



## MSU Museum explores evolution in action

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Beginning April 22 and continuing throughout the next five years, the Michigan State University Museum presents a series of exhibitions that explore evolution in action.

These exhibits are developed in partnership with the new BEACON Center for the Study of Evolution in America. The center helps researchers approach evolution in innovative ways bringing together biologists, computer scientists and engineers to apply this knowledge and solve real-world problems. "What Can Evolution Do for You" and "Hyenas Rule!" are the first of these exhibits at MSU.

"Evolution happens around us every day - it's not just something that happened in the past. Diseases develop resistance to antibiotics. Computer viruses change nearly every day, making antiviral software quickly out-of-date," said Erik Goodman, BEACON Center director and MSU professor of electrical and computer engineering. "The biological world is full of complex interactions and data and BEACON unites evolutionary biologists and computer scientists more closely than ever before."

### From hyenas to robots?

In the natural world, only the fittest survive. While competing for food against lions, hyenas have evolved to survive by working cooperatively and forming coalition. "Hyenas Rule!" explores the evolutionary behavior of hyena in their pursuit of survival.

The exhibit pairs the evolutionary biology and behavior research of MSU professor and MSU Museum adjunct curator Kay Holekamp and Risto Miikkulainen, who studies neural networks and artificial intelligence at the University of Texas at Austin.

By studying communication and cooperation among hyenas, BEACON scientists hope someday to be able to program robots to perform similar behaviors. What if robots could come together to accomplish complex tasks when necessary?

BEACON planners expect the exhibits to be developed and circulated around the partner universities as well as other learning centers in an effort to help advance public understanding of science.

"Our museum is a great point of intersection between the complex, innovative work going on in university research labs, and the students, tour groups, community members and other people who visit us each day," said Gary Morgan, MSU Museum director. "We can bring ideas alive and excite minds about what is truly ground-breaking and life-changing, but all too often, is not well understood outside of those labs."

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### Related Links

- [MSU Museum](http://museum.msu.edu/)
- [BEACON Center for the Study of Evolution in Action](http://beacon-center.org/)
- [Kay Holekamp Laboratory, MSU](http://www.hyenas.zoology.msu.edu/)
- [Risto Miikkulainen, University of Texas](http://www.cs.utexas.edu/~risto/)

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