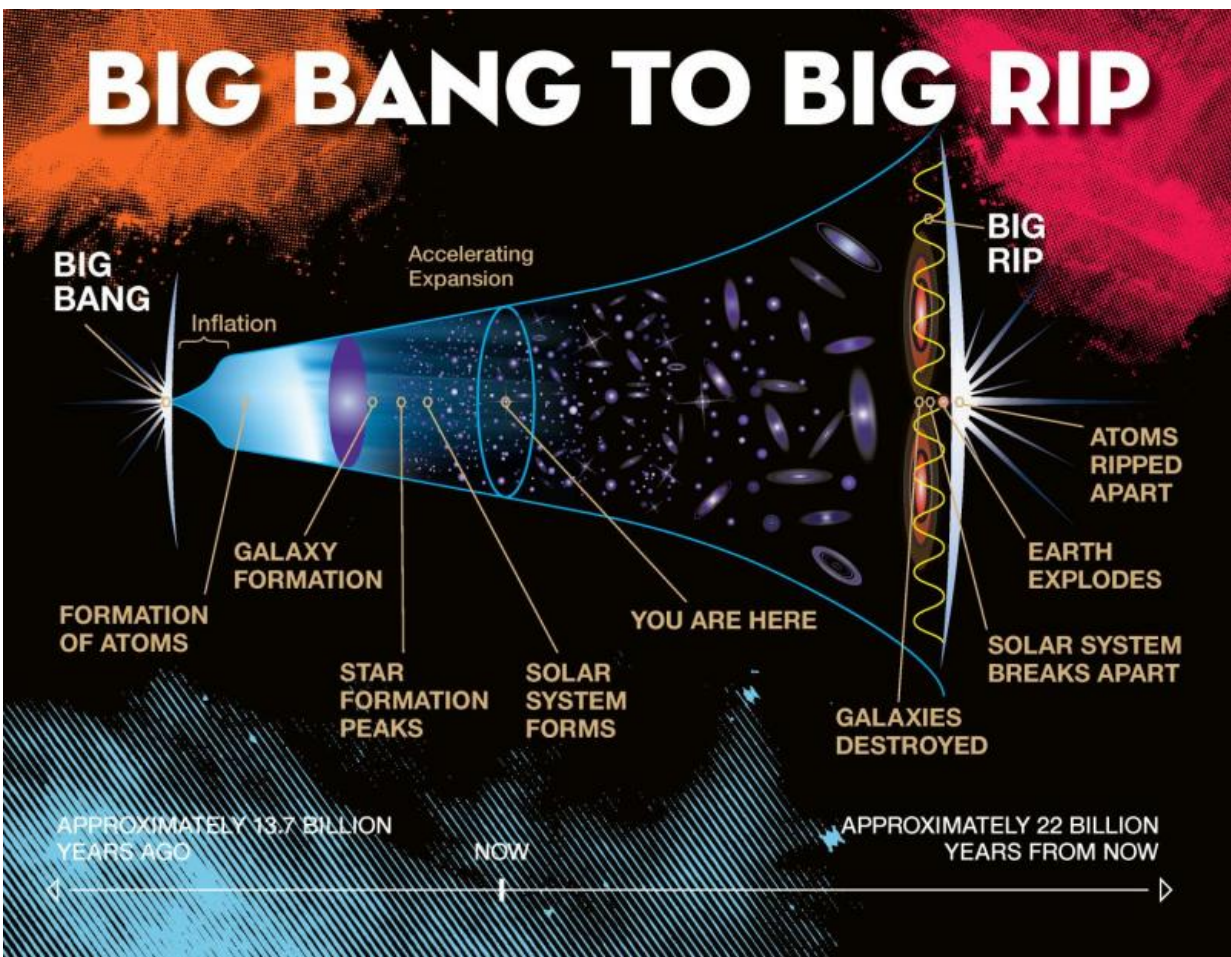


# Best of Last Week – A less crowded universe, antibiotics altering child development and reducing rumination

July 6 2015, by Bob Yirka



A time line of life of the universe that ends in a Big Rip. Credit: Jeremy Teaford, Vanderbilt University

(Phys.org)—It was a pretty big week for space science as researchers at Vanderbilt University unveiled [a new model of cosmic stickiness that favors a "Big Rip" demise of the universe](#)—they have found a way to mathematically bridge the gap between relativity and the classic notion of viscosity. Another team, this one working at Michigan State University, has concluded that [we are not alone—but the universe may be less crowded than we think](#); they found evidence that suggests there might be fewer galaxies out further in the universe than has been thought. Also, astronomers at the University of Manchester are predicting [fireworks from a close encounter of the stellar kind](#) as a pulsar moving around a companion star is set to plunge through a disk of gas and dust setting off a burst of emissions.

It was also a good week for technology development as the Institute of Physics announced that researchers had developed [snake skin-inspired surfaces that smashed records, providing 40 percent friction reduction](#)—all under dry conditions. Researchers at MIT unveiled [a system that fixes bugs by importing functionality from other programs—without access to source code](#)—called CodePhage. The system can even repair programs in other languages. Another team at MIT announced that they had built [a quantum-dot spectrometer that is small enough to function within a smartphone](#)—paving the way for creating applications able to detect such things as skin problems, pollution levels or problems with food.

Biology research made news last week, as an international team of researchers found that [an Old World monkey had a tiny, complex brain](#)—CT scans of a fifteen-million-year-old skull found in Kenya showed that the tiny creature had a brain that was far more complex than anyone would have thought, proving that size is not necessarily a factor for complexity. In a disturbing report, researchers at NYU Langone Medical Center found that [repeated courses of antibiotics may profoundly alter children's development](#)—mice, for example, gained weight, their bones

got bigger and their gut biome was altered. Also, researchers at the University of British Columbia reported that [a single-celled predator evolved a tiny, human-like eye](#)—likely as a means to help see prey better.

And finally, if you are someone who spends a lot of time hashing over past mistakes, a team of researchers with Stanford University reported that [walking in nature was found to reduce rumination](#)—so all you have to do is go for a nice stroll in the country to be nicer to yourself.

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