one of the best selling cancer drugs worldwide. It is used to treat ovarian and breast cancer, and many breast cancer survivors take the drug to prevent recurrence of the disease. For now, there's enough paclitaxel to go around, but demand could soon grow: Investigators are testing the drug's power over other cancers, Alzheimer's disease, and multiple sclerosis, among others. If those uses pan out, supplies might become scarce. That's because paclitaxel is made by modifying a precursor compound extracted from the needles of the Pacific yew, an endangered tree that grows along the coast of the Pacific Northwest.

Angela Hoffman, a chemist at the University of Portland, Oregon, had previously looked for ways to boost paclitaxel production in yew trees. To her surprise, she found a new source of the compound while working on a completely different project. She and her colleagues were studying hazelnut trees to see why some were more susceptible than others to Eastern filbert blight, which is devastating hazelnut groves in Oregon's Willamette Valley. The researchers prepared extracts from several types of hazelnut trees, and after purifying and analyzing the samples, Hoffman noticed the familiar chemical signature of paclitaxel.

Hoffman and her colleagues determined that hazelnut trees make paclitaxel in their leaves, twigs, and nuts, although only at about 10% of the concentration in yew trees. They also found that fungi living on hazelnut trees produce paclitaxel.

Down the road, it's the fungi that could be the most valuable find, says David Houck, a natural products expert at Phytera, a drug company in Worcester, Massachusetts. Paclitaxel-producing fungi have also been isolated from yew trees, he says. If a fungus could be coaxed into churning out the drug in vats, "it would definitely have value," Houck says.

New leaf? As demand for paclitaxel grows, producers may get it from hazelnut trees.

–ROBERT F. SERVICE

TAIWAN

Lee to Remain as Academy President

Scientists and staff at Taiwan's Academia Sinica are breathing a sigh of relief this week after institute head and Nobel laureate Lee Yuan-tseh decided to remain at the academy rather than join Taiwan's new administration.

Lee, who has become a major political figure since returning to Taiwan in 1994 to head the academy, endorsed Chen Shui-bian for president just a week before Chen won a narrow plurality in the 18 March election. It was a controversial move, partly because the head of Academia Sinica reports directly to the president of Taiwan.

Staying put. President-elect Chen, right, and a reluctant Y.-t. Lee.

Lee then tendered his resignation, which was rejected by outgoing president Lee Teng-hui, and went on a 2-week vacation. When Chen won, he announced that Lee was his first choice for premier.

The possibility that Lee might join the new government left a cloud of uncertainty hanging over Academia Sinica, a collection of 24 institutes that represent the island's premier research efforts. Lee is credited with garnering increased financial support, reforming advancement and research procedures, and recruiting leading scientists to key positions. But on 29 March Lee announced he would turn down Chen's offer and stay on as head of Academia Sinica, although he said he has agreed to serve as a presidential adviser.

Staff are glad to have him back. "We're really happy," says Sheng-Hsien Lin, director of Academia Sinica's Institute of Atomic and Molecular Sciences. "We think he can do much more [for Taiwan] in science than in politics."

Although the immediate question of the academy's leadership is resolved, its long-term political status remains unclear. Lee may have alienated Taiwan's National Assembly, which is still controlled by the long-ruling Kuomintang, the Nationalist Party, by criticizing its policies and endorsing Chen, a member of the Democratic Progressive Party. Some observers also wonder if Lee's support for the progressive party, the most pro-independence group in Taiwan, might affect efforts to build stronger scientific relations with China.

–DENNIS NORMILE

BIOCHEMISTRY

Chemical Tags Speed Delivery Into Cells

SAN FRANCISCO—For pharmaceutical-makers, trying to get a drug inside cells can be as difficult as meeting the Rolling Stones: You might score tickets to a Stones concert, but to party with Mick Jagger you need a backstage pass. In the case of pharmaceuticals, companies must make drugs water soluble to pass through the bloodstream on the way to their targets. Yet once the compounds have arrived at their destination, they need a very different kind of chemistry to dissolve through the fatty membrane surrounding cells. Often drugs can manage one task but not the other. But a team of California researchers may have found a way to change all that.

At a meeting of the American Chemical Society (ACS) here last week,* team leader Paul Wender of Stanford University reported that he and his colleagues have discovered a small chemical tag that appears to act as a universal pass, allowing compounds access to the interior of cells. The cellular pass is a short protein fragment, or peptide, made up of a repeating series of up to nine arginine amino acids. At the meeting, Wender, an organic chemist, reported that when the arginine peptide is linked to a variety of different drugs, it ferries its cargo into cells at unprecedented rates. When the team hooked the peptide to the powerful immunosuppressant cyclosporin, for example, the drug passed right through human skin grafted onto a mouse—an impossible feat without the peptide.

"This is an important development," says John Voorhees, a dermatologist at the University of Michigan Medical School in Ann Arbor. When physicians use cyclosporin to treat skin conditions, they give the drug in capsules in hopes that some of it will make its way from the gut to the bloodstream and eventually inside skin cells. A topical cream could be more effective for treating conditions such as psoriasis and eczema, and it

* 219th ACS national meeting, 26–30 March.

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