

Volume 155, No. 15, April 10, 1999

This Week

- Hidden Threats Take Toll in Amazon Richard Monastersky
- 228 Slow motion sets in when the light dims Laura Helmuth
- 229 Shutting off plaque's lifeline of blood Nathan Seppa
- 229 Radiation helps break down toxic waste Corinna Wu
- Electrons display their antisocial nature 230 Peter Weiss
- Social fears may raise alcoholism risk 230 Bruce Bower
- 230 The green genes don't get out much Susan Milius
- 231 Stopping leaks may boost cancer drugs John Travis
- 231 Big dust, little harm Janet Raloff

Articles

Computing at the Edge Capturing a flame's flicker, an ink jet's splatter, and other shifting shapes Ivars Peterson

236 **Making Sense of Scents** Scientists begin to decipher the alphabet of odors John Travis

Research Notes

239 Biology

A Greek god explains anemic mice Drugs tackle cancer in unexpected way

239 Science & Society

A call for more college science and math Whistle-blower wins back safety job Court puts Yellowstone deal on hold

Departments

226 **Books**

Letters



Cover: Novel computer methods used to model complex behavior at interfaces show promise for processing medical images, simulating crystal growth, and determining optimal routes. They can also depict splashing water, as shown here, and other effects on the movie screen. Page 232 (Image generated by R. Fedkiw and D. Wasson, ©1999 Arete Entertainment, http://www.areteis.com)

Visit Science News Online for special features, columns, and references.

http://www.sciencenews.org

Letters

Is attention to deficit the disorder?

Instead of trying to change the personalities of ADHD kids ("Kids' attention disorder attracts concern," SN: 11/28/98, p. 343), give them lots of chances to use their energy and urge them to explore and do things differently. Why should obsessive-compulsive autocrats be allowed to try to force everyone into the keyboarding and other routines that hyperactive brains find difficult to handle? We do need people capable of doing more than monotonous work in offices, stores, and factories. I wouldn't trade the varied experiences I've had in my life for any CEO's job.

Lee Hubbard Carlsbad, N.M.

A hidden danger in sex selection In your interesting article "It's a girl" (SN: 11/28/98, p. 350), the benefit of the technique described for those couples carrying sexlinked genetic disorders is understandable. However, your article does not point out the risks involved. Though only healthy births

have been reported, using a sorting machine that selects sperm with more DNA could cause an unexpected selection of sperm that have a diploid number of chromosomes. This in turn could lead to an increase in the chance of trisomy among the offspring. Selecting for a baby girl (a higher sperm DNA content) may increase the chance of Down's syndrome or Klinefelter's syndrome births, while selecting for a baby boy (a lower sperm DNA content) may increase the chance of a Turner's syndrome child. Sometimes it is better to wait for the sonogram or the birth before you paint the baby's room.

William B. Crymes Jr. Columbia, S.C.

Hygiene concerns

Meet the superbug" (SN: 12/12/98, p. 376), concerning the radiation-tolerant bacterium Deinococcus radiodurans, stops short of addressing a very serious issue. For years now, the food-processing industry has touted irradiation of food as the silver bullet against increasing problems of bacterial contamination in packaged food. Now, here's a

bacterium that can be found in animals' guts, can spoil food, and can tolerate massive radiation. If D. radiodurans started finding its way into our food, wouldn't it find irradiated food to be an ideal habitat?

Dick Dunn Hygiene, Colo.

Intercontinental drift

The piece on air-pollution drift across the Pacific Ocean ("Asian pollution drifts over North America," SN: 12/12/98, p. 374) was fascinating and raises several interesting questions about what travels on those winds besides dust and certain metals. What about biological pollution, for example? We know that storm winds were the vectors for the arrival of cattle egrets in the Caribbean and North America from Africa, and there is some evidence of insect, bacterial, and botanical life having gotten to the Caribbean the same way. Is anyone screening the trans-Pacific air currents for such pollutants? They can be quite harmful.

Thomas F. Norton Easton, Md.

APRIL 10, 1999

SCIENCE NEWS, VOL. 155

227