>>NEWSMAKERS

How management of research programs might change:

Y.H.: We are [examining] the function played by a program manager. Traditionally, once [an administrator] fixed a budget the work was finished. We need someone … to make sure something is really moving ahead.

On getting more women in science and technology:

Y.H.: I am [the first woman] in a permanent position at the CSTP. The most important thing [about having] women … in the decision-making sphere is that they may bring in new thinking. What I will try to do is promote women … putting pressure on the universities, but the same should be done in industry.

FINDINGS

Weak Immune System Toughens Malaria Parasite

The arms race between pathogens and their host can heat up even if the host is a wimp. An experimental evolution study in mice has found that malaria parasites infecting rodents with weakened immune systems evolve increased virulence.

Virulence boost. Researchers saw parasite evolution in immunocompromised mice.

Andrew Read and Victoria Barclay of Pennsylvania State University, University Park, tested this by first giving a pair of mice antibodies that disabled a key immune molecule, the CD4 receptor, and then infecting them with a mouse malaria parasite. Then, each week for 21 weeks, they infected a new pair of immunocompromised mice with parasites taken from the immunocompromised mice infected the week before. Finally, to compare the virulence of each week's parasites, they infected healthy mice with the pathogens; parasites from week 21 grew faster and caused more anemia and weight loss than parasites from week 10, Read reported last month at Evolution 2013 in Snowbird, Utah.

Read is concerned that the rise in number of HIV-infected and other immunocompromised people might hasten the evolution of pathogens into deadlier forms. Although Read's mouse experiment "is a very elegant and sobering study," says Daniel Bolnick, an evolutionary biologist at the University of Texas, Austin, "we certainly can't take it for granted that biological patterns in mice can be extrapolated to humans."

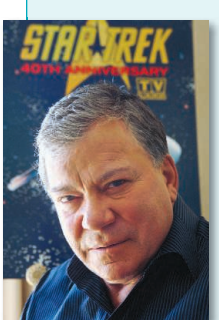
Random Sample

Name Those Moons

Pluto fans should hail planetary scientist Mark Showalter of the SETI Institute in Mountain View, California. Not only did he sign a petition opposing Pluto's demotion from planet to dwarf planet, but he also discovered two new moons circling the far-off world, thereby boosting its planetary cred.

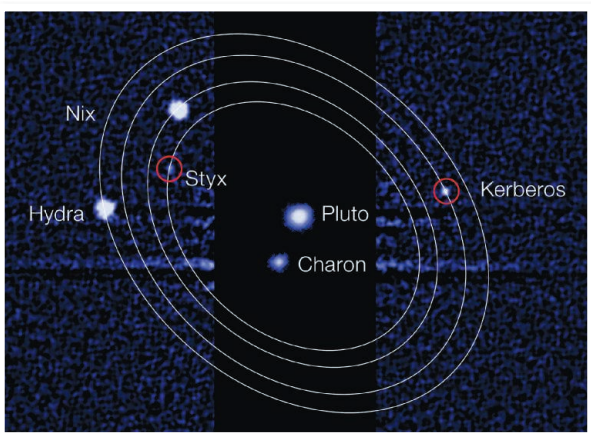
But what to name the new satellites? "I got hundreds of e-mails from people I don't know," Showalter says. So planetary scientist Alan Stern of the Southwest Research Institute in Boulder, Colorado, suggested an Internet poll. Names had to refer to the underworld, as Pluto was its mythological god.

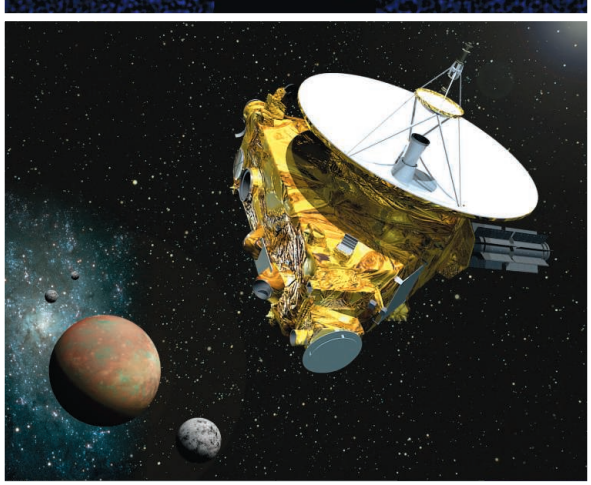
With 450,324 votes cast, the winner was one that actor William Shatner championed: Vulcan, home of *Star Trek*'s Mr. Spock. Runners-up included Cerberus, Styx, and Persephone.



Showalter's team chose the top two, but officials vetoed Vulcan, the Roman god of fire and forges. "Pluto and Vulcan didn't cross paths much," Showalter admits. Cerberus, Pluto's three-headed dog, is already the name of an asteroid but received approval in its Greek form, Kerberos. Styx also made the grade as the goddess of the river dividing the world of the living from the underworld. Showalter says: "I am very happy with the outcome."

Kerberos and Styx join Pluto's three other moons, Charon, Nix, and Hydra, the last named for a monster whose nine heads signify that many consider Pluto to be the ninth planet. Indeed, the emblem for NASA's Pluto-bound New Horizons spacecraft (bottom right) is nine-sided, and Showalter says that he'd be "almost shocked" if it doesn't find yet more moons when it reaches its target in 2015.





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