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ASTRONOMY

all the Light  
There Ever Was

TECHNOLOGY

Our Best  
Chance for Mars?

MEDICINE

Treatments for  
Cells on Fire

# SCIENTIFIC AMERICAN

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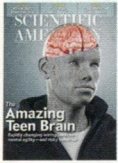
## The Amazing Teen Brain

Rapidly changing  
wiring leads to  
mental agility—  
and risky  
behavior

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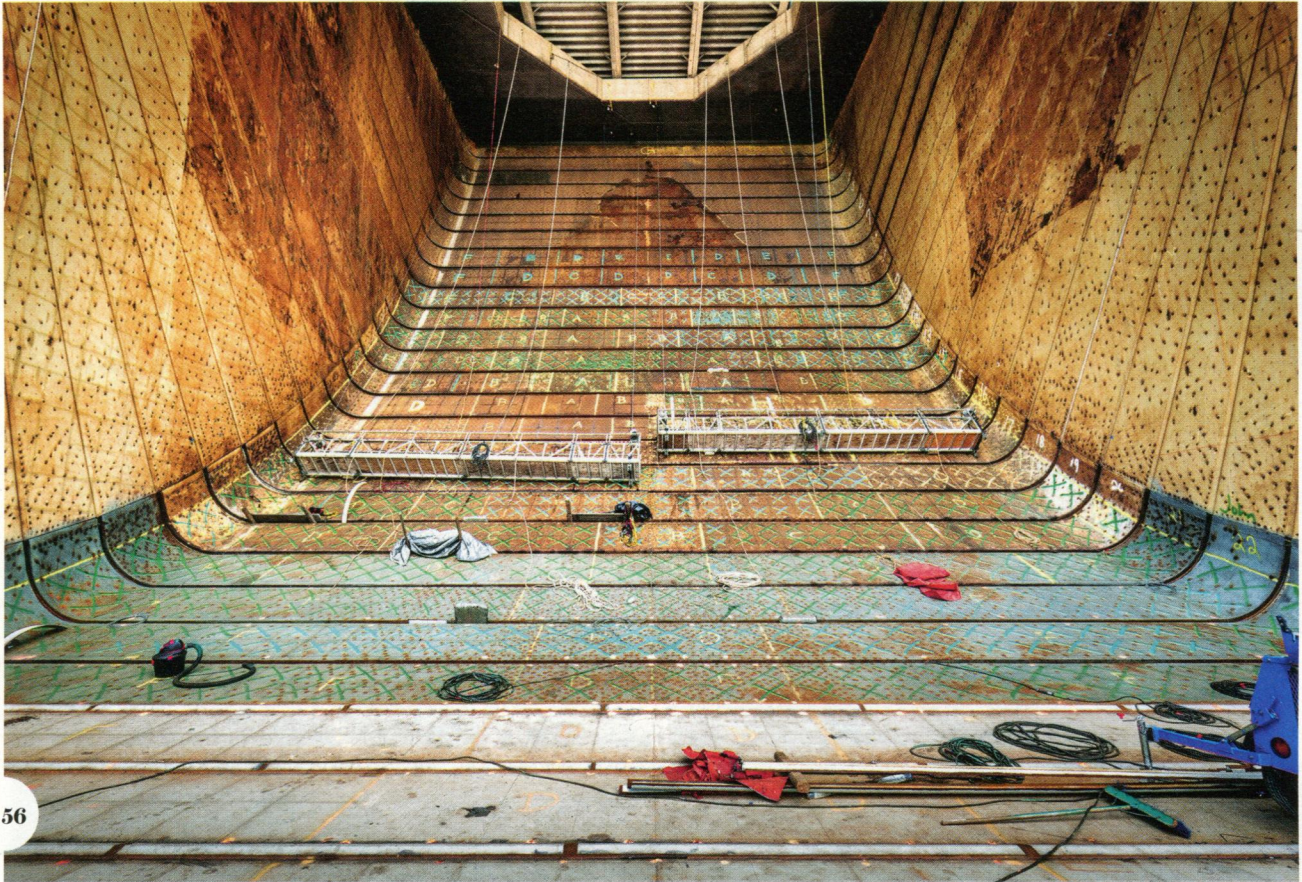




Teenage behavior is all over the map. For years neuroscientists (and parents) have been baffled as to why. Extensive MRI studies are revealing that underneath the triumphs and pitfalls of teen life are sweeping changes in the networking of brain regions. The new knowledge could help teens avoid mental illness and make smart choices for a bright future. Illustration by FOREAL.

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Why are adolescents prone to risky behavior and mental illnesses? And why are their minds so agile and teachable? It's all in their rapidly changing wiring.

*By Jay N. Giedd*

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Astronomers have started measuring background light that dates back to nearly the beginning of time. Now they are using it to trace the evolution of the cosmos.

*By Alberto Domínguez, Joel R. Primack and Trudy E. Bell*

### MEDICINE

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Scientists have discovered how cells trigger inflammation, a critical factor in ailments as diverse as atherosclerosis, Alzheimer's and fatty liver disease. New treatments may soon follow.

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Who knows whom matters, not only in human societies but among the animals as well.

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Forensic scientists are working to trace the identities of migrants who die trying to enter the U.S.

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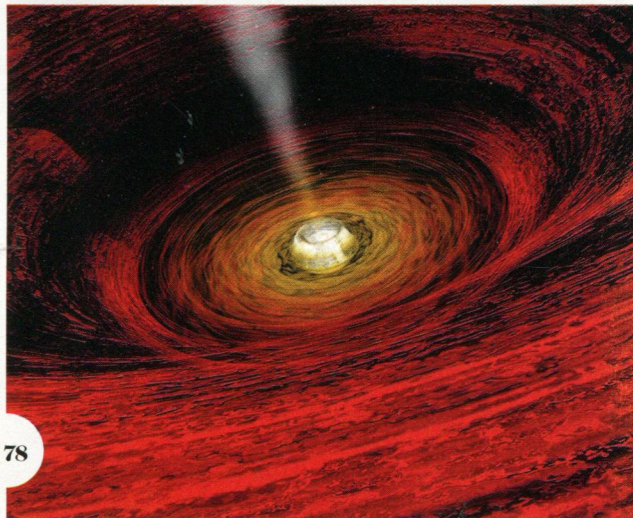
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