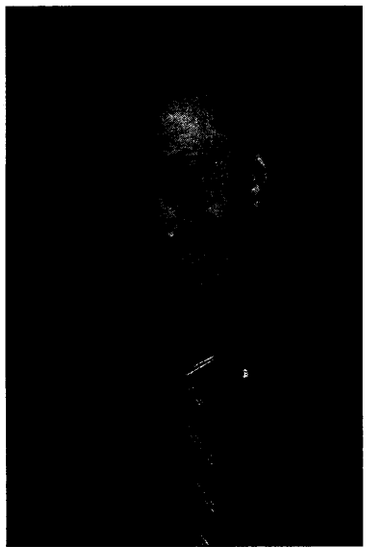
BIOMEDICAL RESEARCH

Varmus to Leave NIH in December To Run Sloan-Kettering ...

Last week, Harold Varmus made it official. After weeks of rumors (*Science,* 30 July, p. 649), Varmus informed President Clinton that he will resign as director of the National Institutes of Health (NIH) "at the end of the year" to succeed Paul Marks as president of the Memorial Sloan-Kettering Cancer Center in New York City.

The long-anticipated announcement immediately touched off speculation about who will succeed Varmus at the top of the world's largest and best-known biomedical research institution. It may be hard to fill the post with an outsider just a year before a change of administration. And Varmus's departure rattled some NIH staffers involved in unfinished projects. As one said last week: "You understand why [Varmus is] going... but you can't help feeling, as the song says: 'You picked a fine time to leave me, Lucille.'"



Back to the Big Apple. Varmus is looking forward to being in "a great city."

Varmus will leave NIH in good shape. Last year, Congress gave NIH the largest funding increase on record—$2 billion—bringing its total budget to $15.6 billion. Despite gridlock in Congress this fall, both Republicans and Democrats seem ready to repeat their generosity. The House appropriations committee recently approved a $1.1 billion increase for NIH in 2000, and last week the full Senate approved a $2 billion raise. This would put NIH's budget on the second year of a 5-year path toward doubling.

Varmus says he will "work intensively on NIH problems until the day I leave" in late December. After that, deputy director Ruth Kirschstein will "hold down the fort." Kirschstein is "diligent, loyal, [and] hard-working" and is "adored" by her peers, says Elizabeth Marincola, executive director of the American Society for Cell Biology. Kirschstein has run NIH before: In 1993, she was acting chief while Varmus awaited approval. But it would add "credibility," Varmus says, to have "someone who has the documented support of a search committee ... and has been endorsed by the Senate."

Varmus is urging the president to appoint a new director quickly. In his 7 October letter to Clinton, he wrote, "I am conscious of the risks you assumed in 1993" by choosing a bench scientist to head NIH. But, Varmus added, "I hope that the achievements of the past several years will encourage you and your successors to consider other active medical scientists to run this extraordinary agency." He has been lobbying for a late-term appointment, he says, partly because it would "send a good signal about the bipartisan nature of the job."

Few seem to think that will happen, however. "I think it would be hard," says a House Democratic aide. "It's highly unlikely" says a Senate Republican staffer. "A long shot," says a key House Republican aide, adding that he can't see someone of national stature "pulling up stakes and coming here for 18 months," which is how long the job might last if the next president decided to appoint someone new. But conventional wisdom has been wrong before, and Varmus insists there's "a reasonable prospect" of getting a permanent chief soon.

The Administration could speed up the process by recruiting from within NIH. Last week, speculation centered on National Cancer Institute director Richard Klausner, National Institute of Allergy and Infectious Diseases director Anthony Fauci, and National Institute of Mental Health director Stephen Hyman. But no local recruitment effort seems to have begun—at least not yet.

The lame-duck status of the NIH director isn't likely to have a big impact either on NIH's budget prospects or on the outcome of the contorversy over whether NIH should finance research on human embryonic human stem cells, according to congressional aides. But it could slow some projects—like Varmus's plan for the online database called PubMed Central (*Science*, 3 September, p. 1466). Varmus himself insists that PubMed Central "won't need me" after January, "when we get started and people see how effective it is and how few side effects there are for existing journals."

Varmus, who will turn 60 next year, says he took the Sloan-Kettering job because "I wanted to be in a place where there was medicine and a prospect of seeing laboratory findings affect a patient. I wanted to be in a great city." Varmus also has a high regard for Marks, his former Columbia University professor, whose molecular medicine lectures were "pivotal ... in my intellectual growth" in the 1960s. (Marks will continue doing research at Sloan-Kettering.)

Varmus's compensation will be a little less than $1 million a year, six times his NIH salary. But he took a pay cut to come to NIH and notes that "I haven't had a salary raise in 6 years." He and his wife, journalist Constance Casey, "like the idea of being back in the incredible cultural richness of New York." He will continue his work on mouse models of cancer in his lab and "possibly branch out" to new subjects. But there is one drawback, he concedes: Manhattan isn't ideal for one of his passions—bicycling. **–ELIOT MARSHALL**

FRANCE

... Kourilsky Takes Helm At the Pasteur Institute

PARIS—France's preeminent center for biomedical research, the Pasteur Institute in Paris, will start the next millennium with a new leader. Philippe Kourilsky, an internationally known immunologist at Pasteur, will replace outgoing director-general Maxime Schwartz on 1 January. Schwartz is stepping down after serving the maximum allowed tenure of two 6-year terms. The decision, which was made by the institute's 20-member executive board on 7 October, has been broadly welcomed by Pasteur scientists, who have been engaged in a long debate on the in-

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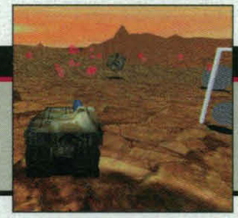


stitute's future. "Philippe is universally known as a good scientist and a good man," comments Jean-Louis Virelizier, a viral immunologist at Pasteur.

