

## Biotech grows into toddler stage

FIELD ISN'T STRUTTING ALONG AS ONCE PREDICTED, BUT IT IS A GROWING FINANCIAL PRESENCE

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In 2002, the man who was then the president of Oregon Health & Science University gave a visiting group of U.S. senators a bold forecast.

By 2005, Dr. Peter Kohler said, OHSU would reach a "critical mass" of \$300 million in annual research funds. By 2006, he predicted Oregon would have a bioscience industry worth \$1 billion: "We consider that a fairly conservative estimate." One OHSU-developed cancer drug, herstatin, by itself "could generate a \$1 billion a year in economic activity" if commercialized in Oregon.

The very next year, OHSU licensed herstatin to a California company. The university hasn't yet hit \$300 million in annual research funds. And Oregon's biotech business is far from \$1 billion in value, by even the most generous measures.

Kohler was just one of many who said some nurturing and a sprinkling of seed money was all biotech needed to flower in Oregon. Their goal was audacious: \$1 billion is as big a chunk of Oregon's economy as athletic apparel (nearly \$1 billion in annual wages) or arts and entertainment (whose annual production approaches \$1 billion). But the ambition convinced the governor, won support to develop Portland's tram-fed North Macadam area and funneled to OHSU \$200 million in state-backed funds to expand.

But trams and cash have so far failed to overcome several barriers facing Oregon biotech. The state has a small biotech sector to build on. Lab and drug-making space has been scarce. Few executives are trained to run biotech firms. And more advanced biotech hubs, such as Seattle, San Francisco and San Diego, pose stiff competition.

Biotech boosters say they have worked hard to pass those obstacles and feel the industry is picking up speed. In the past two years, business groups, university leaders and politicians have started programs to lure biotech offices from other states and foster more home-grown companies. The efforts include classes to train biotech managers, university-supported venture capital funds and a Portland Development Commission plan to spend millions luring companies to the South Waterfront. That work should add to recent successes -- including industry power Genentech's planned finishing plant in Hillsboro -- and gradually build a big biotech sector in the coming decade, supporters say.

"There's a lot of things going on here that weren't going on here two years ago," said Arundee Pradhan, OHSU's director of technology and research collaborations.

But bioscience companies are notoriously slow to grow, most losing money for years. Even boosters leaven their statements with a dose of realism. No one thinks Portland will become a major bioscience town like Boston, even a second-tier center like Seattle, any time soon.

"This is a 10-year program to build something from the bottom up," said Bob Monaghan, an executive in California's booming health business for decades who recently began consulting in Portland. "There is tremendous potential here. I think it just needs some time and care and feeding to make it work."

Just what companies count as biotech is a hotly debated topic. But even the most inclusive definition of biotech puts Oregon far from its billion-dollar dream. The most accepted estimates peg the state's sector at \$250 million to \$500 million in annual wages. But those figures have been increasing at about twice the state's overall rate of wage growth.

"It's small but growing," Monaghan said.

Economic developers, educators and business groups aim to fuel that growth through a host of programs that focus on turning more Oregon research into Oregon companies.

The effort starts with a simple idea: More scientists = more ideas.

For example, OHSU used its \$200 million in state money and some private donations to recruit hundreds of researchers, aiming for "entrepreneurial" faculty members who want to commercialize their work, Pradhan said. Other schools and health centers also are emphasizing what they call "translational research," which moves basic science into marketable health products. An Oregon Innovation Council, appointed by the governor, has proposed a \$7 million Oregon Translational Research and Drug Discovery Institute to help commercialize disease-fighting technology from OHSU, Oregon State University, Portland State University and the University of Oregon.

"I think all the academic institutions in Oregon are committed to creating spinoff companies that have staying power," Pradhan said.

Other programs address a shortage of trained biotech executives in Oregon by offering training in arcane skills, such as meeting Food and Drug Administration regulations. The Oregon Bioscience Association has grants to underwrite classes on regulations, quality management and "lean manufacturing," executive director Bob Lanier said. At OHSU, programs partner faculty with lawyers, capitalists and other experts who offer advice on running a business. And OHSU is working with Oregon bioscience companies "to create a new program dealing with management in the bioscience industry," Jonathan Modie, a spokesman, said.

Ginning up more capital has been a priority.

Pradhan said OHSU built more labs for its scientists, then created openings for others by moving programs from its Hillsboro campus. The university also rents businesses time on some of its expensive equipment, such as electron microscopes. Lanier hopes to create a "biomanufacturing" plant that could produce small batches of drugs and health products for testing. The lack of such a plant in Oregon has made it harder to recruit scientists, he said.

Money may start flowing faster. The state Senate is working on a bill to let Oregon universities set up venture capital funds, offering donors to those funds a tax credit. OHSU has a Bioscience Innovation Fund that has sponsored several technologies -- though some went to out-of-state companies. "We're trying to make sure that companies locate close to where we are," Pradhan said, "but we honestly have little control over where a company ends up."

Economic development officials are hoping they can actually draw companies from other states into Oregon. Their ideal model is Genentech, which plans to open a 200-worker, \$250 million final manufacturing and packaging plant in Hillsboro in 2008. State and city officials are using a variety of incentives to duplicate that success.

The Portland Development Commission, for instance, is finalizing a deal with OHSU that would have the commission spend \$3.5 million over five years to lure companies to South Waterfront Central District, said PDC's Colin Sears.

Sears said PDC and business representatives visited two trade shows in three months, promoting Oregon's young and educated work force, tax structure and biotech research. They even hauled hazelnuts and Dagoba chocolate to Germany's massive Medica show in November to show off Oregon's bounty.

This development work takes time and cash. But it has notched some wins. One is medical test-maker QuantRx Biomedical Corp., which wanted a new research office outside its Pennsylvania headquarters.

"We had pretty much decided we were going to move to San Diego, when all of a sudden we got a call from Colin Sears," said Cindy Horton, vice president of diagnostics for QuantRx.

The PDC scoped out industrial sites QuantRx might occupy and put together a \$58,000 package of loans and grants. It was "a nice incentive" other cities weren't offering, Horton said. Company officials liked Portland's relatively low cost of living, she said, and found a work force with "limited but expandable" skills.

QuantRx used the incentive money to turn a site near the Portland airport into a diagnostics-research lab. The office opened in February and should have 20 workers by the end of 2007, Horton said.

Sears said PDC is chasing other companies that may want a West Coast presence with moderate, 10-25 person offices. Biotech leaders think the coming years will see more of these imports joining a host of small Oregon startups.

"There's a shift in the view of Portland being a viable place," Lanier said. "The word on the street is Portland is the last affordable city to set up shop if you're in the biosciences."

But dozens of spinoffs and new offices would have to thrive here to prove that biotech can truly be a big Oregon business. The newest revenue forecast from Oregon's Office of Economic Analysis makes no promises about the promise of biotech: "It is too early to tell if these are indeed the next growth industries and what returns that they may bring."