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# **XIEKE NE**

#### This Week

52 When Earth Tipped, Life Went Wild 53 Internet congestion stirs up data storms HIV protein prepares virus' next victims 53 Weak flames ignite hope for clean engines 54 54 Wordy tots ignore some speech sounds 55 Jellies and their twinkling protein 55 Secrets underlie lethal heart condition

#### **Research Notes**

Agriculture 56 Biology 56 Biomedicine 60 60 Earth Science

#### **Articles**

A Soil Story 58

Cover: Small roundworms known as nematodes can be seen inside the head of this termite. Bacteria that live symbiotically in the nematodes' intestine produce an unusual cornucopia of chemicals, including novel antibiotics and insecticides, as well as an enzyme that can make an insect glow in the dark. (Photo: George Poinar)

From Microdevice to Smart Dust 62

### **Departments**

**Books** 51 Letters



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# Letters

#### Science talent redirected

"Is Science Talent Squandered?" (SN: 5/31/97, p. 338) sent me into a reverie of my precollege days. Having achieved, at 10 years of age, minor celebrity status in NATION'S BUSI-NESS by inventing a "new" cotton picker, hav-ing burned holes in my parents' basement ceiling with my huge Gilbert chemistry set, and having been given a key to the high school lab to conduct my own experiments on weekends, I knew I would be a scientist.

Then came college and the public denigration (in an introductory chemistry class) of my poetic expression of the practical application of combustion. Literary and artistic teachers and friends enjoyed my "weird' presentation, so I joined their ranks instead, achieving modest adult recognition as a writer but still finding my real reading interest in science.

If I had found a Carl Sagan some 40 years

ago, I might be in a different college in my university today, but perhaps with different regrets.

F. Richard Thomas Professor of American Thought and Language Michigan State University East Lansing, Mich.

Without question, many university science faculty are unmotivated as teachers and unintentionally drive many of the most promising students from the field. Your article lends one more vote to the idea of having college faculty who are promoted and tenured for their teaching abilities, while those who are gifted at research but not teaching are kept from the classroom.

Richard H. Browne Dallas, Texas

Starting with the title, your article assumes it is generally a bad thing when talented young people leave science. I am not so sure.

Would the winners who "left" have been happier as scientists? Is a smart, creative businessman less helpful than a smart, creative scientist?

Seth Roberts Associate Professor of Psychology University of Čalifornia Berkeley, Calif.

Your article rang sadly true. In school, counselors discouraged me from careers in science or engineering. In college, professors were openly hostile toward women entering "their turf." On the job, I was a novelty in the lab and was complimented on being "just like a real engineer.'

Even in my current job, while I hold five patents in communications technology, I am pressured to do more marketing-oriented work and less technical work. I only hope things will be better for my daughter because

Letters continued on p. 57

JULY 26, 1997 SCIENCE NEWS, VOL. 152

51

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of the efforts of those like me who hang in there in science and engineering.

Thanks for a great article on an important

Mary Rita Otto Naperville, Ill.

The study ignores other aspects of science success besides research, such as journalism, writing, nonphysician medicine, technical support, and teaching (in grades K-12 and nonresearch institutions).

As an STS semifinalist, I would fail miserably as a science success, yet I believe I have had a big impact on young scientists—I have three children. If the STS is for the sole purpose of generating research scientists, why not make this goal part of its charter?

Linda Bisbee Englewood, Colo.

As an STS winner, scientist, and development specialist, I am puzzled and somewhat amused at the conclusion that science talent is "squandered" when scientists leave the lab (or the field or the computer). Who says?

I agree that undergraduate science education needs much improvement, but I think there is another important reason that students turn off the straight and narrow science path: It's simply the outcome of putting questioning, tinkering minds in a sea of options.

Andrea J. Yates Jakarta, Indonesia

I received honorable mention in the STS for the school year 1953-1954. I recall with

some embarrassment my determination at age 16 to spend 4 years in college chemistry and then return to the real world and discover new elements, as Lavoisier and the heroic Marie Curie did. The interminable labs, the trivial stirrings and weighings, thermodynamics, oxidation-reduction equations, and, worst of all, lab reports convinced me to change my major to engineering so I could produce useful, concrete things more immediately.

I think it's possible that the study missed the most important factor in such decisions, namely age. A lot of growing up happens between 16 and 22.

> William E. Drissel President CyberScribe Associates, Inc. Grand Prairie, Texas

I agree with much of what the STS article says, but it failed to look at the bright side as well. These young men and women have developed critical thinking skills and an understanding of science. These skills will carry over into whatever field they choose. If they reach a position of making decisions, they may remember their days as STS scientists and vote for increased science funding.

Walter H. Sakai Professor of Biology Santa Monica College Santa Monica, Calif.

The goal of teaching science should not be to make everyone a scientist but to enable everyone to use the knowledge of science in

> James F. Jackson Carlisle, Ind.

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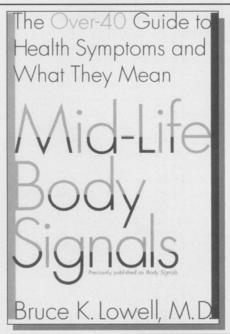
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