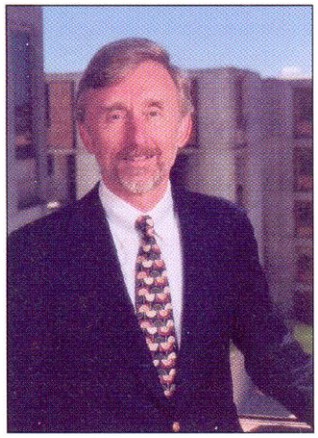
Salk: Under New Management

After several years under acting presidents, the Salk Institute finally has a full-time leader: cell biologist Thomas Pollard. His agenda includes beefing up the endowment and expanding the research base

LA JOLLA, CALIFORNIA—One day last April, Thomas Pollard found message slips on his desk from two prominent researchers at the Salk Institute for Biological Studies, the acclaimed basic research institute here that regally looks out on the Pacific Ocean. Pollard, then head of the cell biology and anatomy department at Johns Hopkins University School of Medicine in Baltimore, thought it odd to hear from these two men in the same day. "This was highly suspicious," says Pollard. "I might get a phone call from one of them every 2 years." He soon learned the reason for their calls: A search committee had identified him as the lead candidate to be the Salk's president, a job opening the committee had mightily tried to fill with a high-profile scientist—ideally a Nobelist—since 1994. The job, says Pollard, "had never crossed my mind."



"Obvious choice." Salk scientists have high hopes for Pollard.

The name Thomas Pollard had never crossed the minds of many of the more senior people at the Salk, either. Although the 54-year-old Pollard is a respected authority on how cells move about and a member of the National Academy of Sciences, many researchers at the Salk had never even heard of him. "He's not a household name," acknowledges the Salk's Anthony Hunter, one of the researchers who had phoned him that day. But the Salk staff is roundly delighted that Pollard decided in June to take them up on their offer, and they have high hopes that he can help right the institution's long-standing financial woes and provide a coherent vision of where it is heading scientifically. "Suddenly his name came up and it seemed so obvious," says search committee member Bart Sefton, a 22-year veteran of the Salk who studies how cells multiply.

One reason that Pollard seemed such an obvious choice, at least in retrospect, is his extensive involvement in the world of science outside his own lab: His background includes stints as president of both the American Society for Cell Biology and the Biophysical Society, and he currently chairs the Commission on Life Sciences at the National Research Council. "I think he's ideal," says oncogene researcher Michael Bishop, a Nobel laureate based at the University of California, San Francisco, who is one of the Salk's eight "nonresident" fellows—and one of several people considered for the Salk presidency who took themselves out of the running. "He's a distinguished scientist, which I think is an important credential for that job. He's someone who likes to run things, and he does that well. He's forceful, yet amiable and reasonable. And he understands national politics."

Pollard will need those skills: The Salk has had leadership problems for longer than anyone cares to remember, and its relatively paltry endowment of $35 million (see table) has dogged its 50 faculty members with money worries that colleagues at wealthier institutions have escaped. The leadership and fund-raising challenges were enough to discourage earlier candidates. But adding to those tasks, Pollard will also have to come up with a vision for a basic research institution that has strayed far from the original dream of Jonas Salk, who established the institute 36 years ago with the hope of blending the humanities and the sciences. Articulating exactly where the Salk is heading became more urgent with the recent opening of a new building that will allow the hiring of up to a dozen new faculty members.

These challenges seem to have elated Pollard, who officially took over on 1 July but will not move to La Jolla until November. "This seems like a perfect job for somebody like me who's an active scientist who has taken some administrative responsibilities," says Pollard, who is moving his lab with him. While he has several ideas about how to strengthen the institute and is already launching one of them—setting up centralized equipment facilities—Pollard doesn't want to move too quickly. "I don't yet understand how all the pieces fit together," he says. "It's like having names and numbers of all the people in a football game without having seen them play together. For the moment, I'm happy to see them play."

