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Letters

Point to consider

Your article on the shape of raindrops ("Rain-
drop Oscillations," SN: 3/2/85, p. 136) intrigued
me. As a skydiver who has encountered rain-
drops in freefall, I always thought the stinging
sensation on my face was caused by hitting
them on their pointy ends.

Don Wright
Erwinna, Pa.

Breaking down bacterial DNA

"Do kinks and twists denote DNA damage?"
(SN: 3/16/85, p. 166) is of great interest. The
quinolone antibacterial agents, used often in
urinary tract infections, affect susceptible bacte-
ria by inhibiting DNA synthesis. This is ac-
complished by inhibiting the adenosine
triphosphate-dependent DNA supercoiling
reaction catalyzed by DNA gyrase, by inhibiting
the relaxation of supercoiled DNA and by pro-
moting double-stranded DNA breakage. Thus

This Week

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Articles

- 250 Source Terms: The New Reactor Safety Debate
Cover: Five years after a catastrophic accident crippled the Three
Mile Island-2 reactor, its cooling towers, shown here, still stand idle.
Among the more important lessons learned in that accident was
how poorly reactor-accident analysts had predicted radioactive
releases. Attempts to understand why the original estimates were
so wrong have ushered in a major reevaluation of one of the more
fundamental risk factors underpinning nuclear regulations.
(Photo: GPU Nuclear Corp.)



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are changes in DNA structure of therapeutic
importance. New quinolones, such as ofloxacin,
which work by the same mechanisms as
older drugs but are 100-fold more active, look
promising to medical clinicians.

Z.L.G. Stein
Robert L. Barkin
Assistant Directors of Pharmacy
Faculty, Dept. of Pharmacology
Rush-Presbyterian-St. Luke's Medical Center
Chicago, Ill.

Impromptu bounces

The article on the Soviet planetary plans was
fascinating, but I must nitpick a small item it
contained about the U.S. Surveyor program
("Ambitious Soviet planetary plans presented
at U.S. meeting," SN: 3/23/85, p. 182).

Surveyor 3 did no deliberate hopping. Its ver-
nier descent engines failed to shut down as

scheduled immediately prior to lunar
touchdown, with the result that it took a couple
of long bounces down the inner slopes of the
crater later visited by Apollo 12. It was Surveyor
6 that was relaunched for a 2.5-meter flight,
after returning nearly 13,000 close-up pictures
of the lunar surface. The spacecraft systems
continued to function perfectly afterwards, and
more than 17,000 post-hop pictures were re-
turned.

R. M. Batson, Chief
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