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**Dave Jensen**



# Understanding the Roller-Coaster Global Biotechnology Job Market

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Analyzing the market for scientists is a tough job, much like the Indian fable of the blind men trying to describe an elephant. As you'll recall from this old story, each of the six blind men stumbled onto a different part of the beast, giving various impressions of the animal. To one fellow, who grabbed onto the trunk, the elephant was much like a snake. To the blind man who got the ear, it was a creature resembling a fan. All six came up with different descriptions of the elephant.

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Although each blind man's idea was based on a partial truth, they all missed the composite view of the animal.

Similarly, the job market that exists today can be robust for one scientist and absolutely terrible for another. There are global trends taking place that work in combination with dozens or hundreds of "niche job markets," each with its own ups and downs. Ask six scientists what their experiences were, and you'll get six completely different views of the same "animal." In my column this month, I point out some of these global trends and quantify the employment numbers, as well as give you some suggestions about how you might deal with these issues.

### **Global Trends: Growth and More Growth**

As everyone knows, the need for scientists to work in the global life sciences industry has grown dramatically and this will continue. Roger Shamel (Consulting Resources, Lexington, MA) makes a living analyzing these growth trends. His employment numbers are:

- 2001 Worldwide Employment: 255,000 employed in biotech companies. Adding other types of companies and institutions that do some "biotech" research (pharmaceutical firms, government labs, and private research institutions) brings this number to 400,000 current biotech employees.
- 2011 Worldwide Forecast: Total worldwide biotechnology employment numbers will increase to "just over" 400,000. When taking into consideration all other types of companies and

institutions doing "biotech" research this number increases to 750,000.

Although I begin the analysis with these very positive growth numbers, there are other issues that are bubbling under the surface that may affect us this year and possibly into the next. They aren't all rosy.

### **Recession Thinking Is Affecting Large Company Hiring**

Larger companies, the big pharmaceutical firms are a good example, have made very significant cutbacks in their hiring numbers this year and into 2003. In some cases, we've seen these large companies take a rough ride in the stock market. Even the best companies have taken a hit. Merck stock had been at \$88 a share not all that long ago--today's price is close to \$30 off that mark.

In addition, some major drugs are coming to the end of their protected lives, and along with this comes the potential for generic competition. The toughest kind of competition for drugmakers is when a product goes to "over-the-counter" status and anyone can begin competing. That's what may happen to Claritin, Schering-Plough's \$3 billion baby, and similar drugs from Pfizer and Aventis. These issues have put the pharmaceutical industry on notice that the next couple of years could be difficult. As a result, the job market has retracted substantially for jobs with the larger corporations.

Even while saying this, however, I must remind readers that large companies such as these spend billions of

dollars on research over the course of a year. Twenty years ago U.S. pharmaceutical companies spent \$2 billion on R&D. In 2001, it was \$26.4 billion. Even rolling back that figure a bit for 2002 still means that there will be over \$20 billion spent, which is a figure that can still represent many new hires across the board.

## **Cash Is Still Finding Start-up Biotechnology Companies**

Here's another dichotomy. Although major corporations and both mid-sized and larger biotech companies are feeling a bit recessionary, the start-up company phenomenon is still filling biotech regions with "newbies." A recent search through the Internet found that dozens of new companies were funded in just the first few weeks of January alone. The box below shows the partial results of a 2-minute search on [VentureReporter.Net](http://VentureReporter.Net):

- Renovis Raises \$34,300,000 [San Francisco, CA]  
Renovis Inc. focuses on neurological and psychiatric diseases.
- Medinox Raises \$13,800,000 [San Diego, CA]  
Medinox is developing new small-molecule drugs, including drugs that block nitric oxide.
- Syrrx Raises \$18,500,000 [San Diego, CA]  
Syrrx has designed a proprietary automated structural proteomic technology.
- Genoptix Raises \$17,000,000 [San Diego, CA]  
Genoptix develops optical technologies for cellular analysis and study.
- NeurogesX Raises \$22,000,000 [San Carlos, CA]  
NeurogesX is focusing on the development of products for the treatment of pain.

