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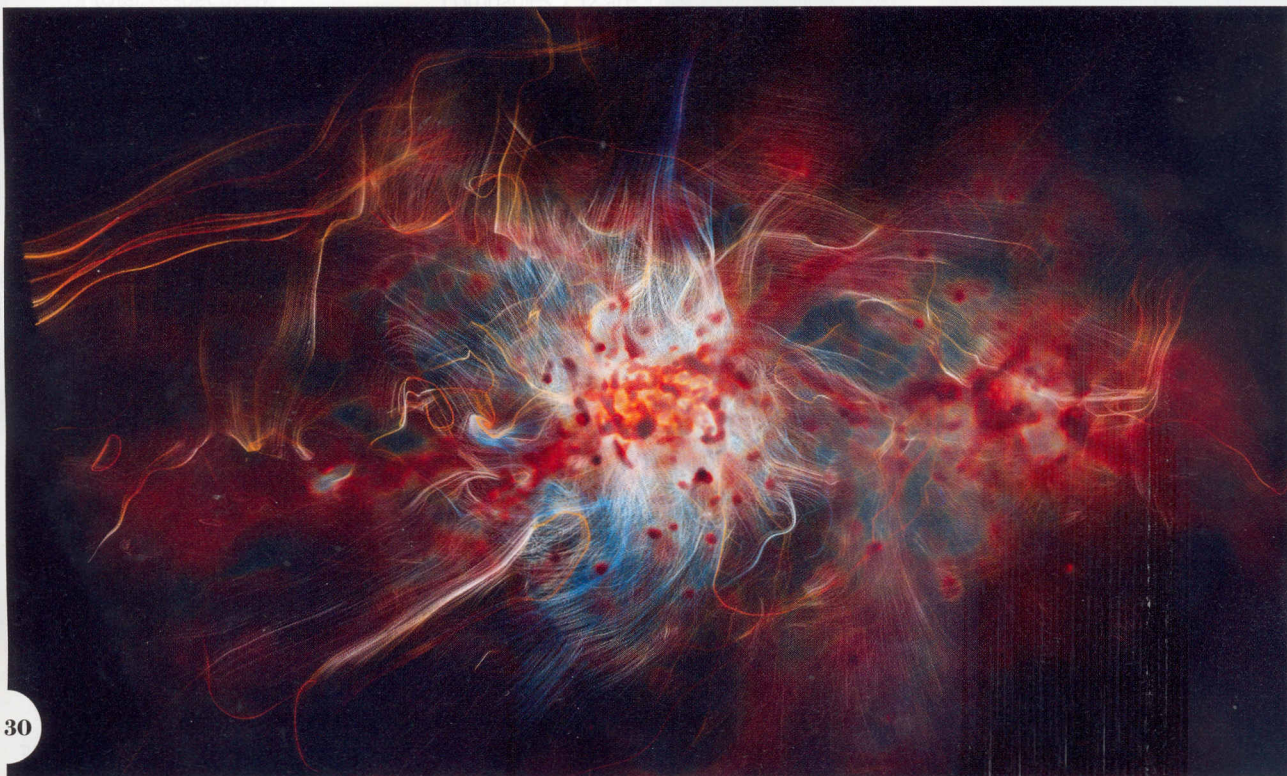
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Better renewable technologies will broaden energy supply, but radical innovations are needed to fundamentally change the energy game. SCIENTIFIC AMERICAN has unearthed seven exotic technologies that may be long shots to succeed, but if they do they could significantly improve energy security and efficiency. And the prototypes are just plain fascinating. Illustration by Chris Labrooy.

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Most of these technologies may fail, but the ones that don't could significantly alter how we generate energy and how efficiently we use it.

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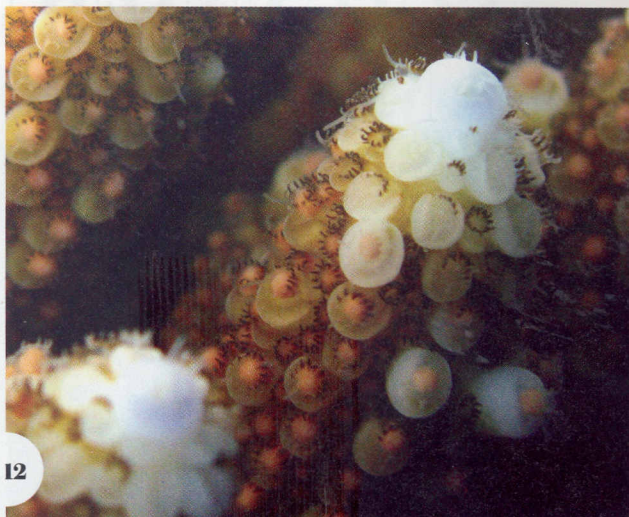
Medical imaging and radiation exposure.
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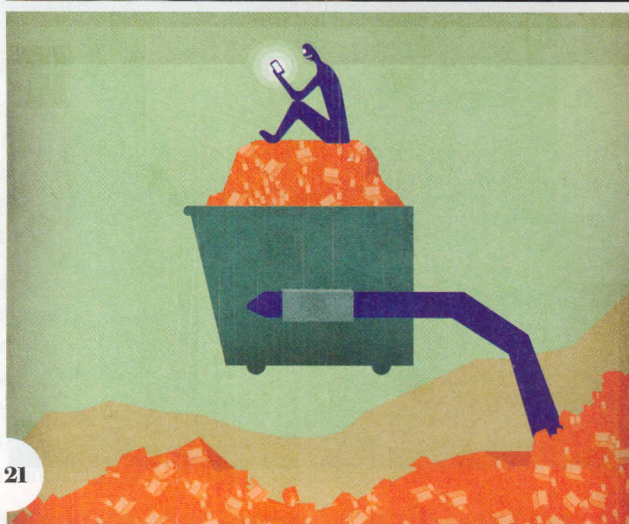
50 Years of Human Spaceflight

On April 12, 1961, cosmonaut Yuri Gagarin became the first human in space. What firsts will humankind realize in the coming decades of space exploration?

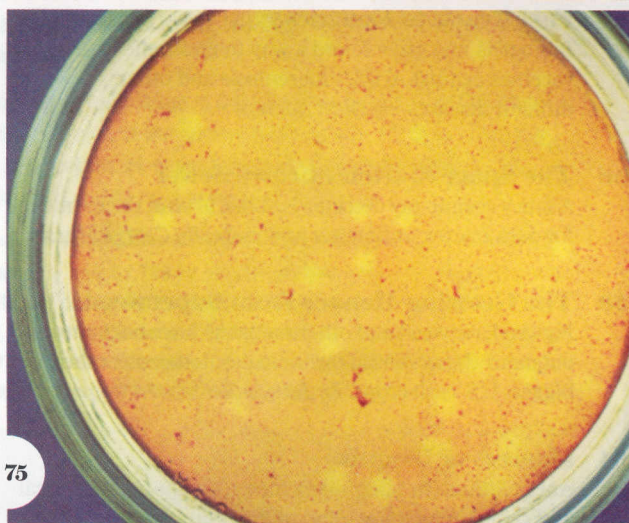
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