

The Weekly Newsmagazine of Science

Volume 156, No. 16, October 16, 1999

## **This Week**

244 Higher Primates May Have Asian Root Bruce Bower

244 Monkeyflowers hint at evolutionary leaps Susan Milius

245 Fertilizer: Hiding a toxic pollutant?

Janet Raloff

245 Kuiper belt may hold fragments of Pluto Ron Cowen

246 Plastic plants may become plastics plants
Oliver Baker

246 Zip Code plan for proteins wins Nobel John Travis

247 Physics prize takes another tour de force Peter Weiss

247 Chemistry Nobel spotlights fast reactions Ivars Peterson

## **Articles**

249 Built to Scale
Scientists peel back the wrapper
on life's packaging principles
Peter Weiss

#### 252 Designer Estrogens

Getting all the benefits, few of the risks Damaris Christensen

## **Research Notes**

254 Archaeology

Tool time in the Stone Age Well-aged slabs of art

255 Biomedicine

Car safety tied to vision testing, clarity Photodynamic treatment used on eyes

255 Mathematics

Optimal paths to atomic clusters Pi by the billions

# **Departments**

242 Books

243 Letters



**COVET:** In tiny *Trillium* (inset) and towering giants alike, nutrients flow in plants according to complex patterns called fractals. Animals of all sizes also harbor fractal-like circulatory networks. This universal architecture shapes all of life, a new theory says. As inner networks vary with body size, so do metabolism, life span, and other traits. **Page 249** (Photo effects: Design Imaging)

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

http://www.sciencenews.org

# Letters

Tea and an apple chestnut

"Tea time for T cells" (SN: 8/21/99, p. 127) mentioned that alkylamines from teas, wines, and apples stimulate T cells. The scientists are launching a study to examine whether tea stimulates the activity of the gamma-delta T cells to bolster overall immunity. Who knows, they may even verify that an apple a day keeps the doctor away!

Don G. Beattie Commerce, Mich.

#### Dirty secrets?

The article "Modern hygiene's dirty tricks" (SN: 8/14/99, p. 108) reports that hay fever is less common among farm children than among urban children or rural children who don't live on farms. I wonder if the results are not skewed by "survival of the fittest." Wouldn't sufferers of hay fever (including their progeny with similar genetic dispositions) seek relief in nonfarm areas? People not affected by the scourge (and their progeny) probably continued to find survivable conditions in farmland areas. I, myself a suf-

ferer of hay fever, seek to avoid farmlands at all costs.

Richard V. DeGruccio Elk Grove, Calif.

I suggest that our immune systems, like our muscles, need to be exercised to be effective. Though this is anecdotal, I've noticed that when I've been a farmer, I have had far less sickness than when I've lived in town.

Jim Adams Louisa, Va.

Basing the hygiene hypothesis on the observation that cleaner societies (i.e., industrialized countries) have higher asthma rates raises some questions. In particular, within a single industrialized country, the United States, asthma rates are far higher in poor communities. It is usually thought that poor housing, higher pollution levels, and so forth may account for this: In short, these are dirtier places to live. Yet this thinking runs counter to the hygiene hypothesis and is not discussed in the article.

Doug Brugge Tufts University School of Medicine Boston. Mass. Researchers who support the hygiene hypothesis believe that the particular types of germs to which children are exposed are crucial. For example, suggests Graham Rook, "poor people living in inner cities on concrete will not encounter the organisms that are common in soil and untreated water... that are working in animal models of allergy and in our clinical trials." Rook argues that "the high incidence [of asthma] in inner cities is good evidence that the childhood virus infections are not protective."

—S. Carpenter

I was angered and disappointed by your selection of photographs to accompany the cover article. Sexism appears to be alive and well. I believe a picture of boys and girls playing in a sandbox or making mud pies would have been a much better, nonviolent illustration for the cover of the magazine. As for the picture of the 1950s housewife in a spotless kitchen, some of us have worked very hard to overcome the stereotypes of the 1950s and do not appreciate reminders that we have to continue to fight these battles daily.

Ann S. Viksnins Mendota Heights, Minn.

OCTOBER 16, 1999

SCIENCE NEWS, VOL. 156

©

243