Building on success

By most yardsticks, the Salk Institute is a remarkable success. Since the stunning main building, designed by the late American architect Louis Kahn, began filling up with renowned scientists in the mid-1960s, the Salk has risen to become a world-class scientific institution that, for its size, has few peers. Roger Guillemin, a Nobelist who left the Salk 6 years ago to head an ill-fated research program at La Jolla's Whittier Institute (he's now retired and making computer art), recalls that when he arrived there in 1970, he thought "This place is too beautiful for anything bad to come out of it." Flanked by The Scripps Research Institute on one side and the University of California, San Diego (UCSD), on the other, the Salk also enjoys a rich research culture. "I don't think pound for pound there's as much of an intellectual scientific community in as small a radius as there is in San Diego," boasts gene therapy researcher Inder Verma, who has been at the Salk for 22 years.

The Salk's accomplishments jump out in a database of scientific publications, put together by the Institute for Scientific Information (ISI) in Philadelphia. One analysis reveals that papers published between 1988 and 1992 by Salk researchers who study molecular biology and genetics were cited more frequently, on average—and thus are said to have had more "impact"—than such papers from any other institution. The Salk ranked number one in neuroscience, too, according to another ISI citation impact analysis for the same period.

Nor has the Salk suffered much scientific damage during its presidential vacancy. "In some ways we've had our best scientific years [recently]," says Ronald Evans, who studies how steroid receptors affect development and disease. "We have an outstanding environment and a stable faculty. That's been a real key to maintaining the integrity of the institute."

The top job has been open on and off since November 1988, when the Salk's leader of 18 years, nuclear physicist Frederic de Hoffman, stepped down. Although de Hoffman put the institute on its financial feet, many staffers were elated when he left. "Most people were demoralized when de Hoffman was president,"

says Sefton. "He tried to divide the faculty and was autocratic. When de Hoffman retired, a lot more people became involved in decision-making."

Indeed, the faculty began to run the institution. Nobel laureate and longtime faculty member Renato Dulbecco became acting president. Faculty members had an increased voice in who was promoted and how to distribute lab space. They also took part in the search for a new president—a protracted process that saw one promising candidate after the other back out of the job. Finally, in 1993, the Salk settled on epidemiologist Brian Henderson from the University of Southern California. But he abruptly resigned 20 months later, in part because he found it difficult to both carry on his own research and run the institution. Salk veteran and Nobelist Francis Crick served as interim president, while another search committee labored to find a replacement.

As a result of these presidential travails, says Verma, "In the last couple of years we had a leadership that was coasting along." Crick and Dulbecco, he says, gave the institute "stability and strength." At the same time, Verma says, "they maintained the status quo and let faculty run the place. They didn't have the time or ability to take it forward."

A critical reason why the search for someone able to do so took so long is that the committee was looking for a good scientist who would be willing to spend a large chunk of time out of the lab raising money. "The difficulty of getting a good scientist is most of them were reluctant to give up their work," says Crick. And several of the leading candidates had built relatively large labs."Tom [Pollard] was running a rather small lab and wouldn't have had to make that radical of a change."

Fundamental realities

Pollard will have to devote plenty of time to fund raising, say many of the Salk's faculty: It has never had much of an endowment, and researchers are having an increasingly difficult time finding money on their own. "A place that has the scientific prestige of the Salk is woefully underendowed," contends Evans. Hunter, an oncogene researcher at the Salk since 1975, says, "It's a great place to do science, but if we had a large endowment things would be better. ... The lack of money has led to some shortcomings. There was a lot more science in the old times." Adds plant researcher Joanne Chory: "In the back of our minds, we're always worried about what will happen to federal funding."

Another common, related concern is that the Salk now requires researchers to pay their entire salaries from their grants, a situation that a large endowment could help alleviate. Pamela Mellon, a neuroscientist at UCSD who spent 8 years at the Salk, explains that she left more than 4 years ago in part because the requirement to pay her own salary severely limited the funds she had to do research. People at the Salk, she says, "live more on the edge than people do who have hard-money salaries."

