

MATHEMATICS

Celebrating
Einstein in Gardner

CELL BIOLOGY

How Forces Create
Organs—or Tumors

ENVIRONMENT

Climate and an
Inconvenient Ice

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SCIENTIFIC AMERICAN

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A Beacon from the Big Bang

It could reveal
insights about the
early universe and
maybe even the
“theory of
everything”



OCTOBER 2014

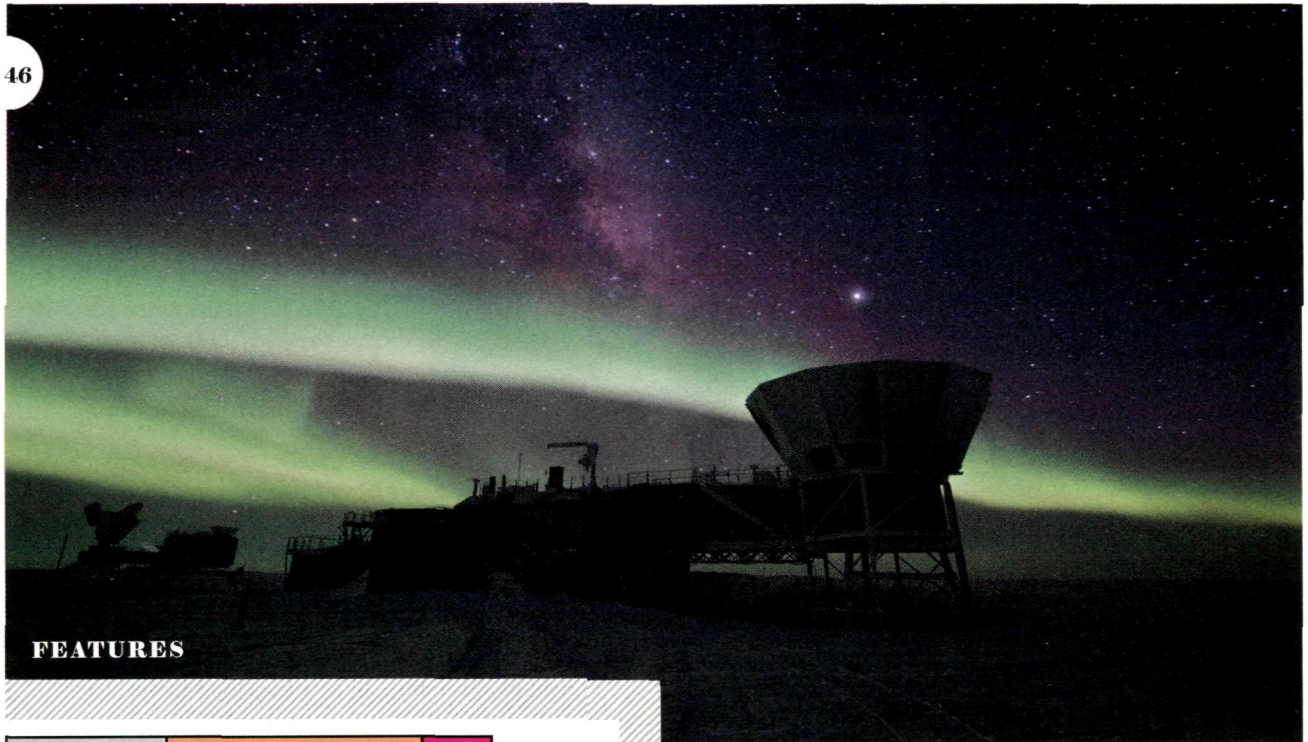


Earlier this year a group of astronomers announced a stunning discovery: evidence of gravitational waves that had originated in the first instant after the big bang. If the finding is confirmed, it will be "one of the most important in decades," according to physicist Lawrence M. Krauss. He explains what the waves might reveal about the birth of our universe—and others. Illustration by Mark Ross.

