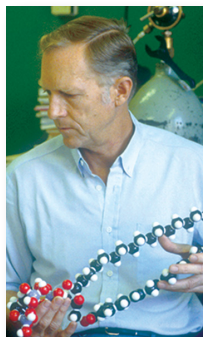


Sir Michael Berridge FMedSci FRS (22 October 1938 – 13 February 2020)



Sir Michael Berridge, one of the giants in the fields of biochemistry and physiology, passed away on 13 February 2020. Mike, as he was universally known, discovered one of the most important regulatory mechanisms in animal cells, namely the ubiquitous calcium-releasing effect of the small water-soluble molecule inositol trisphosphate (IP_3). Mike was also a great synthesizer, who effectively created an entirely new field – calcium signalling – in cell biology. Through his numerous highly cited review articles and insightful overview lectures at the most important biomedical conferences, he dominated a large and increasingly important research field. In recognition of his enormous contributions to biomedical science, Mike received almost every major scientific award, including election to the Royal Society, a knighthood from Queen Elizabeth II for ‘Services to Science’, election to the US National Academy of Sciences, the King Faisal International Prize in Science, the Jeantet Prize in Medicine, the Gairdner Foundation International Award, the Lasker Basic Medical Research Award, the Dr H.P. Heineken Prize for Biochemistry and Biophysics, the Wolf Foundation Prize in Medicine and the Shaw Prize in Life Sciences and Medicine.

Mike was born in what is now Zimbabwe and received his BSc from what was then called University College of Rhodesia and Nyasaland (now University of Zimbabwe). He obtained his PhD from the University of Cambridge and was a post-doctoral fellow at the University of Virginia and Case Western Reserve University in USA. Thereafter, he spent what would become by far the major part of his working life in Cambridge, first in the University Department of Zoology and later at the Babraham Institute, where he was the head of Cell Signalling until his retirement in 2003. He continued to work at the institute as an Emeritus Babraham Fellow until recently.

Mike’s sensational discovery of IP_3 as the ubiquitous releaser of calcium from intracellular stores was published in *Nature* in 1983. It was clearly Mike’s insight and creative conceptual idea that prompted the key experiments that were then carried out by Irene Schulz and her post-doctoral research fellow, Hans-Peter Streb, at the Max Planck Institute for Biophysics in Frankfurt. In Cambridge, Robin Irvine was a key collaborator in

this work, and it was the 1984 review article in *Nature* by Mike and Robin that very effectively signposted what amazingly quickly became generally accepted as one of the key findings in the field of cellular signal transduction mechanisms. The IP_3 calcium-releasing pathway is now featured in all textbooks of biochemistry and physiology.

Although Mike was an accomplished and sophisticated experimentalist in his early years, his main interest – after his great discovery – became increasingly focussed on the ‘big picture’ of intracellular calcium signalling. His great strength was the constant focus on creating more and more intricate models of the intracellular signal transduction processes, which he presented at the major conferences in the field and published in numerous influential review articles. This created the context for the evolution of the calcium signalling research field.

I met Mike almost half a century ago (autumn 1970) at a Royal Society Discussion Meeting in London on ‘Active transport of salt and water in living tissues’. At that time, we both worked on the mechanisms underlying the formation of saliva, a topic most biomedical scientists regarded as not only esoteric, but also rather unimportant! However, it was precisely Mike’s work on insect salivary glands that led to the discovery that constitutes the very foundation of the calcium signalling field.

Mike was a formidable lecturer. He spoke with great authority and exceptionally clear diction. Furthermore, he was able to express complicated concepts in an intuitively clear manner. In addition to his profound scientific insights, these attributes made him one of the most sought after plenary lecturers at symposia and congresses throughout the world.

Mike was generous with his time, freely gave away ideas and was always willing to provide support when asked. His influence on all of us was profound and his help, advice and direct support will not be forgotten.

Ole H. Petersen (Cardiff University, UK)

Sir Michael Berridge is the sole author of Cell Signalling Biology, a major contribution to the field of cell signalling. Providing researchers, teachers and students alike with an outstanding online resource describing the biology of cell signalling, it is sponsored by the Biochemical Society and Portland Press, ensuring online access is freely available to all: portlandpress.com/pages/cell_signalling_biology.