

The Weekly Newsmagazine of Science

Volume 155, No. 17, April 24, 1999

## This Week

- 260 **Eruptions Cleared Path for Dinosaurs** Richard Monastersky
- 260 Self cells ease Parkinson's in monkeys Nathan Seppa
- Souping up and other tricks produce satiety 261 Janet Raloff
- Farmer ants have bacterial farmhands 261 Susan Milius
- 262 African fossils flesh out humanity's past Bruce Bower
- Nutritionists debate soy's health benefits 262 Laura Helmuth
- 263 Do supernovas generate gamma-ray bursts? Ron Cowen
- 263 Superplastic metals stretch to a new low Corinna Wu

# Articles

Well-Done Research

New recipes for making seriously browned meats less of a cancer risk Janet Raloff

**Beyond Vancomycin** 

Understanding an antibiotic of last resort may lead to new weapons against deadly bacteria Corinna Wu

# **Research Notes**

267 Anthropology

Robust about-face Redrawing the human line

267 **Biology** 

A second living-fossil species? Long-sought migration trigger stinks Nuptial balloons: Size doesn't matter

**Biomedicine** 271

Drug combination slows colon cancer Antioxidants may limit key mutations Tomato compound fights cancer

271 Earth Science

Nuclear-monitoring system passes test Disappearing ice down south

# **Departments**

258 **Books** 

259 Letters



Cover: Grilling can leave meats with great flavor but a heavy dose of carcinogens. Researchers have created a collection of tasty recipes to either prevent those unhealthy compounds from forming or defuse their toxicity once they do appear. Page 264

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

http://www.sciencenews.org

# Letters

#### Go slow on antiaddiction drugs

I encourage a "proceed with caution" approach to the clinical use of gamma vinyl-GABA ("Nicotine addiction curbed by new drug," SN: 1/2/99, p. 11). I have been involved in the study, prevention, and treatment of addictions for nearly 20 years

An increased awareness of the genetic and neurobiological factors involved in the abuse (misuse) of, dependency on, and addiction to psychoactive drugs is the result of only the past 30 years of scientific research. These understandings are thus quite new and require much more research to better clarify our understanding and treatment of addiction.

Dan R. Gray Gladstone, Mo.

# Too hot to handle

**APRIL 24, 1999** 

You quote workers as saying that microbes are living "maybe at temperatures of 200° C or more" in the Pacific near the Juan de Fuca Ridge ("Life gets extreme in seafloor chimneys," SN: 1/2/99, p. 15).

Unless these microbes are constituted of something other than water, I find it very hard to credit this report because water boils at 100°C. Do we have any idea how life survives in water that hot?

Bill Bruehl Setauket, N.Y.

Water boils at 100°C only at sea level air pressure. Deep in the ocean, water boils at a much higher temperature because the pressure is much greater. –R. Monastersky

## A cheater never tells

Kids quickly learn the "shortcut" method of doing exercises like 8 + 10 - 10 and 8 + 10 - 8 ("Math discoveries catch kids unawares," SN: 1/2/99, p. 5), especially when given concentrated practice in problems of this type. But the kids tell the researchers that they use calculation rather than shortcuts. From this, the researchers apparently infer that children use such shortcuts without realizing it. In my experience, kids realize they're using shortcuts but won't admit it to an adult because they view such shortcuts as cheating.

Jamesine E. Friend Shelby, N.C.

## Truth as strange as fiction

As a person who grew up reading science fiction, I am not much surprised at what can be done with increased memory, speed, and sophisticated software ("Agents of cooperation," SN: 1/2/99, p. 12). Perhaps the programmers and researchers working with the 'mobile agents" should consider the precautions displayed by the scientists who installed Isaac Asimov's Three Laws of Robotics in the positronic brains of their robots.

The mobile agents also bring to mind a story by Harlan Ellison, "I Have No Mouth, and I Must Scream!"

Kaare B. Høst Port Charlotte, Fla.

# The dye is past

A "new" fabric-dyeing process ("Metal grains dye fabrics in muted hues," SN: 1/2/99, p. 11)? Obviously, William Todd hasn't heard of the concept of mordanting, the soaking of fibers in metal-ion solutions as a precursor to dyeing with natural dyes. Iron, copper, and aluminum salts have been used as mordants for centuries (in the case of iron, millennia).

Betty Creegan . Shiloh, Ill.

SCIENCE NEWS, VOL. 155

259