Sir Michael David Rawlins GBE FBPhS FMedSci

Contributions from Simon Thomas, Gary Ford, Nick Bateman, Phil Routledge, Peter Blain, David Webb, Munir Pirmohamed.

Mike was born on 28th March 1941, and educated at Hawtreys in Wiltshire and Uppingham School in Rutland. He attended St Thomas's Hospital Medical School where he obtained an intercalated degree in Anatomy (with first class honours) and subsequently qualified in Medicine in 1965, having been awarded several prizes and scholarships during his undergraduate training. He returned to St Thomas's Hospital to study with Bill Cranston where his studies on the mechanism of action of aspirin cemented his interest in clinical pharmacology. He was appointed as a Senior Registrar in Clinical Pharmacology at the Hammersmith Hospital with Colin Dollery, who described him as the brightest junior he had ever had. Subsequently he spent a year as an MRC travelling fellow at the Karolinska Institute in Stockholm, working with Folke Sjöqvist. During his early career, he became interested in variability in response to drugs, adverse drug reactions and safe prescribing, interests he maintained throughout his life.

Mike was appointed as the founding Ruth and Lionel Jacobson Professor of Clinical Pharmacology at the University of Newcastle in 1973 at the age of 32. He designed the present Wolfson Unit building on the Newcastle University campus. This housed outpatient clinics, a medicines information centre and research beds downstairs and offices and laboratories upstairs. Over a 33 year period in Newcastle, Mike was responsible for many other developments: establishment of a ward specialising in general medicine, clinical pharmacology and the treatment of poisoning in 1977 at the newly built Freeman Hospital; establishing the Clinical Drug Information and Poisons Service (with Dai Davies); identifying the skin as a major site of drug metabolism (with Sam Schuster); and development of the Diploma in Therapeutics programme, which provided training in clinical pharmacology and safe and effective prescribing for GPs. He was a keen supporter of the role of pharmacists in encouraging high-quality prescribing and supported the establishment of the Northern Regional Drug and Therapeutics Centre (RDTC) in 1990, with support from the former Northern Regional Health Authority and the University. This Centre, directed by Nick Bateman (a clinical pharmacologist) and Jim Smith (a pharmacist), monitored prescribing by general practitioners and provided guidance on safe, effective, and cost-effective prescribing, as well as providing medicine and poisons information services (and later the National Teratology Information Service). The RDTC continues to provide information and advice to the NHS today.

Mike maintained his commitment to his clinical work, including taking a full share of the admitting consultant physician rota until he retired from direct clinical practice in 2006. He was an excellent physician, able to provide a sound clinical opinion on a huge range of medical issues, and his regular contact with patients ensured that policies he developed during his national work were patient-centred and relevant to the sharp end of medicine. Mike maintained strong connections with the North-east of England. After his retirement from Newcastle, he continued to support the University as an Emeritus Professor. He was a member of the University's council and four years ago opened its new School of Pharmacy. He was also Deputy Lieutenant of the County of Tyne and Wear from 1999 to 2008. The University conferred on him an honorary doctorate in civil law in 2008.

Mike's personality and enthusiasm attracted clinicians and scientists to research in clinical pharmacology. He strongly supported his staff and maintained a keen interest in their career choices and their subsequent progression. One of his many legacies is the number of eminent Clinical Pharmacologists, and others in related specialties, who spent a fruitful period of their careers in the Wolfson Unit. He was also a great supporter of the British Pharmacological Society (BPS), encouraging submission of research findings to BPS meetings and coaching trainees on how to write succinct abstracts. He also helped them rehearse oral presentations before meetings. Mike served as a Member of the BPS Committee and then as Chair of the BPS Committee of Professors of Clinical Pharmacology (1999-2003). He won the BPS Lilly Prize and Medal in 1997 and was elected an honorary Fellow of the Society in 2005.

Mike made a sustained contribution to research in variability in drug response, publishing widely on the impact of disease, genetics, race, ageing and drug interactions. He developed the Rawlins-Thompson (with John W Thompson) classification of adverse drug reactions, distinguishing 'Type A' ('Augmented' or dose-related) from Type B ('Bizarre' or unpredictable) adverse reactions, which remains in common use today. He held a lifelong commitment to medicines safety and is considered by many to be the founding father of pharmacovigilance, the scientific discipline of the detection, assessment, understanding and prevention of adverse drug reactions.

Mike was a stalwart for medicines regulation in the UK having served on many of the regulatory committees advising the Medicines and Healthcare Products Regulatory Agency (MHRA, previously the Medicines Control Agency) over a period of 18 years, beginning in 1980. He was Chair of the Committee on Safety of Medicines from 1993 until 1998. Mike was pivotal in expanding the reporter base for yellow cards starting with pharmacists. He established a regional monitoring centre for adverse drug reactions in Newcastle, which subsequently became the Northern and Yorkshire Yellow Card Centre (YCC), part of the YCC network supported by the MHRA. He returned to the MHRA later in his career as its Chair between 2014 and 2020. During this time, he oversaw the move to Canary Wharf; nurtured regulatory science; and supported UK clinical trials and drug development for rare diseases, fast-tracking of approvals of the most promising new therapies and cost-effective biosimilar products. Importantly, he helped in building UK big data capabilities through the creation of the Clinical Practice Research Datalink (CPRD).

Arguably, one of the greatest achievements of his career was the establishment of the National Institute for Clinical Excellence, now the National Institute for Health and Care Excellence (NICE). This reflected his life-long commitment to ensuring that prescribing was based on quality and cost, and that access to healthcare should be equitable, and not subject to a post-code lottery. At the time NICE was established in 1999, it was highly controversial, including amongst the pharmaceutical industry. However, it has proven to be highly successful thanks to Mike's leadership, and now has 680 employees and is admired and emulated worldwide.

Mike Rawlins held many other prominent positions nationally during his career. Some of the most notable were Chair of the Advisory Council on Drug Misuse from 1998 to 2008; President of the Royal Society of Medicine (2012-14) and Chair of the UK Biobank (2012-2019). In 2011, Mike led the Academy of Medical Sciences report, 'A New Pathway for the Regulation and Governance of Health Research' which led to the development of the Health Research Authority with the aim of streamlining complex research governance requirements in the UK.

He also delivered the prestigious Harveian Oration ("*De Testimonio: on the evidence for decisions about the use of therapeutic interventions*") at the Royal College of Physicians of London in 2008. The lecture reflected his life-long interest in statistics, where he brought out a strong argument against 'hierarchies of evidence'.

Mike was knighted in 1999 for services to the improvement of patient protection from the side effects of medicines and appointed Knight Grand Cross of the Order of the British Empire (GBE) in 2017 for services to the safety of medicines, healthcare, and innovation. He was especially proud of the recognition provided by his GBE.

Mike was a giant of clinical pharmacology, medicines regulation and health technology assessment, who has left an enduring international legacy in clinical pharmacology, pharmacovigilance and the safe, effective and efficient use of medicines. In 2013, in a BMJ Q&A article, he was asked "What personal ambition do you still have?" He answered: "*To be able, either directly or indirectly, to continue to have the opportunity to make a difference to people's lives*".

Mike Rawlins died on 1 January 2023. He married Elizabeth Hambly in 1963 and they divorced in 2005. He had three daughters, eight grandchildren and a great-grandchild.