

# ***AMERICAN SCIENTIST***

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## THE COVER

*In the past few years, virologists have discovered and characterized several families of giant viruses called, collectively, nucleo - cytoplasmic large DNA viruses (NCLDVs), or less formally, viruses. Physically huge compared to previously known viruses, the viruses possess unprecedentedly large genomes of 300 kilobase pairs to 1.2 million base pairs. Mimivirus, shown on the cover, is the biggest of them all (but perhaps not for long now that we know they are out there and are actively looking for them). Mimivirus is an amoebal pathogen that has been revealed by metagenomic studies to be among the most abundant of the ocean's biota. As James L. Van Etten explains in "Giant Viruses" (pages 304-311), these ancient biological entities are teaching us a great deal about the history and unsuspected diversity of viral forms. (images created by Campbell Strong and Gaël McGill, Digizyme Inc., using Molecular Maya.)*