Cover
False-colored transmission electron microscopy image of avian H5N1 influenza virus isolated in Hong Kong (field-of-view width ~260 nm). A highly pathogenic influenza subtype is currently pandemic among the world’s wild birds, with serious outbreaks occurring in domestic poultry. Concern about the possibility of the virus evolving into a human pandemic threat has prompted controversial research on mutations that facilitate airborne infection between mammals. See the special section beginning on page 1521 for details of the scientific investigations and policy.

Image: Dr. Gopal Murti/Visuals Unlimited, Inc.
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During vesicle membrane fusion, straining of lipids at the edges of an extended contact zone may initiate fusion.

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A plant pathogen mechanically ruptures cell walls in rice leaves to enter the plant cells and initiate infection.

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The lac repressor slides along DNA in living cells, frequently passing its operator before binding.
Editor's Summary

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