

Cell biology scientists share Shaw Prize

May 27 2014

A Japanese scientist and a German-born biophysicist were on Tuesday named joint winners of the prestigious \$1 million Shaw Prize for their pioneering research into molecular production.

Kazutoshi Mori and Peter Walter received Asia's highest scientific honour in recognition of their contribution to the understanding of how several diseases can be better treated, organisers said.

Mori, a molecular biologist at Japan's Kyoto University, and Walter—a professor at the University of California in San Francisco, studied how cells ensure that proteins such as insulin are constructed properly.

The scientists discovered a mechanism called the "Unfolded Protein Response" which kicks into action when imbalances in the production of proteins are detected.

Imbalances in [protein production](#) can cause diseases including diabetes, cystic fibrosis and cancer. The response regulates or tries to fix irregular protein development.

"The fundamental mechanisms uncovered by Mori and Walter form the basis for understanding and treating a wide range of important diseases," a statement by the award's organisers said.

While Mori and Walter took the "Life Science and Medicine" award, the [prize](#) now in its eleventh year also recognises achievements in the categories of astronomy and mathematical science.

The mathematical prize went to George Lusztig of the Massachusetts Institute of Technology for his "contributions to algebra, algebraic geometry, and representation theory".

The astronomy prize went jointly to Daniel Eisenstein of Harvard University, Shaun Cole of Durham University and John Peacock of the University of Edinburgh for "their contributions to the measurements of features in the large-scale structure of galaxies".

The Shaw Prize was founded by the late Hong Kong film producer and philanthropist Run Run Shaw.

The prize is dedicated to "furthering societal progress, enhancing quality of life, and enriching humanity's spiritual civilisation".

Shaw, the billionaire film pioneer who launched a media empire that stretched from Hong Kong to Hollywood, died in January at the age of 106.

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