



Curriculum Vitae Prof. Dr. Joanne Chory

Name: Joanne Chory
Born: 19 March 1955



Major Scientific Interests: Adaptation processes, plant growth, genetic diversity, natural variations, light conditions, shade avoidance syndrome, plant biology, climate change, growth hormone auxin, phytochromes, brassinosteroids

Joanne Chory is an American plant biologist whose work has contributed to the identification of plant hormones. She investigates the natural variations in plant species and plant reactions to different light and temperature conditions. Her studies have helped us understand how plants adapt to climate change.

Academic and Professional Career

since 1999 Adjunct Professor, Biology Department, University of California, San Diego, USA
since 1998 Director, Plant Biology Laboratory, The Salk Institute, La Jolla, USA
1997 Investigator, The Howard Hughes Medical Institute. USA
1994 - 1998 Associate Professor, Plant Biology Laboratory, The Salk Institute, La Jolla, USA
1992 - 1994 Adjunct Assistant Professor, Biology Department, University of California, San Diego, USA
1988 - 1994 Assistant Professor, Plant Biology Laboratory, The Salk Institute, USA
1984 - 1988 Postdoctoral Fellow, Harvard Medical School, USA
Ph.D. in microbiology, University of Illinois, USA
B.A. in biology, Oberlin College, Ohio, USA

Honours and Awarded Memberships

2018	Breakthrough Prize in Life Sciences
2012	Genetics Society of America Medal
2011	Foreign Member of the Royal Society
2009	Foreign Member of the French Académie des Sciences
since 2008	Member of the German National Academy of Sciences Leopoldina
since 2006	Associate member of the European Molecular Biology Organization (EMBO)
since 2005	Fellow of the American Association for the Advancement of Science
2004	Kumho Award in Plant Molecular Biology
2003	Scientific American 50-Research Leader in Agriculture
2000	L'Oréal-UNESCO Award for Women in Science
since 1999	Member of the US National Academy of Sciences
since 1998	Member of the American Academy of Arts and Sciences
1995	Charles Albert Schull Award, American Society of Plant Physiologists
1994	Award for Initiatives in Research, US-National Academy of Sciences

Major Scientific Interests

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Individual members of the same plant species often thrive in very different environmental conditions. The model plant used by plant geneticists, thale cress (*Arabidopsis thaliana*), grows in many parts of the world – from northern Scandinavia to Central Africa. Chory's team is researching the plant's natural variants, searching for molecular clues to this adaptation process in the DNA. Her laboratory has made a significant contribution to decoding three important plant hormones. For example, she and her colleagues explained the previously unknown process of how plants produce the important growth hormone auxin.

Chory used thale cress to explain the well-known phenomenon of shade avoidance syndrome. Light-sensitive proteins in plants, called phytochromes, constantly measure ambient light conditions. If the plant's surroundings are too crowded and shady, processes enabling it to shoot up quickly are activated. With the help of gene analyses, Chory's team were able to localise growth genes that are responsible for shade avoidance syndrome. She also discovered that plants' reactions to light conditions are controlled by genetic variations. These variations make plants in

northern countries more light-sensitive than those at the equator. Chory's analyses have also shown that a process involving many different interactions, rather than a linear signal transfer, is responsible for reactions to light conditions.

Chory's laboratory also decoded the molecular signal chain of other hormones that help plants thrive. Brassinosteroids influence the activity of genes that control cell ageing processes as well as plant growth. Through additional research on brassinosteroids, Chory and her team hope to learn even more about the mechanism of plant growth and to find out how changes in the environment influence growth.