

The Journal of Business

From Our Special Reports

The issue dated August 01, 2003

Universities, capital, locale keys to biotech

Regions can surmount barriers if basic research is strong, Amgen co-founder Leroy Hood says

By Addy Hatch

Dr. Leroy Hood, a scientist who knows a thing or two about the biotechnology business—he's had a hand in the creation of a string of successful biotech companies, including Amgen Inc., a \$5.5 billion-a-year industry leader—says a city or region must have three main ingredients to build a biotech industry.

First, there must be a university that does basic research, since “a lot of the ideas of biotech have to come straight out of academia,” the Seattle-based Hood said in a telephone interview last week.

Second, there needs to be a lot of capital available, whether that's from venture capitalists, angel investors, banks, or a combination of the three. “Generally, it's most effective if some of those (financial) people are in the community and are committed to building the community,” he says.

Third, the city or region has to be an attractive place to live, because much of the management expertise for such companies will have to be recruited from elsewhere.

Does Spokane have what it takes?

Hood, a native of Missoula, Mont., says he doesn't know. “I'm not at all familiar with your area,” he says.

That will be remedied to some extent in September, when Hood visits Spokane to deliver the keynote speech at the Spokane Regional Chamber of Commerce's annual meeting. While he's here, chamber officials are hoping to introduce him to leaders of Spokane's nascent biotech industry.

The chamber views Hood's visit here as a coup, since he's one of the biotech industry's most august personalities.

Hood developed the technology that made possible the landmark human genome project, an effort to map the sequence of human DNA that was completed amid tremendous fanfare. He was recruited to Seattle in 1992 from the California Institute of Technology, a move sparked by Microsoft co-founder Bill Gates' \$12 million gift to the University of Washington to establish a department of molecular biotechnology.

Hood left that position in 2000 to found the Institute for Systems Biology, a Seattle nonprofit research foundation that uses biology, medicine, technology, and computational science to focus on human biology as a whole rather than on individual cells, genes, or proteins.

While he can't speak to Spokane's strengths specifically, Hood says any region that wants to build a biotech economy—and many do, because biotech is a clean industry and its employees generally are well paid—had better look to its universities first.

“Fostering the growth of strong science in academic centers—that is No. 1” when it comes to building a biotech industry, Hood says.

“It is hard to put a new company that isn’t intellectually connected to some academic center in a place and have it go by itself,” he says.

In Spokane’s case, he says a biotech industry here likely would mirror Washington State University’s research expertise in animal science and plant and molecular biology.

“What’s important is to build around your strengths,” he says.

In areas where Spokane is lacking, “think about what you would like your strengths to be and start moving to change them,” Hood suggests. Work on enhancing Spokane’s national reputation to attract dollars and talented people, he says.

Spokane, like Seattle, is hampered by the fact that Washington state has an anti-business reputation and that other states can woo industries with tax incentives and loans—economic-development weapons that aren’t available in Washington due to constitutional limits here on the use of public funds to attract private enterprises.

Still, those and other hurdles can be overcome, Hood says.

“In many ways Seattle is a pretty unattractive place for new startups” because of a lack of lab space and office parks where biotech companies can cluster and grow together, and because of its high cost of living and traffic problems, Hood says. Despite those drawbacks, Seattle’s biotechnology industry is strong because of that city’s “wonderful academic research institutions,” its support for entrepreneurial efforts, and the fact that it’s an attractive place to live, he says.

Hood says that efforts to build a biotech economy should be applauded.

“It’s certainly worthwhile for communities to think about how they can make their community attractive to biotech,” he says.