

Business Development

Published online: 26 January 2006, doi:10.1038/bioent901

▼ Missing: entrepreneurial women in biotech

Crispin Littlehales¹

Crispin Littlehales is a freelancer in Covelo, California

Specialized academic training, seminars and mentoring programs are slowly emerging to woo and equip female biotech entrepreneurs.

It is taken as a given that women are hard to find in the executive suite. But are they equally underrepresented in the entrepreneurial community, too? According to the latest report on Global Entrepreneurship released by Babson College in Babson Park, Massachusetts and the London Business School on January 12, men start far more businesses than women. The report also found that women are on the whole less optimistic, have less confidence in their entrepreneurial skills and are more concerned about failures than men.

Whether this is valid in the biotech field, in particular, is unknown. But this much seems demonstrable: in the life sciences arena, which boasts many great women scientists, there are only a handful of successful women entrepreneurs. The good news is that there is anecdotal evidence that universities and some institutions recognize this disparity and are committed to rectifying the situation¹. Identifying the issue and doing something about it are two very different matters—both for the universities and for women themselves.

Amy Millman, president of Springboard, a nonprofit group based in Washington, DC, which connects women entrepreneurs with funding sources and business opportunities notes, "While women in biotech have zero difficulty defending their product or technology to their peers, they have a hard time selling their capabilities, their expertise and their ability to execute to anyone outside their comfort zone."

Although women widely populate the sciences and medicine in academe, anecdotally, at least, most in the corporate world would appear to be content to function behind the scenes. Oddly, there is precious little data that might help explain why this is so. Conversely, women in the biomedical sciences say the evidence is abundantly clear (at least to them) that in the corporate world a woman must choose between management promotion and motherhood.²

Perhaps it is no wonder, then, that few women venture out to start their own life sciences company. But, *Bioentrepreneur* discovered that women are increasingly signing up for the courses on intellectual property (IP) protection, fundraising, and management and leadership offered through industry groups like Bethesda, Maryland-based Women in Bio and at university-based programs like Stanford's Center for Entrepreneurial Studies in Menlo Park, California.

Everyone we spoke to confirmed that women in biotech are loathe to play the gender card but they say it is impossible to ignore the simple fact that in the academic and corporate setting—there are, of course,



Rabinowitz/Dorf Communications
Connectivity: Lynn Johnson Langer,
Senior Associate Program Chair of
the Advanced Biotech Studies of
Johns Hopkins University



John LeSchofs, Stanford Visual Art
Services

exceptions—the perception (if not the reality) is that a woman with management aspirations does not advance her career by taking time out to have children. Nancy Hopkins, Amgen Professor of Biology at the Massachusetts Institute of Technology (MIT) in Cambridge, Massachusetts, says that 'baby' is considered a four-letter word in the biotech startup community. Even today, women in biology constitute 46% of the doctorate recipients from the country's top 50 biology departments yet only 30% of those women become assistant professors and only 15% achieve full professor status. The reason most often given for abandoning ship is to have more family time. The same holds true in the private sector.

Expanded search: Kristin Najarian,
Assistant Director, MBA
Admissions, Stanford Graduate
School of Business

In an effort to reverse that trend in the academic world, a consortium of nine universities convened by MIT's former president Charles Vest and a group of 19 universities funded by the US National Science Foundation's ADVANCE program are modifying policies and procedures to help women attain the highest ranks of academic leadership while still meeting family obligations. MIT, which is now run by Susan Hockfield, now also offers child-care scholarships, tenure-clock extensions and reduced time appointments for faculty with family demands.

“Perhaps it is no wonder, then, that few women venture out to start their own life sciences company.”

And some of the top business schools in the US have broadened their offerings to include courses on entrepreneurship and leadership, many with an emphasis on biotech² (see [Table 1](#)). Lynn Johnson Langer, Senior Associate Program Chair of the Johns Hopkins Advanced Biotechnology Studies in Baltimore, Maryland, says there is growing interest in giving women the tools and connections needed to become either entrepreneurs or senior-level managers in the biotech industry. Langer is working on a PhD. dissertation focused, in part, on gaining an understanding of what it takes to become a successful entrepreneur and leader in the biotech industry. She acknowledges that universities are making an effort to divert more female graduate students into entrepreneurial and leadership training. But she says that for the time being, there are few female biotech entrepreneurs to analyze.

Stanford has expanded its recruiting efforts to include London, Shanghai and Brazil in addition to five big cities in the US. Roughly 35% of the students at Stanford's Graduate School of Business are women. "We are trying to reach out to women across the globe," says Kristin Najarian, assistant director of MBA admissions. It's a start.

“In other words, the dearth of women entrepreneurs in the biotech community is not a chicken-and-egg quandary.”

Maria Pitone works in executive education at the Wharton School of the University of Pennsylvania in Philadelphia where she directs the Women in Leadership Program, a five-day open enrollment course.

"Research shows that women get to a certain point in the organization and then they opt out," Pitone says.

The implications of all of these perceptions and realities might well constitute correlation more than cause and effect. But the side effects are the same. Regardless of gender, entrepreneurs with limited academic standing or senior-level management experience will find it vastly more difficult to raise capital and recruit talent than those with more fortified bona fides. In other words, the dearth of women entrepreneurs in the biotech community is not a chicken-and-egg quandary.

References

- Waltz, E. "Biotech entrepreneur, educate thyself!" *Bioentrepreneur*, 15 December 2005. http://www.nature.com/bioent/doi/bioent896_doi.html
- Littlehales, C. "Biotech's gender gap." *Bioentrepreneur*, 21 July 2005. http://www.nature.com/bioent/doi/bioent873_doi.html

Web links

Websites referenced:

- [Springboard Enterprises](#)
- [Forum for Women Entrepreneurs and Executives](#)
- [The GEM Report](#)
- [National Science Foundation ADVANCE Program](#)
- [Women's Leadership Exchange](#)

Table 1: Wooing women

University	A sample of courses pitched to women	Website
The Wharton School at the University of Pennsylvania	"Women in Leadership: Legacies, Opportunities and Challenges"	http://www.executiveeducation.wharton.upenn.edu
	"What does it mean to be a Woman Leader?"	
	"Leadership Models in Practice"	
	"Opportunities"	
	"Power and Influence: Negotiating Strategically"	
	"View from the Top: Managing Perceptions"	
Johns Hopkins University Advanced Biotechnology Studies	"Making the Vision Real"	
	"Creating a Biotechnology Enterprise"	http://www.biotechnology.jhu.edu
	"Product Development: From Research to Manufacturing"	
	"Economic Aspects of Biotechnology"	
	"Regulatory Processes for Domestic and Global Biotech Products"	
Stanford Graduate School of Business	"Legal Aspects of Biotechnology"	
	"Entrepreneurial Opportunities"	http://www.gsb.stanford.edu
	"Intellectual Property and its Effect on Business"	
	"Formation of New Ventures Entrepreneurship and Venture Capital"	
	"Managing Growing Enterprises"	
	"Evaluating Entrepreneurial Opportunities"	
Kellogg School of Management at Northwestern University	"Strategy in Entrepreneurial Ventures"	
	"Women's Director Development Program"	http://www.kellogg.northwestern.edu
	"Women's Senior Leadership Program"	

SPRINGER NATURE

© 2019 Nature is part of Springer Nature. All Rights Reserved.

partner of AGORA, HINARI, OARE, INASP, ORCID, CrossRef, COUNTER and COPE