

Biological clock scientists share Asian prize

May 28 2013

Three scientists whose groundbreaking studies using fruit flies helped to uncover the workings of the human biological clock were Tuesday named the winners of the \$1 million Shaw Prize.

US scientists Jeffrey Hall, Michael Rosbash and Michael Young received the award "for their discovery of [molecular mechanisms](#) underlying [circadian rhythms](#)", the prize organisers said in a statement.

[Biological rhythms](#) govern behaviour in plants, animals and humans, from flowers opening during the day and closing at night, to sleep patterns and the effect of jet lag.

The three scientists, who will share the \$1 million life science and medicine award, conducted a series of landmark studies on mutant fruit flies, discovering the fundamental mechanism that controls these rhythms—a gene with a 24-hour cyclical feedback loop.

Their work later shed light on further genes involved in the clock mechanism and how they controlled daily rhythms.

The prize, now in its tenth year, also recognises achievements in the categories of astronomy and mathematical science, with \$1 million going to each.

The astronomy prize went jointly to Steven Balbus of Oxford University and John Hawley of the University of Virginia for their discoveries in "accretion", a phenomenon in astrophysics which plays a key role in star

formation and the growth of [supermassive black holes](#).

The prize for [mathematical science](#) went to David Donoho of Stanford University for his "profound contributions" in developing new mathematical and statistical tools.

The Shaw Prize is funded by Hong Kong film producer and philanthropist Run Run Shaw.

It honours exceptional contributions to "furthering societal progress, enhancing quality of life, and enriching humanity's spiritual civilisation".

The presentation ceremony is scheduled for September 23.

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