University of Birmingham

Dr Stephen Dove PhD

Lecturer in Biosciences

School of Biosciences

Contact details

Telephone +44 (0)121 414 8513 (tel:+44 121 414 8513)

Fax +44 (0)121 414 7816

Email s.k.dove@bham.ac.uk (mailto:s.k.dove@bham.ac.uk)

School of Biosciences
University of Birmingham
Edgbaston
Birmingham
B15 2TT
UK

About

Dr Dove is a recognised expert in the field of lipid signalling and a lecturer in the School of Biosciences.

Qualifications

- BSc (University of Birmingham)
- PhD (University of East Anglia / John Innes Institute)

Biography

Dr Stephen Dove was born in Newham in London to working class parents. His family left for rural Kent when he was 12 and there he discovered a love of nature and plants during long walks through the woods and fields. This interest was fueled by two inspirational teachers at his local comprehensive school and so he gave up an early love for acting and drama to pursue a scientific career, becoming the first member of his family ever to go to University.

After obtaining a BSc from Birmingham University and then a PhD from the John Innes Institute, Dr Dove now studies intracellular signalling at the University of Birmingham.

Teaching

Although trained as a biologist, Dr Dove now teaches biochemistry to students in all three years of the Undergraduate programme at the School of Biosciences. Dr Dove enjoys using humour to make learning fun and amusing and also likes to ask for audience participation in many of his lectures. He has achieved widespread recognition for his innovative use of unusual pointing devices during class; these have previously included a medieval broadsword, a fluorescent light tube and a broom handle. He is also famed for quirky one-liners that question the dress sense of other members of the school and indeed his own sanity. Students emerging from his lectures frequently end up questioning their own.

Research

All cells constantly survey their internal and external environment and transform this information into chemical messages that programme the cell to respond appropriately to these prevailing conditions. Phosphoinositides are a class of these intracellular chemical messages and are unusual in that they are all lipids. Signalling lipids regulate many cellular processes and are also involved in the pathphysiology of many diseases, including most kinds of cancer. They also control the cytoskeleon and the flow of membranes inside the cell.

Dr Dove co-discovered the phosphoinositide PtdIns(3,5)P_2 in 1997and continues to research the biology of this and other signalling lipids.

Other activities

Dr Stephen Dove is a keen roleplayer, writer and survivalist and enjoys horse riding expeditions to Mongolia and other extreme environments. He once studied medieval fencing and still keeps his broadsword near at hand in case his students start to annoy him.

Publications

Phosphatidylinositol 3,5-bisphosphate and Fab1p/PIKfyve underPPIn endo-lysosome function.
Dove SK, Dong K, Kobayashi T, Williams FK, Michell RH. Biochem J. 2009 Apr 1;419(1):1-13.

Inositol lipid-dependent functions in Saccharomyces cerevisiae: analysis of phosphatidylinositol phosphates. Dove SK, Michell RH. Methods Mol Biol. 2009;462:59-74

A protein complex that regulates PtdIns(3,5)P2 levels.
Michell RH, Dove SK. EMBO J. 2009 Jan 21;28(2):86-7.

Phosphatidylinositol 3,5-bisphosphate: metabolism and cellular functions.
Michell RH, Heath VL, Lemmon MA, Dove SK. Trends Biochem Sci. 2006 Jan;31(1):52-63

Svp1p defines a family of phosphatidylinositol 3,5-bisphosphate effectors.
Dove SK, Piper RC, McEwen RK, Yu JW, King MC, Hughes DC, Thuring J, Holmes AB, Cooke FT, Michell RH, Parker PJ, Lemmon MA. EMBO J. 2004 May 5;23(9):1922-33

Osmotic stress activates phosphatidylinositol-3,5-bisphosphate synthesis.
Dove SK, Cooke FT, Douglas MR, Sayers LG, Parker PJ, Michell RH. Nature. 1997 Nov 13;390(6656):187-92