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Press Release 11-055

Some Outcomes of the Evolutionary Race Buck Conventional Wisdom

Organisms focusing on long-term mutations survive while others focusing on short-term fitness gains go extinct



Richard Lenski and another researcher examine a Petri dish used in a study of evolution.

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Some surprising results in the evolutionary race.

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Richard Lenski's findings are described in the March 18, 2011 issue of the journal *Science*.

[Credit and Larger Version](#)

March 22, 2011

View a [video](#) with Richard Lenski of Michigan State University.

For broadcasters: Sound bites are available as SD .mov files from Stephen McNally at (703) 292-8365 and at smcnally@nsf.gov.

In some cases, less fit organisms may out-survive their in-shape counterparts, according to a study reported in the March 18 issue of *Science*. The finding surprised researchers who assumed less fit organisms would be the eventual losers in evolution's fight for survival.

Microbial Ecology professor Richard Lenski of Michigan State University conducted the study with funding from the National Science Foundation (NSF).

Using easy-to-understand terms in a revealing video accompanying this release, Lenski describes his results and explains why his study is so unique.

"This remarkable long-term study continues to yield surprises, providing unprecedented detail on the richness and complexity of evolution," said Saran Twombly, a program manager in NSF's Division of Biological Infrastructure. "In this case, experiments reveal how and why the tradeoff between long-term success and short-term gain confers evolutionary success, providing evidence of a compromise long theorized to exist."

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Related Websites

Michigan State University press release on the study: <http://news.msu.edu/story/9096/>

Richard Lenski's essay and interview in NSF's Evolution of Evolution Special Report: http://www.nsf.gov/news/special_reports/darwin/bio.jsp

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