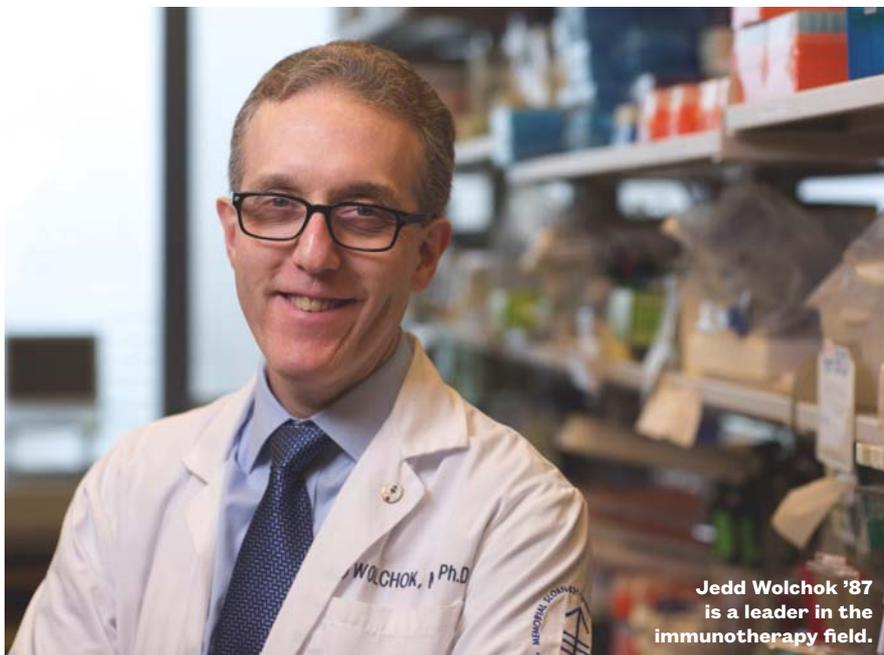


PRINCETONIANS



Jedd Wolchok '87 is a leader in the immunotherapy field.

JEDD WOLCHOK '87

A BELIEVER FROM THE START

An immunologist studies how drugs and vaccines could arm the immune system to fight cancer

With his boyish appearance, Jedd Wolchok '87 could be mistaken for a medical resident. But he is an oncologist and an immunologist at Memorial Sloan-Kettering Cancer Center in New York who has spent 25 years studying how drugs and vaccines could arm the immune system to fight cancer.

A leader in the immunotherapy field, he is at the center of the development of a new class of drugs that could provide a turning point in cancer treatment. The currently available immunotherapies work only in a tiny fraction of patients with certain types of cancer and must be given by experienced immunotherapists.

But the newer therapies being tested in clinical trials so far have worked on a larger patient population and in more types of cancer, including lung cancer, the second most common cancer in the United States.

This new generation of drugs is poised to introduce immunotherapy to the rest of the cancer world in a major way, according to Keith Flaherty, an oncologist at the Dana-Farber/Harvard Cancer Center in Boston.

White blood cells can recognize and attack a tumor. However, tumors have ways to evade these immune cells, including boosting the activity of certain molecules that can suppress the activity of immune cells. The new class of cancer drugs — antibodies that block this negative activity — can extend the lives of some patients with cancers previously considered to be terminal by years.

Until a few years ago, immunotherapies were marginalized, considered complicated treatments administered at few cancer centers. Success rates were low, and the therapies could be given only to otherwise healthy patients who could tolerate the autoimmune effects of an unleashed immune system. There was little evidence that more than two tumor types could be treated this way.

But for Wolchok, immunotherapy has been a question not of “if” but “when.” “I saw that it wasn’t a question

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STARTING OUT

JOHN MISHU '13
Intern for the labor relations department in Major League Baseball's commissioner's office in New York City.

DUTIES: Mishu helps determine how much arbitration-eligible players and free agents are worth.

CHALLENGE: In analyzing players' monetary value, “I can't bring ‘baseball-fan Johnny’ into my valuations. ... I've got to put my admiration for them aside.”

STAYING IN THE GAME: Mishu gets to do in the workplace what he has done for years with his friends: talk baseball.



