Global Process R & D where he is currently a Senior Principal Scientist and heads the AZ GPRD Green Chemistry group. He is an active member of the ACS Green Chemistry Institute Pharmaceutical Roundtable and has acted as an advisor to the UK Chemical Innovation Knowledge Transfer Network and the UK Technology Strategy Board. A keen supporter of the industry-academia interface, having been involved closely with several major collaborations such as the Centre for Biocatalysis at Manchester and the Institute of Process R & D at Leeds University, he has also been an industrial supervisor to around 20 PhD and MSc students.

Michael Williams obtained his chemistry BSc from King's College, London, and spent time as a medicinal chemist at ICI Pharmaceuticals (Alderley Park), before obtaining his PhD working with Professor Charles Rees at the University of Liverpool. He joined the Chemical R & D department at Pfizer at Sandwich in 1972, where his career responsibilities included the Medicinal Chemistry/Development interface, and technology adoption. In addition to his experience with approximately 50 early drug candidates, he played a significant role in the late development, filing and commercializing of many agents including Zoloft, Viagra and Relpax. He became Executive Director and Departmental Head of UK Chemical R & D in 2003, leading a significant growth to 117 laboratory staff, and helping to build a 40 strong Material Sciences group. Since retiring from Pfizer in 2007, he has been an independent consultant, in addition to his work in editing and scientific writing.

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