The salary issue is particularly acute for junior researchers, who typically have to scramble harder to find outside funding. "For those of us who have been around for a while, it's less of a problem," says brain researcher Fred Gage, who took the opposite career path from Mellon, leaving UCSD last year for the Salk. "A young person coming here says, 'Great, I want to go to the Salk Institute.' Then reality strikes: There's no funding." AIDS researcher Didier Trono, who joined the Salk 6 years ago right out of his postdoc at the Massachusetts Institute of Technology with Nobel laureate (and Salk alum) David Baltimore, stresses that the institution spends some money on helping younger researchers get started. "They really bet on me," Trono says. "But they said in the long term you need to be independent. That contributes to the relative toughness of the place. You cannot sit on your chair and hope that half of what you need will be taken care of by the institute."

Competition for money has also sharply pitted faculty members against each other, contends one ex-Salk staffer who asked not to be named. "Since there's so little money, they fight over it viciously," says this researcher. "A number of people have left. Obviously they don't leave because of the beauty of the place."

Pollard, who says Hopkins typically pays about 30% of its faculty's salaries, agrees that the Salk needs to substantially build its endowment, although he notes that many of the Salk's researchers are among the best funded in the world. "The quality of the research there has been so good that the investigators have been fabulously successful at raising research grant money," says Pollard. "I've hardly ever seen such good cash flow in a research institution." Then again, he says, if the Salk could pay parts of the salaries, investigators could do more research with their grant money, which, in turn, "would make the faculty even more competitive for research grants."

Ideally, Pollard says he would like the entire staff to have endowed chairs, providing a significant financial base for everyone. He has calculated that, with the current staff size, that dream would mean building an endowment of $100 million. "It's doable over 10 to 15 years," says Pollard. Many Salk researchers believe that the local San Diego community is a little tapped source of philanthropy that could provide substantial help: The institute, says Sefton, "is much better known for the architecture [of the Kahn building] than the science."

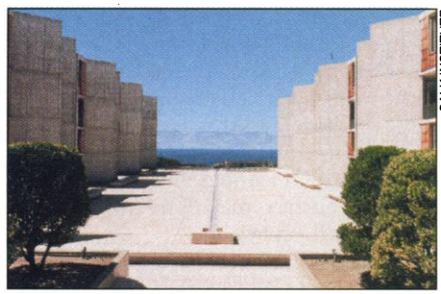
Aside from bringing in more funds, the Salk faculty is anxious for Pollard to help broaden the institute's scientific expertise. One area that the faculty earlier this year decided it wanted to branch into more aggressively was, by chance, Pollard's specialty: cell biology. "We've really managed to kill two birds with one stone," says Crick of Pollard's hiring. Several staff members also would like to see the institution make more of an effort to bridge different disciplines. "Biology is moving to a stage now where integration of systems is going to be very important," says oncogene researcher Walter Eckhart, who has been at the Salk since 1965. "Now it's time to relate to the organism, to integration."

The Salk institute may not be what its founder, who died in June 1995, imagined. But its evolution is something Salk, who loved biological metaphors, often celebrated. "More than anything he wanted it to evolve," says neuroendocrinologist Wylie Vale, who came to the Salk in 1970. "And that it did. And it will continue to do so."

–Jon Cohen

BOTTOM LINES OF U.S. NONPROFIT RESEARCH INSTITUTIONS

	# of PIs	Annual Budget (millions)	Endowment (millions)
Carnegie Institution	60	29	338
Cold Spring Harbor Laboratory	35	45	100
Fred Hutchinson Cancer Research Center	144	158	46
Salk Institute for Biological Studies	50	55	35
Whitehead Institute of Biomedical Research	18	30	198
Wistar Institute	40	26	22



SALK INSTITUTE

Landmark. The Salk's architecture may be better known locally than its science.