Synthetic genetic clock tracks temperature changes

Genetic systems run like clockwork, attuned to temperature, time of day and many other factors as they regulate living organisms. Scientists at Rice University and the University of Houston have opened a window onto one aspect of the process that has confounded researchers for decades: the mechanism by which genetic regulators adjust to changing temperature.

Until now, synthetic biologists have not been able to duplicate this marvel, but Rice biochemist Matthew Bennett and his team developed a robust synthetic genetic clock that allows Escherichia coli bacteria to accurately keep time in a wide temperature range. The clock, which regulates the production of proteins, does not speed up or slow down with changing temperatures, and offers one possible solution to a problem that has hindered the advance of synthetic biology.

Read the full, original story: Synthetic genetic clock checks the thermometer