From top: Michael Falco/Black Star; Courtesy John Mishu '13

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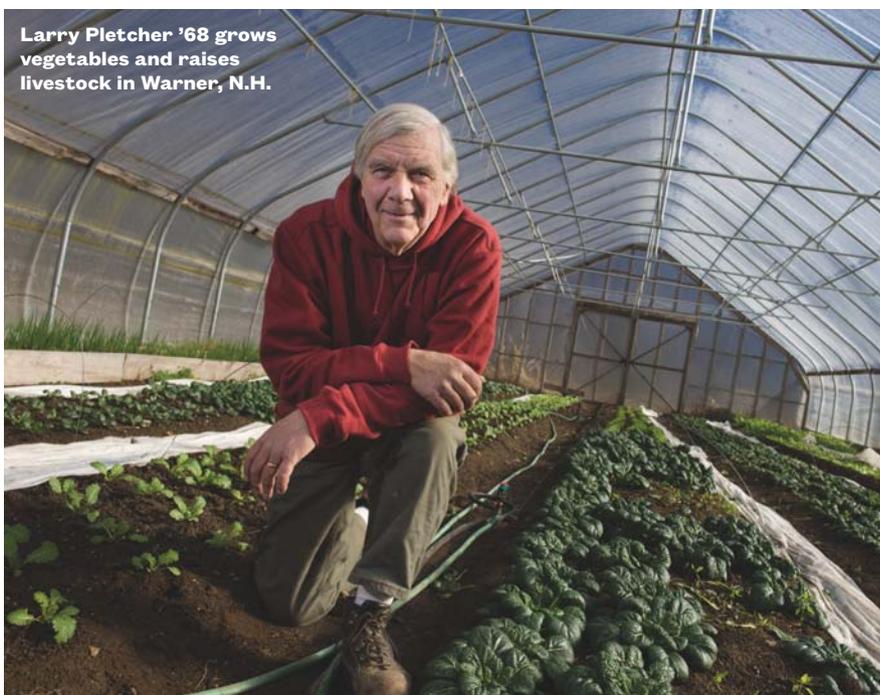
of whether it was real, but a matter of making the clinical successes more frequent,” says Wolchok, a melanoma specialist at Sloan-Kettering’s Ludwig Center for Cancer Immunotherapy.

Wolchok’s start in tumor immunotherapy traces back to the summer after his freshman year at Princeton. He spent that summer at Sloan-Kettering working with Lloyd Old, considered the father of modern tumor immunology. After completing medical school and a residency in New York, Wolchok returned to Sloan-Kettering to study what happens to the immune system during cancer and how to stimulate immune cells to recognize tumors as foreign.

Wolchok took part in clinical trials that showed, in results released in the summer of 2013, that the new, still-experimental drugs, called anti-PD-1 and anti-PD-L1 antibodies, substantially shrank tumors in one-third to one-half of patients. One trial reported that 43 percent of advanced melanoma patients were alive two years after starting treatment. (Typically, only one-fourth to one-third of advanced melanoma patients remain alive for that long.) The newer drugs minimize the toxic autoimmune side effects such as colitis and hepatitis that have been linked to other immune therapies, and can be given in an oncologist’s office rather than in a hospital.

The new drugs appear to work not only in kidney cancer and melanoma, which historically have been more responsive to immunotherapy, but also for the first time in lung cancer, according to recent clinical trial results. They are being tested in other tumor types. Larger trials needed to approve the therapies in the United States and around the world are underway.

Long-lasting therapy needs to work with the immune system, which has a memory, says Wolchok, and can evolve along with the cancer, similar to children’s vaccines that continue to work for decades. “I am extremely pleased that cancer immunology is changing from a speculative science into a conventional therapy,” he says. ♦ *By Anna Azvolinsky *09*



Larry Pletcher '68 grows vegetables and raises livestock in Warner, N.H.

PROFILE: LARRY PLETCHER '68

ONCE A LAWYER, NOW A FARMER

From briefs to broccoli Larry Pletcher '68 always has felt a kinship with the soil. He spent his childhood roaming the fields of a former estate in Morristown, N.J., where his family lived in the caretaker’s house. Growing vegetables and showing livestock in the local 4-H chapter were *de rigueur*. Later — after he earned his law degree and entered private practice — he and his wife settled into a new home in New Hampshire and tilled a family garden plot. After a long stint working in family law in New Hampshire, Pletcher left the legal profession in 2001 and turned back to the land. “I’d been dying to start farming for a long time,” he says. “My only regret is that I didn’t make the switch sooner.”

RÉSUMÉ
Founder and owner of the Vegetable Ranch, a 14-acre certified-organic farm in Warner, N.H. Practiced law for nearly three decades. Law degree from UCLA. Majored in politics.

A day on the farm Pletcher’s day begins about 6 a.m. when he heads to the farm office to ensure that invoices for the day’s deliveries are in place. Lettuce, beets, carrots, turnips — whatever vegetables are in season — are boxed and readied for pick-up by customers who purchase shares or for delivery. Plots are tilled, planted, or weeded; animals are fed; and the day ends about 7 p.m. with another round of paperwork. Pletcher provides produce to customers nearly year-round.

More labor, less stress In 2012, Pletcher started supplying scallions, cherry tomatoes, squash, radishes, and red potatoes to Concord Hospital. He has supplemented his small herd of cattle with a few Tamworth hogs to supply certified-organic pork, while his two flocks of chickens turn out a daily supply of fresh eggs. “You work longer hours and there’s more physical labor on the farm,” Pletcher says, “but there’s much less emotional stress, and there’s the satisfaction of being your own boss.” ♦ *By Lori Ferguson *89*

John Sherman