Nielsen Challenges to Science

**NEWS & COMMENT**

- NIH Tunes Up Peer Review
- Women in Science: U.K. Panel Floats a Plan
- Canada's Science Budget: KAON Out, Space Station Squeezed
- Clinical Research: Panel Backs Pregnant Women in Trials
- Chronobiologists Out of Sync Over Light Therapy Patents
- Program Gives Some States a Head Start in Bid for Grants

**RESEARCH NEWS**

- Molecular Imprints Make a Mark
- A Game of Molecular Tennis, Anyone?

**POLICY FORUM**

- Active Intervention and Conservation: Africa's Pachyderm Problem
  - J. Berger and C. Cunningham

**PERSPECTIVES**

- Fires, Atmospheric Chemistry, and the Ozone Layer
  - R. J. Cicerone

- Precise Development from Imprecise Rules
  - M. P. Stryker

**ARTICLE**

- Paleomagnetic Tests of Pacific Plate Reconstructions and Implications for Motion Between Hotspots
  - G. D. Acton and R. G. Gordon

**DEPARTMENTS**

**THIS WEEK IN SCIENCE**

**EDITORIAL**

**LETTERS**

- Volunteers and the NBS: T. L. Root and P. Alpert
  - Research on Chemical Demilitarization: J. F. Bunnell
  - Indirect Costs of Pesticide Use: P. Karlovsky

**SCIENCESCOPE**

- Dialing Up Undersea Data—Long Distance
- AAAS Provides Its Own San Francisco Quake

**RANDOM SAMPLES**

- German Science Adviser Gets the Boot
- Indian Sea Turtles in Peril
- One Man's Poison—Another's Fertilizer
- World Science

**BOOK REVIEWS**

- The Billion-Dollar Molecule, reviewed by S. Panem
- Travelling Around the Human Genome, I. W. Craig
- Memory, Amnesia, and the Hippocampal System, D. P. Kimble
- Liquid Crystalline Polymers, S. I. Stupp
- Vignettes
- Books Received

**PRODUCTS & MATERIALS**
Model of the enzyme acetylcholinesterase with electrostatic lines of force (yellow) emanating from the interior of the active site (buried). The field lines exit mostly through the main entrance (blue atoms) or through a channel ("back door") to the active site. A molecular dynamics simulation shows transient opening of this back door (top), which may facilitate the entry or exit of substrate, products, or solvent. See page 1276. [Graphics: Michael K. Gilson, using Insight II software (Biosym)]