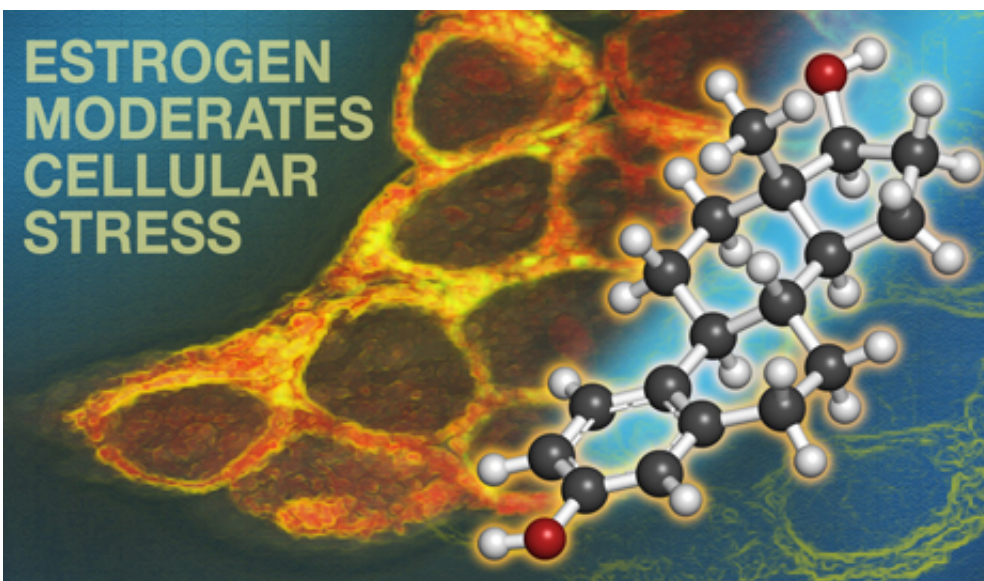


Estrogen helps calm stressed cells, researchers find

September 22 2014, by Bill Hathaway



Credit: Patrick Lynch

Stress is as bad for cells as it is for people, but scientists have had a hard time devising ways to study its effects on cells without killing them.

Yale researchers have developed a system that solved the experimental problem and in the process made a surprising discovery: the [hormone estrogen](#) seems to help cells weather stress.

In the Sept. 21 issue of the journal *Nature Chemical Biology*, the Yale team led by Craig Crews found that the estrogen pathway is activated

when cells are subjected to stress.

Following up on this study, the team has also discovered that introduction of the hormone can help cells negotiate certain stressful environments. The findings have interesting implications — beyond fueling speculation that estrogen helps women live longer than men, Crews said.

For instance, anti-estrogen therapy could help kill cancer [cells](#) and prolong survival of patients, he said.

More information: Targeted protein destabilization reveals an estrogen-mediated ER stress response , *Nature Chemical Biology*, [DOI: 10.1038/nchembio.1638](#)

Provided by Yale University

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