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BIOPHARMA

Nano bull's-eye

Langer-backed startup quietly ramps up cancer nano-treatment

BY CATHERINE WILLIAMS
STAFF WRITER

Local researchers at work on a cancer treatment to target only sick cells — sparing healthy cells from the ravaging effects of treatments such as chemotherapy — have quietly launched a new company.

Already, the science developed at **MIT** and **Harvard University** has led to the creation of Cambridge-based **Bind Biosciences Inc.**, which is backed by an A-list roster including co-founder MIT research pioneer **Robert Langer** and local investors who have funded several previous Langer ventures.

Within less than a year, fledgling Bind Biosciences has hired eight employees, pulled in $2.5 million in seed funding, and, on June 30, inked a licensing deal with MIT and Boston-based **Brigham and Women's Hospital** for four patents and 12 patent applications.

Polaris Venture Partners of Waltham, a longtime Langer backer, anted up $1.5 million, and **Flagship Ventures** of Cambridge chipped in $1 million in Series A funding eight months ago.

Bind holds exclusive rights to a package of technologies focused on targeted, nanoparticle-based drug delivery. The technology — designed to seek out malignant cancer cells or cardiovascular-disease cells, for example — could mean the end to treatment methods such as chemotherapy, which zap all cells in the body with powerful toxins.

SANDIE ALLEN

ROBERT LANGER, front, and **OMID FAROKHZAD**, seated, are co-founders of startup Bind Biosciences, which has brought on biotech vet **GLENN BATCHELDER**, standing, as CEO.

Bind's science is based on research led by **Omid Farokhzad**, who studied under Langer at the **MIT Langer Lab**.

Farokhzad, who is a co-founder of Bind with Langer, is a researcher at Brigham and Women's Hospital and an assistant professor at **Harvard Medical School**.

The work is attracting attention from at least five large biopharma companies that have approached Bind executives about its technology, said Farokhzad.

Langer's pedigree is regal among biotech circles. He holds 560 issued or pending patents worldwide and was awarded the National Medal of Science last month. But Bind's technology, which emerged out of $20 million in research grants backed by the **National Cancer Institute**, appears to be the new apple of Langer's eye.

"This is one of the next big waves of drug development," said Langer.

Bind's process of "precisely engineering and optimizing nanoparticles in a combinatorial way" is unique from other companies working in nanoparticle-based drug delivery, said Farokhzad. Oncology is one of many possible applications, he said.

Abigail Barrow, director of the **Massachusetts Technology Transfer Center**, said even Bind's licensing agreement is exciting because it contains a broad package of technologies, meaning Bind can protect itself from competitors and suggesting that it is serious about development. It's atypical for institutes to license bundles of technologies, she said. Institutes usually license just one or two at a time.

GROWTH PLANS

Bind plans to hire 10 more employees — more than double its payroll — by the end of 2007, said **Glenn Batchelder**, Bind's CEO, who is the former president and CEO of Cambridge-based **Acceleron Pharma Inc.** and a former senior vice president at Cambridge-based **Millennium Pharmaceuticals Inc.**

Bind also plans to launch clinical trials by mid-2009 and raise a Series B round of funding this fall, said Batchelder. "When you're running a small company, it's about setting ambitious goals, then finding a way to achieve them," he said.

Adding to Bind's executive deck are Bay State biotech aces **Stephen Zale** and **Jeff Hrkach**, former **Alkermes Inc.** executives who serve as VP of development and VP of pharmaceutical sciences, respectively.

Bind is already on the move with 11,000-square-feet of laboratory space sitting in the shadow of **Genzyme Corp.**'s Kendall Square building and a pile of navy-blue laboratory coats stitched with Bind's logo at the ready.

PAST SUCCESS, FUTURE PERFORMANCE?

Bind already is benefiting from Langer's legendary success spinning out companies since the late 1980s.

Polaris has backed at least nine Langer companies, including Cambridge-based **Momenta Pharmaceuticals Inc.** and **Pervasis Therapeutics Inc.**, said **Amir Nashat**, a general partner at the venture capital firm.

After Langer co-founded Pervasis in 2004, it drew in a $12 million Series B investment from Polaris, Flagship and **Highland Capital Partners** in 2005. In March 2007, Pervasis announced it had entered Phase 2 clinical trials for its cell therapy product.

And Momenta, also co-founded by Langer, raised $275 million in institutional financing and went public in 2004.

Bind faces competition from a number of companies working in the nanoparticle space, including California-based **Insert Therapeutics Inc.**, on whose scientific advisory board Langer sits. And both Missouri-based **Kereos Inc.** and Michigan-based **Avidimer Therapeutics Inc.** are also researching nanoparticle-based drug delivery, said Farokhzad.

Still, Farokhzad is confident about Bind's position. "We're off to a rapid start," he said.

Everything's coming up Langer

A partial list of companies that name MIT professor Robert Langer co-founder

COMPANY	FOUNDED	OUTCOME
Acusphere Inc.	1994	IPO in 2005; May 2007 completed Phase 3 clinical trials
Advanced Inhalation Research Inc.	1998	Bought by Alkermes Inc. in 1999 for $114M
Bind Biosciences Inc.	2006	$2.5M funding, Polaris, Flagship
Enzytech Inc.	1988	Bought by Alkermes Inc. in 1993
MicroCHIPS Inc.	1999	$13.4M funding, Novartis Venture Fund, 2007
Momenta Pharmaceuticals Inc.	2001	IPO 2004; $75M funding, Novartis AG in 2006
Pervasis Therapeutics Inc.	2005	$12M Series B funding, 2005
Pulmatrix Inc.	2003	Undisclosed amount of venture capital
TransForm Pharmaceuticals Inc.	1999	Bought by Johnson & Johnson in 2005 for $230M

SOURCE: MHT research