

Profile

The Nobel Prize in Physiology or Medicine 2014



Prof. May-Britt Moser, Ph.D.

Professor/Director

Kavli Institute for Systems Neuroscience/Centre for Neural Computation

Norwegian University of Science and Technology

Norway.

Prize motivation: "for their discoveries of cells that constitute a positioning system in the brain".

Professors Edvard, Kavli Institute for Systems Neuroscience (director and co-director, respectively), as well as the Centre for the Biology of Memory at the Norwegian University of Science and Technology. Their research has provided key insights into how spatial location and spatial memory are computed in the brain. One of these insights has led to an immediate revision of well-established views of how the brain calculates position and how the results of these computations are used by memory networks in the hippocampus – an insight that may ultimately benefit the development of tools for diagnostics and treatment of Alzheimer's disease.

Edvard and May-Britt were born in Norway, and attended the University of Oslo. Both are members of The Royal Norwegian Society of Sciences and Letters, and The Norwegian Academy of Science and Letters. They have also led the Kavli Institute since its establishment in 2007.

In this special interview, Edvard and May-Britt Moser explain how spatial locations and memories interact in the brain, how their own research began and has advanced, and the discovery of grid cells in the entorhinal cortex, as well as look ahead at the potential impact new insights may have for fighting neurodegenerative diseases.