Professor Sir Christopher Martin Dobson (1949–2019)

On September 8th 2019 the world was saddened to learn of the death of Professor Sir Chris Dobson, FMedSci FRS FRSC, a much-loved and exceptional scientist, at the age of 69. Chris had an enormously productive career in science, publishing a staggering 840 papers focussed on how proteins fold and how protein misfolding leads to disorders such as Alzheimer’s and Parkinson’s diseases. Through his work we have learned the rules of protein folding and are at the cusp of beginning to understand misfolding diseases. Chris was the pioneer of these fields in recent times, his work and insights helping to advance the global understanding of these phenomena.

Chris was a scientist of global repute. His achievements were borne from his excitement in tackling challenging problems of generic interest. What could be more fundamental and important than understanding how the sequence of amino acids enables the ability of proteins to assemble spontaneously into their beautiful and complex 3D structures? His discoveries came by combining his expertise as a chemist employing analytical approaches, with a physicist’s mind able to interrogate complex molecular behaviours using computational approaches, and a biochemist’s skills to dissect life into the dance of its molecular components. Together these led to new understandings of protein folding mechanisms and the molecular events that cause proteins to misfold and self-assemble into toxic oligomers that cause cellular dysfunction and disease. Through his work we have been able to ‘see’ how lysozyme folds, to understand the nature of partially folded proteins, and to discover that possibly every single protein can misfold into amyloid, as exemplified by his ground breaking work on the aggregation and self-assembly of SH3 domains into amyloid fibrils.

Chris received numerous awards for his work, including Fellowship of the Royal Society (1996), Bijvoet Medal from the University of Utrecht (2002), Royal Society Bakerian Lecturer (2003), Stein and Moore Award of The Protein Society (2003), Davy Medal of The Royal Society (2005), Hans Neurath Award of The Protein Society (2006), Royal Medal of the Royal Society (2009), Heineken Prize for Biochemistry and Biophysics (2014), and the Feltrinelli International Prize for Medicine (2014). In 2012, Chris and his colleagues, Professors Michele Vendruscolo and Tuomas Knowles, also in the Department of Chemistry at the University of Cambridge, founded the Cambridge Centre for Misfolding Diseases, to focus on “elucidating the molecular causes of protein misfolding and aggregation, and discovering therapeutic strategies for combating the family of disorders with which this phenomenon is connected”. In 2019 this team were awarded the Rita and John Cornforth Award of the Royal Society of Chemistry for their achievements. Chris was knighted in the 2018 Queen’s Birthday Honours for his contributions to science and higher education.

As well as his research leadership, Chris was a wonderful mentor and inspirational leader to the hundreds of students and postdocs that passed through his research group, as well as to the many collaborators he enjoyed working with from across the world. He was a true and honest ambassador of science—driven by the firm belief that his success would come only after he had secured the success of those with whom he worked. Chris also much enjoyed, and was dedicated to his role as Master of St. John’s College Cambridge which he held from 2007 to his death.

Chris Dobson was born on the 8th October 1949 in Rinteln, Germany, where his father Arthur Dobson was a commissioned officer. Due to his father’s postings Chris also lived in Lagos, Nigeria. Chris was educated at Hereford Cathedral Junior School and then Abbingdon School from 1960 to 1967. He completed his MA and DPhil at the University of Oxford where he was a student at Keble College and Merton College. Chris’ association with Oxford did not end there, and after a brief spell as a research fellow at Linacre College, Chris worked at Harvard University before returning to Oxford in 1980 as a Fellow of Lady Margaret Hall and University Lecturer in Chemistry, later being promoted to Reader, then Professor of Chemistry in 1996. Chris moved to the University of Cambridge in 2001 where he held the role as the John Humphrey Plummer Professor of Chemical and Structural Biology.

As well as his ground-breaking science, Chris leaves a second, equally important, legacy: the community of students and researchers well trained to tackle important questions in biology by working across the disciplines. Those of us that came through his group, and those who knew Chris from scientific meetings, will remember him as a kind, supportive supervisor and mentor, who made time to listen and inspire no matter how busy he was. Having learned of his Knighthood, with typical modesty, Chris remarked: “I am truly honoured to receive this remarkable honour. It would not have been possible without the brilliance and dedication of my students and scientific colleagues over many years, whose commitment to improving the lives of those suffering from Alzheimer’s disease and other neurodegenerative conditions is deeply impressive.”

Chris is survived by his wife, Dr Mary Dobson, who Chris met at Merton College, Oxford, and their sons Richard and William, and his beloved dog, Jimbo.

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