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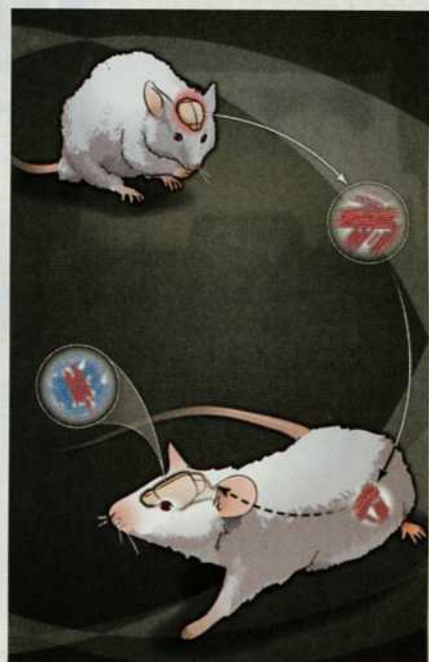
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COVER

Neck region of an emperor penguin (*Aptenodytes forsteri*), the skin of which was collected in 1929 on Richard E. Byrd's first Antarctic expedition. The ~36-million-year-old feathers of a giant fossil penguin from Peru indicate that feather shape evolved early in the penguin lineage, but that adult penguin coloration has shifted from a color palette that included reddish-browns and grays. See page 954.

Photo: *Julia Clarke, University of Texas at Austin*

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M. A. Killingsworth and D. T. Gilbert
The iPhone Hap App reveals that wandering thoughts lead to unhappiness.
>> *Science Podcast*

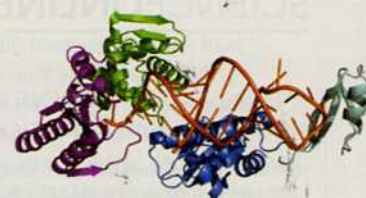
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The iron-bound oxygen intermediate responsible for many challenging biochemical oxidations has been thoroughly characterized.
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- 937 **How the CCA-Adding Enzyme Selects Adenine over Cytosine at Position 76 of tRNA**
B. Pan et al.
Crystal structures along the reaction pathway show that only adenine is correctly oriented for incorporation at transfer RNA position 76.

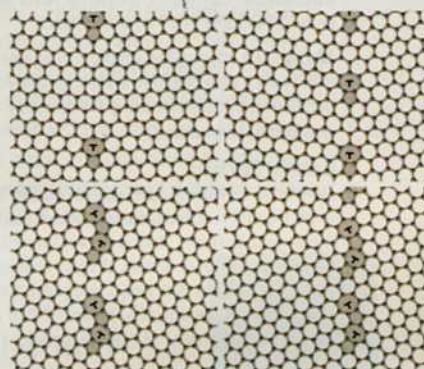
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N. Rea et al.
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- 946 **Anomalous Strength Characteristics of Tilt Grain Boundaries in Graphene**
R. Grantab et al.
Simulations indicate that high-angle boundaries can better accommodate strain and prevent failure in graphene.
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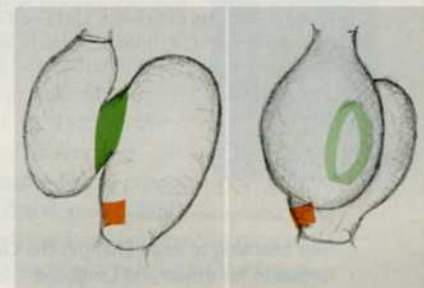
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