The appointment comes at a critical juncture for the institute and its 1100 full-time researchers. Since its founding in 1888 by Louis Pasteur, the institute has occupied an elite position in French biomedical research. It has a stellar scientific track record—eight Nobel laureates in physiology or medicine this century—and finances much of its current $165 million budget through donations, legacies, and income from its own activities such as patented vaccines and diagnostic tests.

"A good man." Pasteur's new chief, Philippe Kourilsky.

In recent years, however, Pasteur has been struggling with both financial problems and an identity crisis. Although income from donations and legacies has been increasing, this is not expected to continue, and some lucrative patents, particularly for hepatitis vaccines and AIDS tests, are either expiring or are being taken over by industry partners. At the same time, the proportion of state funding has been decreasing: Although annual spending has nearly doubled since 1989, the government now provides only 30% of Pasteur's budget, compared to 48% a decade ago.

Meanwhile, Pasteur researchers have increasingly been disagreeing over key issues such as the proper balance between fundamental research and public health concerns. At times these behind-the-scenes debates have broken into the open. For example, Schwartz and Pasteur medical director Philippe Sansonetti ran into stiff resistance when they tried to create an epidemiology department at the institute (*Science*, 13 November 1998, p. 1241). Sansonetti, whom some had considered the heir-apparent to Schwartz, later quietly took himself out of the running for the top job. By the time the executive board met, the widely respected Kourilsky, who has a long career in basic research but also serves as a government and industry adviser on public health issues, was the only serious choice.

"Everyone was pointing to Philippe," says Pasteur immunologist Antonio Freitas, who adds that Kourilsky is the right person to lead the institute out of its traditional ivory-tower isolation. "Pasteur needs to be modernized, to be much more open to the outside and establish collaborations with other institutions." And while Pasteur developmental biologist Margaret Buckingham praises Schwartz's efforts to put the institute "back on the map" in microbiology and other public health–related fields after some years of stagnation in these areas, she says that Kourilsky "will now be well placed to do the same" in booming areas of biomedical research such as "immunology, virology, and animal models of human disease." (Kourilsky, when contacted by *Science*, declined to comment on his appointment until he has taken up his duties.)

Whether Kourilsky will be able to resolve the issues facing the Pasteur Institute, only time will tell. But given the nearly unanimous approval of Pasteur scientists, his appointment may be the first thing they have all agreed on in years. **–MICHAEL BALTER**

PLANETARY SCIENCE

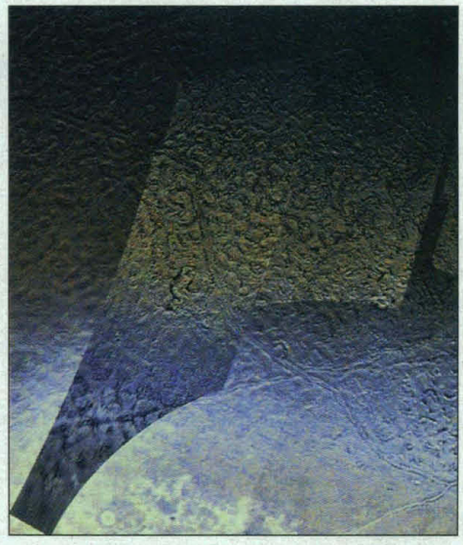
Neptune's Icy Cold Satellite Comes to Life

No planet lives forever, geologically speaking. After 4.5 billion years, Earth is in its middle age, its inner stores of heat trickling out to drive plate tectonics. Earth's moon, being smaller, has lost its life-giving heat faster; the flow of its surface-renewing lavas slowed and it died eons ago, like most of the other small bodies in the solar system. But planetary scientists are now realizing that a satellite even smaller than the moon, Neptune's Triton, is still showing signs of life.

The realization is all the more startling because it is based on reanalyses of 10-year-old observations. "This is showing us some real surprises in the outer solar system," says planetary scientist Alan Stern of the Boulder, Colorado, office of the Southwest Research Institute. Triton's meager heat from lingering radioactive decay, researchers assume, can still melt its interior of exotic ices to produce lavas or otherwise reshape and renew the surface. Recent telescopic observations even hint that geologic activity has made itself evident in recent years.

Planetary scientists use the drizzle of comets and asteroids onto a body's surface as a kind of geologic clock: The more craters there are, the longer it's been since mountain building, flooding by lavas, and other geologic processes reshaped the surface. And a young surface means a lively inner planet. In 1989, when the Voyager 2 spacecraft took the first and only close-up images of Triton, planetary scientists set to work counting impact craters. They assumed that all the craters were made by comets coming from the Oort Cloud, far beyond the outer planets. Given the calculated flux of Oort-based impactors, they eventually concluded that Triton's surface on average has been accumulating impacts for about 600 million years or less, a young face for a 4.5-billion-year-old body but hardly as young as Europa's 50-million-year-old visage.

A discovery out past Neptune has changed that view dramatically. In 1993, astronomers first spied a resident of the Kuiper Belt, a long-hypothesized disk of bodies left over from the formation of the solar system (*Science*, 23 June 1995, p. 1704). Although billions of Kuiper Belt objects (KBOs) normally orbit 1 billion to 3 billion kilometers beyond Neptune and Pluto, some of them fall inward to add to the solar system's comets, and a few of these collide with planets and their satellites. Two planetary scientists—Stern and William McKinnon of Washington University in St. Louis—have now factored in a rain of impactors onto Triton from the nearby Kuiper



Craterless? Few or no impacts have scarred the "cantaloupe" terrain (exaggerated color) of Triton.

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