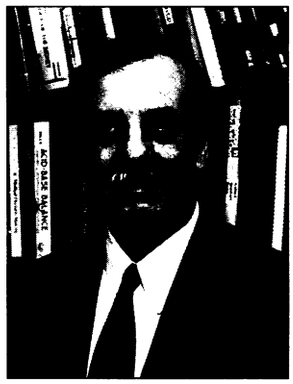
were "honest differences of opinion between Dr. Kassirer and the medical society over administrative and publishing issues." The two sides were "unable to find common ground," the society said, and for that reason, "the best course of action" was to search for a new editor. The society will name an interim editor soon, possibly Executive Editor Marcia Angell.



Irreconcilable differences. Jerome Kassirer.

To some, Kassirer's dismissal looked like a reprise of the decision by the American Medical Association (AMA) 7 months earlier to fire George Lundberg, editor of *The Journal of the American Medical Association* (*Science*, 22 January, p. 467). Kassirer had less tenure than Lundberg—only 8 years compared to 17—but, like Lundberg, he clashed with the physician-executives who run the parent organization and lost. But Frank Fortin, spokesperson for the Massachusetts Medical Society, argues that the two cases are very different, noting that *NEJM*'s owners never challenged Kassirer's editorial decisions: "This is not about the editorial independence or integrity" of the *NEJM*, he says. The disagreements had to do with business matters, Fortin explained, but he declined to discuss specifics. In contrast, AMA president E. Ratcliffe Anderson last January said Lundberg had been fired for publishing an "inappropriate" article on oral sex during President Clinton's impeachment trial.

According to Marshall Kaplan, chief of gastroenterology at Tufts University New England Medical Center in Boston and an associate editor of *NEJM*, Kassirer disagreed sharply with *NEJM*'s owners on plans to use the journal's name on other publications. Kaplan mentioned, for example, that the society recently bought *Hippocrates*, a popular journal for physicians, and that it had plans to develop new publications for patients similar to *Heart Watch*, a newsletter it now publishes. Kaplan said he and "most of the editors" feared it would "dilute" the reputation of the *NEJM* to place its name on publications that are less rigorously reviewed. But the medical society, he believes, has decided to increase its revenues to help pay the mortgage on "luxurious" new headquarters it built in the Boston suburb of Waltham. The *NEJM* staff, now ensconced near Harvard Medical School in Brookline, is not eager to relocate to the new building, which opened 2 weeks ago.

Like others, Kaplan described Kassirer as a "very successful editor." Massachusetts Medical Society president Jack Evjy also praised Kassirer in a prepared statement last week, saying the editor had redesigned the journal, shortened the turnaround time for manuscript review, and rapidly informed doctors of new medical developments.

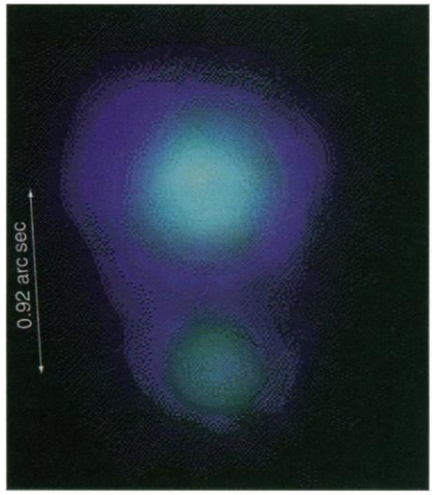
But many people were dismayed by what they interpreted as a loss of editorial authority. Epidemiologist Walter Willett of Harvard School of Public Health in Boston says he thinks the society "views the journal as a cash cow and wants to milk it even harder." Richard Horton, editor of *The Lancet*, says he thinks the Lundberg and Kassirer dismissals highlight "an acute crisis that is developing between the professional values of medicine and corporate values that have overtaken much of U.S. medicine in recent years." Medical journals, he says, are sustained by the trust that readers place in them. Abruptly firing editors, he says, can "damage that trust."

–ELIOT MARSHALL

PLANETARY SCIENCE

Telling Pluto and Its Partner Apart

Scientists have added another compound to the list of organic molecules detected on the solar system's coldest planet. Spectroscopic images show that Pluto harbors ethane, according to astronomers at Japan's Subaru Telescope on Mauna Kea, Hawaii. Their images, released last week, add to the evidence that Pluto and its satellite Charon have very different compositions, suggesting that

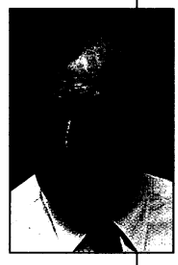


Pried apart. Pluto and its moon Charon, never before separated by a ground-based telescope.

