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San Francisco Business Times - August 2, 2010
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SAN FRANCISCO Business Times

Friday, July 30, 2010

Calithera is latest bio venture for Molineaux

San Francisco Business Times - by [Ron Leuty](#)

Big ideas, meet Susan Molineaux.

After leading Proteolix Inc. from inception through mid-stage development of a potential blockbuster cancer drug, Molineaux has \$40 million and cutting-edge science on her side with startup Calithera Biosciences.

It is one of the year's largest venture-funded biotech startups.

Calithera is based on the science of [University of California](#), San Francisco, professor Jim Wells, whose lab discovered compounds that activate enzymes that control cell death. Cancer drugs today indirectly activate those enzymes, called caspases, but finding a way to directly rev them up may create a new way of killing cells in a broad range of cancers while reducing the toxic side effects of chemotherapy.

It is the type of Big Science that Molineaux already has translated into success for investors — and potentially patients — with [Onyx Pharmaceuticals Inc.](#)'s acquisition of Proteolix last November for up to \$535 million. Shortly after, she joined Calithera.

"I'm a risk taker," Molineaux said. "There's probably no super-safe program I've ever been associated with."

From ponds to caspases

The oldest child of a Long Island electrical engineer, who bought his 8-year-old daughter a microscope with which she rushed out to view pond water samples, Molineaux showed more than scientific acumen at Proteolix, said Mark Bennett, Calithera's senior vice president of research.

"She loves brainstorming and white boards, preferably covering the entire wall," Bennett said. "She loves to get input from other people and the white board will be filled, and there's a strategy or decision that's made because of that. It may be what she wanted to do (in the first place), but she listens to everyone."

Bennett worked with Molineaux at [Rigel Pharmaceuticals Inc.](#), where she was recruited after working at [Merck & Co.](#) and two smaller East Coast life sciences companies, and followed her to Proteolix. Over six years, Proteolix grew to 85 employees and captured more than \$60 million in venture financing while developing a drug that blocks an enzyme key in the turnover of cellular proteins.

Work on that so-called proteasome inhibitor as well as a cutting-edge immunoproteasome inhibitor, which could lead to new treatments for rheumatoid arthritis and other conditions, brought a \$276 million upfront cash payment in November from Emeryville-based Onyx.

"In these new companies, where you have a broad platform and several directions for the company to go, it's important for someone with experience to do it — and the scientific acumen to sort out the data and make informed judgments," said Chris Christoffersen, managing partner at [Morgenthaler Ventures](#), which led the \$40 million financing round. The cash is aimed at taking Calithera through Phase I proof-of-concept clinical trials.

"That's not a job that just anybody can do," Christoffersen said.

Right time, place

Calithera also may be touched by kismet.

Proteolix was in acquisition talks with Onyx in September, when Wells published his research in the journal Science. Plus, years ago at Merck, Molineaux was involved with identifying and cloning the first caspase.

"This wasn't too far afield from what she had done in the past," said Wells, who was introduced to Molineaux in December through Larry Lasky, a former Genentech researcher now at [U.S. Venture Partners](#).

Not only did Wells note Molineaux's work at Merck but also that Proteolix was "very clever" about finding the right dosing, formulation and potency of proteasome inhibitors as they tease apart cancer cells from normal cells.

"I suspect we'll have to do some of the same things in these caspases," said Wells, who worked at [Genentech Inc.](#) and whose research led to two other South San Francisco companies — [Sunesis Pharmaceuticals Inc.](#) and [Catalyst Biosciences Inc.](#)

By April, Wells and Molineaux had finalized financing through Morgenthaler, U.S. Venture Partners, Advanced Technology Ventures, [Delphi Ventures](#) and Mission Bay Capital.



“The key is whether a founder can work with the CEO because they have to work together closely, but the venture people have a huge say in whether they agree or not — they have veto power in that they don’t have to fund the company,” Wells said. “Susan was a unanimous choice.”

That included, of course, the vote of Christoffersen, who recalled interviewing Molineaux at Denver International Airport.

“We talked serious science and candidly and openly with great strategic clarity about businesses she’s been involved with,” he said. “I walked out of the interview saying, ‘That’s impressive.’”



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