



Curriculum Vitae Prof. Dr. Ottoline Leyser



Name: Ottoline Leyser

Born: 7 March 1965

Major Scientific Interests: Shoot branching, shoot meristems, environmental adaptation, plant growth, plant hormones

Ottoline Leyser is a British plant biologist whose main research interests are the genetics of plant development and the role of plant hormones in integrating endogenous and environmental developmental inputs. Her research primarily concentrates on shoot branching models.

Academic and Professional Career

- since 2020 Chief Executive of the UK Research and Innovation (UKRI)
- since 2013 Director of the Sainsbury Laboratory, University of Cambridge, UK
- 2011 - 2012 Associate Director of the Sainsbury Laboratory, University of Cambridge, UK
- since 2011 Professor for Plant Development, Sainsbury Laboratory, University of Cambridge, UK
- 1994 - 2010 Lecturer, Reader, Professor of Plant Developmental Genetics, Department of Biology, University of York, UK
- 1990 - 1994 Research Associate, Indiana University, USA und University of Cambridge, UK
- 1990 PhD in Genetics, University of Cambridge, UK
- 1986 BA in Genetics, University of Cambridge, UK

Functions in Scientific Societies and Committees

- 2014 - 2019 Chair, British Society for Developmental Biology
- 2013 - 2017 Chair, Royal Society Science Policy Advisory Group
- 2012 - 2015 Member, Council of the Royal Society

- 2012 - 2015 Co-Chair, Nuffield Council on Bioethics
- 2011 - 2015 President, International Plant Molecular Biology
- 2005 - 2006 Member of the Data Policy Working Group
- 1999 - 2004 Treasurer of the British Society for Developmental Biology
- Co-Editor in Chief and Editor of Development of Current Opinions in Plant Biology

Honours and Awarded Memberships

- 2022 Croonian Medal and Lecture, Royal Society of London and the Royal College of Physicians
- 2020 British Society for Developmental Biology's Waddington Medal
- 2016 UK Genetics Society Medal
- since 2014 Member of the German National Academy of Sciences Leopoldina
- since 2012 Foreign associate member of the US-National Academy of Sciences
- 2010 International Plant Growth Substance Association's Silver Medal
- 2009 Commander of the Order of the British Empire
- 2007 Rosalind Franklin Award of the Royal Society
- 2007 Member of the European Molecular Biology Organisation (EMBO)
- 2007 Fellow of the Royal Society
- 2000 President's Medal, Society of Experimental Biology

Major Scientific Interests

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Plants continuously adjust their body plan to suit the environmental conditions in which they are growing. A good example of this is in the regulation of shoot branching. Axillary meristems, which are established in the base of each leaf formed from the primary shoot apical meristem, can remain dormant as a bud or they can activate to produce a branch. The decision whether or not to activate an axillary meristem involves integration of a wide range of environmental, physiological and developmental factors. An increasing body of evidence suggests that the regulatory system for bud activity centres on the self-organising properties of the systemic transport network for the plant hormone, auxin.

Leyser's research is aimed at understanding this network and its mode of action, combining molecular biological, physiological and quantitative genetic approaches with computational modelling to understand environmentally responsive shoot branching patterns.