ScienceScope

Pardon Ahead? Supporters of Ahn Jae-ku, a jailed 65-year-old Korean mathematician, are hoping that the longtime human rights activist will be freed next month as part of ceremonies for the country's annual Liberation Day on 15 August. Ahn was fired in 1976 from Kyoungbuk University for criticizing the then-military government and was arrested and convicted in 1979 for "antistate" activities. After his release in 1988, he was rearrested in 1994 for forming a discussion group that was alleged to be working on behalf of North Korea. Last year his life sentence was reduced to 20 years.

Ahn's son, Sae Min, says that President Kim Dae Jung, himself a former political prisoner, "made a promise to many people" during an award ceremony last month in Philadelphia. "That's why I think he'll be freed." Last week the human rights committee of the U.S. National Academy of Sciences sent a letter to Kim urging Ahn's release.



The Big Sweep In a surprising promotion, anthropologist Richard Leakey (right) has been elevated from director of the Kenyan Wildlife Service (KWS) to head of the civil service, the highest nonpolitical job in the Kenyan administration. Leakey has been an outspoken critic of Kenyan President Daniel arap Moi, but in announcing the appointment Moi said Leakey has his full support to "change the culture of corruption and inefficiency in our public service." Leakey told *Science* he plans to push for "policies rooted in conservation." Biologist Nehemiah Rotich, head of the East African Wildlife Society and acting director of KWS, is rumored to be a top candidate to succeed Leakey.

Manhattan Bound? The rumors that Harold Varmus, director of the National Institutes of Health, may move to New York City to take charge of the Memorial Sloan-Kettering Cancer Center (MSKCC) have been bolstered by a claimed starting date: 1 February 2000. According to researchers at a recent Gordon Conference, that's when Varmus would succeed Paul Marks, who announced his plans to retire in 2000 last year. Varmus was out of town, as was Marks, and neither could be reached for comment. Says an MSKCC press officer: "It's a nice rumor; I just hope it's true."

Contributors: Jeffrey Mervis, Michael Baker, Gretchen Vogel, Eliot Marshall

CREDITS: (FAR RIGHT) MALCOLM LINTON/GAMMA LIAISON; (BOTTOM) NAOJ

Charon formed in a tremendous interplanetary collision.

Most astronomers think that our own moon formed when a passing chunk of rock collided with Earth, knocking huge pieces of its surface rock into orbit, which later coalesced to form the moon. Because the surface rocks that formed the moon have a different composition from the rest of the planet, the two bodies should have a marked difference in elemental composition—and that's just what geochemists find. Astronomers have speculated that Charon—which was discovered in 1978, is about half the size of Pluto, and orbits its parent about once a week—also formed in a catastrophic impact. But although the spectrum of sunlight reflected from both objects has shown that they harbor molecules like ice and methane, Pluto and Charon are so faint and close together that astronomers couldn't always tell which elements are on which celestial body.

A team of astronomers led by Ryosuke Nakamura at the 8.3-meter Subaru Telescope took advantage of exceptionally good atmospheric conditions on 9 June to snap the first ground-based telescope image that shows Pluto and Charon as separate bodies. Nakamura's team produced spectra from the two bodies that showed differences in composition known from earlier measurements: Pluto is covered in nitrogen ice, while Charon is coated with water ice. The spectra also revealed small amounts of ethane on Pluto, but not on Charon.

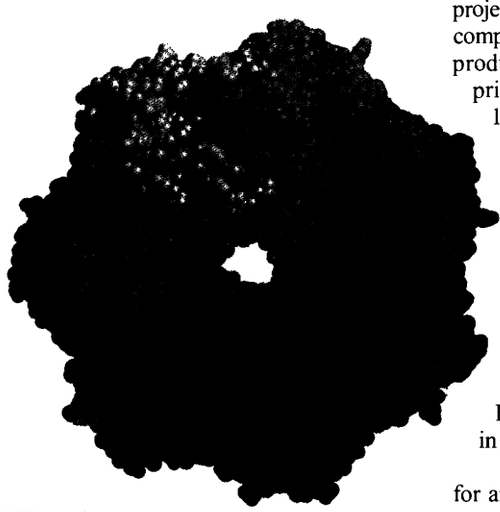
Astrophysicist Alan Stern of the Southwest Research Institute in Boulder, Colorado, says the detection of ethane "is a nice confirmation of theoretical predictions" that the compound would be found on Pluto, either left over from the solar system's formation or formed by sunlight-driven reactions. But it is probably too early to decide how Charon formed. "Right now I'd probably come down on the side of the impact hypothesis," says University of Hawaii, Manoa, astronomer Dave Tholen, "but more data will be necessary to try and tip the scales." Nakamura's team will be returning to gather those data in the near future, after the telescope has been adapted to better correct for atmospheric blurring. **–MARK SINCELL**

Mark Sincell is a free-lance science writer in Houston, Texas.

