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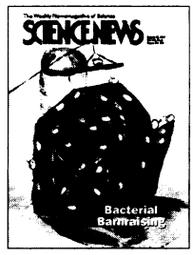
This Week

Research Notes

Articles

Cover: Bacteria join forces to accomplish feats they could not achieve as individuals. A system shared by diverse bacterial species allows the microorganisms to sense their population density and coordinate their behavior in response. This ability enables them to live within a host plant or animal. (Illustration: Laurie Painter)



Departments

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Letters

Ticky point

I greatly admire SCIENCE NEWS and have come to depend upon its coverage. In return, I feel it's the responsibility of us, your readers, to inform you of the rare errors that appear in your text. Thus, as others undoubtedly will remind you, ticks are arachnids, not insects ("Thieving bacteria use hot goods in hideout," SN: 7/12/97, p. 23).

Annette Aiello
Staff Scientist
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Response to change spans theories

In "Humanity's Imprecision Vision" (SN: 7/12/97, p. 26), you differentiate between theories that relate the state of our brain (or mind) to conditions or challenges that we as a species faced during our evolution, and the proposals of R. Potts, which stress the uncertainty of our past environment and its effect on the evolution of our brain.

Isn't the ability to respond to changing conditions just another characteristic of our brain that has developed as a result of the challenge of a variable environment? Is the need to respond to a changing environment fundamentally different from the need to recognize the face of a friend? Is the process that leads to "genes and behaviors that made possible resilient, innovative adaptations to new habitats" fundamentally different from the process that leads to many of the other characteristics of our brain?

I think not.

Jerry F. Kerrisk
Santa Fe, N.M.

Beta rays' role in restenosis?

I have two comments on "Unclogging arteries? Radiation Helps" (SN: 6/14/97, p. 364).

First, I believe you mean iridium-192, not iridium-92 (which doesn't exist).

Second, iridium-192 not only generates gamma rays, it first emits an energetic electron via beta decay. Characteristic energies of both beta electrons and gamma rays are on the order of 0.3 megaelectronvolt. However, the range of the beta electron in tissue is on the order of 1,000 microns, while that of the gamma ray is about 10 centimeters.

Therefore, given the local nature of the procedure, should we not conclude that the inhibition of restenosis is due to short-range beta, rather than gamma, radiation?

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CORRECTION

"Galileo Explores the Galilean Moons" (SN: 8/9/97, p. 90) incorrectly reports that the heat pouring out of Jupiter's moon Io is enough to have melted it 4,000 times. That figure should be 40.