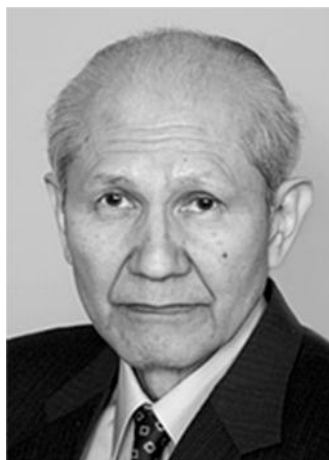


Nobel Prize in Chemistry 2008



Osamu Shimomura



Martin Chalfie



Roger Y. Tsien

The Nobel Prize in Chemistry 2008 was awarded jointly to Osamu Shimomura, Martin Chalfie and Roger Y. Tsien *"for the discovery and development of the green fluorescent protein, GFP"*.

Information about winners:

Osamu Shimomura,

Marine Biological Laboratory (MBL), Woods Hole, MA, USA and Boston University Medical School, MA, USA,

Martin Chalfie,

Columbia University, New York, NY, USA

Roger Y. Tsien,

Howard Hughes Medical Institute, University of California, San Diego, La Jolla, CA, USA

Summary of research work:

Glowing proteins - a guiding star for biochemistry

The remarkable brightly glowing green fluorescent protein, GFP, was first observed in the beautiful jellyfish, *Aequorea victoria* in 1962. Since then, this protein has become one

of the most important tools used in contemporary bioscience. With the aid of GFP, researchers have developed ways to watch processes that were previously invisible, such as the development of nerve cells in the brain or how cancer cells spread.

Tens of thousands of different proteins reside in a living organism, controlling important chemical processes in minute detail. If this protein machinery malfunctions, illness and disease often follow. That is why it has been imperative for bioscience to map the role of different proteins in the body.

This year's Nobel Prize in Chemistry rewards the initial discovery of GFP and a series of important developments which have led to its use as a tagging tool in bioscience. By using DNA technology, researchers can now connect GFP to other interesting, but otherwise invisible, proteins. This glowing marker allows them to watch the movements, positions and interactions of the tagged proteins.

Researchers can also follow the fate of various cells with the help of GFP: nerve cell damage during Alzheimer's disease or how insulin-producing beta cells are created in the pancreas of a growing embryo. In one spectacular experiment, researchers succeeded in tagging different nerve cells in the brain of a mouse with a kaleidoscope of colours.

[For more details please visit:](http://www.nobelprize.org/nobel_prizes/chemistry/laureates/2008/popular-chemistryprize2008.pdf)

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