SYNCHROTRON RADIATION

NIH to Help Fund Big Physics Facilities

The National Institutes of Health (NIH) is getting into the synchrotron hardware business. Last week, NIH officials announced plans to spend $18 million this year to help pay for upgrades at California- and New York–based synchrotrons, which ricochet powerful beams of x-rays off materials to determine their atomic structure. NIH officials say they hope the money will help meet the burgeoning demand for "beamtime" among biologists looking to reveal the cell's secrets on the atomic scale.



Filling the gap. NIH funding should speed up work on determining such structures as ClpP proteasome.

The new money pales in comparison to the nearly $175 million that the Department of Energy (DOE) spends every year to operate the nation's four principal synchrotrons. Still, NIH's new direction is "tremendously significant," says Keith Hodgson, who heads the Stanford Synchrotron Radiation Laboratory (SSRL) in Menlo Park, California. A 1997 DOE advisory panel strongly backed a series of synchrotron upgrades (*Science*, 17 October 1997, p. 377). But the increasingly cash-strapped DOE has had a difficult time coming up with the extra money. "Given the difficult budget climate at DOE, I think the [upgrades] would have been difficult to pull off," says Hodgson.

NIH's support for the facilities comes in response to the mushrooming demand among biologists for access to the stadium-sized machines. According to a recent DOE advisory committee report, biologists have grown from about 5% of all synchrotron users in 1990 to nearly one-third in 1997. Among protein crystallographers, the growth is even more rapid: The number of protein structures solved with the help of synchrotron x-rays jumped from 16% to 40% in just 5 years. With the genome project churning out new protein sequences by the hundreds, demand is only projected to grow. "We said we have to do something about this," says Marvin Cassman, who heads the National Institute of General Medical Sciences in Bethesda, Maryland.

The first part of that something—$14 million of the $18 million of NIH funds—will kick off a $53 million upgrade of the central electron storage ring at SSRL, a project expected to take almost 4 years. When complete in 2002, the upgraded ring, which produces the tightly focused x-ray beams prized by users, is expected to generate 10 to 100 times its current x-ray power, enough to boost the facility from a "second-generation" to a "third-generation" machine. That newfound power will enable researchers to collect data faster and study smaller protein crystals than they can now, says Hodgson. NIH's other $4 million will support new x-ray detectors and storage ring improvements at the National Synchrotron Light Source at Brookhaven National Laboratory (BNL) in Upton, New York.

Although NIH has long helped pay for analytical equipment used by biological user groups at synchrotrons, the new money marks the first time the biomedical agency has paid for general capital improvements at any of the facilities. But DOE physicist Bill Oosterhuis notes that the new upgrades will benefit more than just biologists. "Most of the improvements will improve the quality of the x-ray beams for all the scientists," he says. **–ROBERT F. SERVICE**

CREDIT: BNL

EMBRYO RESEARCH

Stem Cells as Potential Nerve Therapy

Last November, U.S.–based researchers announced, with much fanfare, that they had isolated an "immortal" line of human embryonic stem cells—a type of universal cell extracted from an embryo, which can, in the right environment, transform itself into any type of human tissue (*Science*, 6 November 1998, p. 1014). The press was soon full of predictions that researchers would be able to grow new tissue, or even organs, from these cells for transplantation into sick people. Already, evidence that such therapies may be possible is emerging.

The best example so far comes from Oliver Brüstle of the University of Bonn Medical Center and his U.S. colleagues. On page 754, they report that they've taken embryonic stem (ES) cells from mice and coaxed them to form glial cells, a type of support cell in the brain that also produces myelin, an insulating sheath for neurons. When the researchers injected the glial cells into the spinal cords of rats with a genetic defect that leaves them unable to make myelin, the glia soon got to work coating the rats' neurons with myelin. "Our myelination experiments are a first example of an appli-