As a job seeker, you need to know if this start-up company life is for you. Previous articles on Next Wave, [Scientific Careers in Biotech Start-ups](#) and [The Start-up Environment: Is It for You?](#) may be just what you need to determine if this market should be a goal of yours.

### **Picky Hiring Managers Are Getting Even Pickier**

Recently I went to a sales meeting for 200 recruiters. I find it amazing that whenever a few recruiters get together socially, the talk always gets around to the fact that hiring managers are "picky." This is more than the venting of job frustration. Hiring managers get picky when they decide they need to find the ultimate specialist for each and every job. Or, they get picky when they decide they will hire only from their own backyard, instead of looking at good candidates who come from another region. They also seem "picky" because they just don't have a lot of free time to manage the interviewing process:

"I feel that companies will lengthen the hiring process this year, because for one thing, managers are now wearing many hats and they don't have as much available time to interview," comments Matt Takahashi of Executive BioSearch. All recruiting firms have seen this trend developing--it can be *so* difficult just to get everyone lined up for interviews.

"Also, they are waiting longer for the right person," Matt continues. "Last year, our hiring managers were bringing on new staff who had *most* of the qualifications for the position, but now they are looking for only the *ideal*

candidate." I can feel his pain. We go through the same process at our company. One of the golden rules of recruiting is that if you find candidates with 70% of what a company is looking for, they are happy. In the last 6 months, this has moved up to 80% or 90% for the first time ever.

## **Niche Hiring Becomes Even Tighter: Enter "Pinpoint Hiring"**

Niche hiring can be frustrating. As a Next Wave reader, you've been exposed to articles about people who are cross-trained in numerous skill areas. What a shock it can be when you hit the job market and the only companies willing to hire you are the ones who will put you to work in some very narrow area of science! Sure, the cross training you went through will get you up the ladder faster, but it is your technical diploma and your hands-on experience in some tight niche that companies look at first.

Here's an example of a job ad and how "niche hiring" has changed the job market over the years:

- 1985: Seeking a Ph.D. Cell Biologist ...
- 1990: Seeking a Ph.D. Cell Biologist with CHO cell experience ...
- 1994: Seeking a Ph.D. Cell Biologist with CHO cell and bioreactor experience ...
- 1998: Seeking a Ph.D. Cell Biologist with CHO cell background and hands-on experience with bioreactors of over 200-liter scale.
- 2002: Seeking a Ph.D. Cell Biologist with CHO cell background and hands-on experience with

bioreactors of over 200-liter scale. Must have thorough knowledge of serum-free media development.

### **So What Does This All Mean for Me?**

As you can tell, one of the toughest questions you can ask a recruiter is, "How is the job market these days?" I get asked that all the time, and it takes a 1500-word dissertation to get down to this bottom line: You make your own job market. It is driven by the choice of your discipline and field of study, as well as by the flexibility and creativity that you bring to your job search.

Because companies use "pinpoint hiring" religiously, there is a certain aspect of the job market that will be inflexible and will depend upon whether you are in a "hot" discipline or something with less industry demand. And yet, no matter what the size of the pool of employers waiting to hire you, there *are* things that you can do to better your odds. First off, know what it is that you do well and what it is that you want to do with your career. You'll be asked this question regularly, and those who can speak well of their strengths and who have a sense of purpose to their career "mission" will do the best in the job market. Secondly, do the research. Don't send letters only to companies that fork up the money for an ad in [Science](#) or [Nature](#). Root out the new companies as well--find the 30 biotech companies that just got funded this month and start networking!

Lastly, remember my elephant story about the six blind men from India. Think of this the next time you ask one

of your colleagues how she did in the job market. Remember that you are only getting one piece of the story ... *your* job market will depend to a great extent on your ability to see the whole picture and adjust your plans accordingly.

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