

## This Week

- 100 Prospects Dim for Live AIDS Vaccine  
*Nathan Seppa*
- 100 Fake sperm fool female butterflies  
*Susan Milius*
- 101 Bacteria under ice: Some don't like it hot  
*Richard Monastersky*
- 101 Lab-grown bladders prove a success in dogs  
*John Travis*
- 102 Depression proves risky for ill hearts  
*Bruce Bower*
- 102 Tiny turnstile spits out solo photons  
*Peter Weiss*
- 102 Supersonic defects have the right stuff  
*Corinna Wu*
- 103 Feds plan battle against aliens  
*Laura Helmuth*
- 103 No beginning in sight for star formation  
*Ron Cowen*

## Articles

- 104 Sea Change in the Arctic  
An oceanful of clues points to climatic warming in the far North  
*Richard Monastersky*

## Letters

### Lava flow isn't hot news

It is difficult to accept as new information Alfred McEwen's assertion that the Elysium Basin of Mars was formed by lava ("Lava may have sculpted Martian plains," SN: 11/7/98, p. 295). Low-resolution images of Elysium from Viking identified lava flows there in the early 1990s (*Icarus* 88, 465-490; USGS Map I-2397).

*Mary Chapman*  
U.S. Geological Survey  
Flagstaff, Ariz.

The Elysium Basin region was indeed described as entirely covered by young flood lavas in the 1990 ICARUS paper by Jeff Plescia. However, most workers favored different interpretations, such as lake sediments on top of eroded lava (USGS Map I-2397). The new high-resolution images have dramatically confirmed Plescia's views.

*Alfred S. McEwen*  
University of Arizona  
Tucson, Ariz.

I disagree with part of McEwen's idea that the albedo markings represent plates of the lava flow that moved independently. I do agree that the material is almost certainly hundreds of meters thick, but I doubt it would have been liquid or that the entire region would have been active at the same time. For the features observed to be plates would require an exceedingly large (even by Martian standards) volume of lava to be liquid.

Additionally, it is unclear how sufficient material could have been erupted in the short time necessary. I had estimated that even with values such as occur in the Columbia Plateau, the time necessary would be too long to keep it all liquid to allow for the kind of conditions that McEwen is suggesting.

A simpler explanation is that these features are either dunes of windblown material or low areas filled in by windblown material.

*Jeff Plescia*  
U.S. Geological Survey  
Flagstaff, Ariz.

- 108 Pain, Pain, Go Away  
Snipping a nerve pathway in the spinal cord may bring instant relief  
*Sarah Simpson*

## Research Notes

- 107 AAAS  
Viruses—just a flush away?  
Why old immune systems get creaky
- 107 Earth Science  
Did El Niño make societies bloom?  
Global warming: No urban myth
- 110 Technology  
Chip uses less DNA and decodes quicker  
Yellow light warns of nerve-gas peril

## Departments

- 98 Books
- 99 Letters



**Cover:** A Canadian ship recently spent a year trapped amid Arctic sea ice, providing a base from which researchers could probe the ocean below and the skies above. The findings from this expedition and previous studies indicate that the Arctic climate is rapidly changing, perhaps as a result of greenhouse warming. **Page 104** (Photo: University of Washington)

Visit **SCIENCE NEWS ONLINE** for special features, columns, and references.

<http://www.sciencenews.org>

### Mission misdirection

In "Democratizing Science" (SN: 11/7/98, p. 298), Mr. Daryl Chubin of the National Science Foundation thinks a university should assess how it serves its local community and should, at minimum, consider making staff available to the public. I thought a university's mission is to educate students, including any qualifying local students. I know there are many complaints about staff already being distant from actual students; the more "available" the staff is outside the university, the less available it is for the primary function.

I also wonder how accurately the Center for Neighborhood Technology "can predict how much money a household in any half-square-mile zone will spend on transportation."

*Steve Sells*  
Wichita, Kan.

Send communications to:  
Editor, SCIENCE NEWS  
1719 N Street, N.W.  
Washington, D.C. 20036  
or [scinews@sciserv.org](mailto:scinews@sciserv.org)  
All letters subject to editing.