SCIENTIFIC AMERICAN

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A key challenge of science is to get the best ideas from diverse teams of people. *By Fred Gutierl*

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The discovery of gravitational waves from the early universe could solve many mysteries surrounding the first moments of time. If it's not a dud. *By Lawrence M. Krauss*

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The crop we rely on to wake up each morning is precariously homogeneous and beset by disease. Scientists are trying to shore it up with new genes. *By Hillary Rosner*

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What makes a cell become bone, brain or deadly tumor? A lot has to do with how much it gets pushed, pulled and twisted. *By Stefano Piccolo*

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Martin Gardner, the beloved author of *Scientific American's* Mathematical Games column, would have been 100 this year. He still inspires mathematicians and puzzle lovers alike. *By Colm Mulcahy and Dana Richards*

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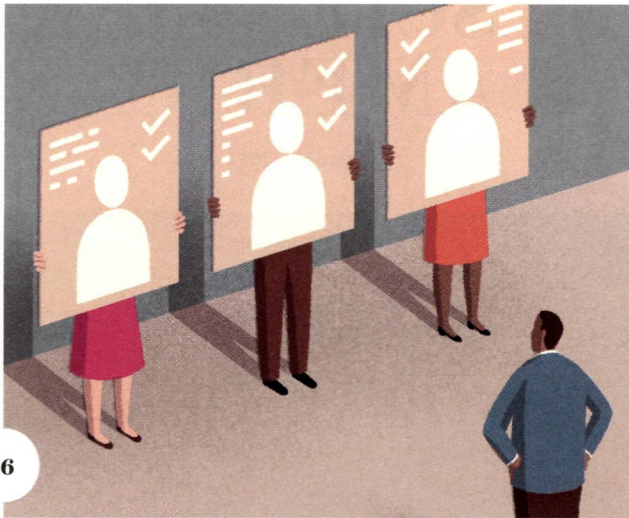
Space rocks tend to stick with their own kind. *By Clara Moskowitz*

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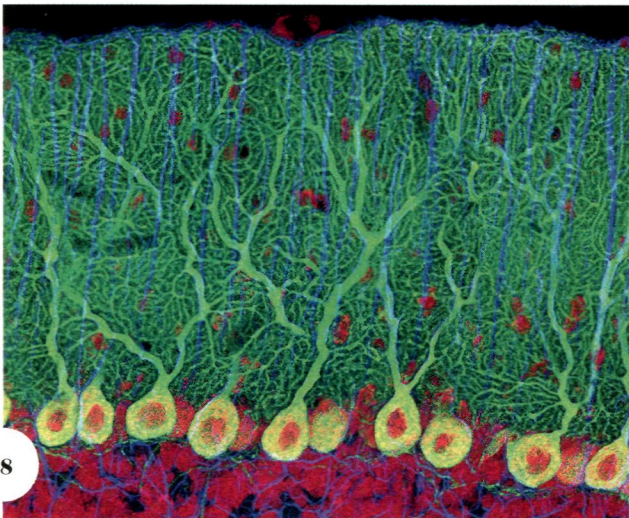
2014 Nobel Prize Winners

Scientific American covers this year's prizes, awarded in October, across all science categories, including who won and the impact of their award-winning contributions.

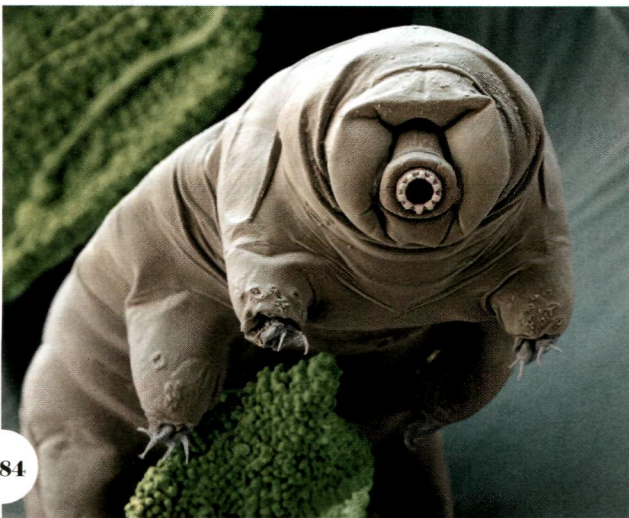
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