

## THE BEST PREPARATION FOR A SCIENTIST JOB SEARCH

By Grace H W Wong

Grace Wong is chief scientific officer of ActoKine Therapeutics and chief executive officer of Student Vision Landing a good job in scientific research is like climbing a mountain—you need talent, a mix of skills, experience and a good plan to get to the top. And like climbing a mountain, there are no shortcuts—if you do not possess the talent, skills and experience that research organizations or companies are looking for, no amount of networking or referrals will get you hired.

Prior to entering the job market, it is essential to develop your scientific skills and publish, as an indicator of your hard work and potential future productivity. Select a good mentor with a strong record of publication because they will be likely to publish with you.

### **The importance of publications**

There is no substitute for high-quality publications in the eyes of recruiters, and publication is vital to sustaining a competitive advantage during your career. A good curriculum vitae (CV) with a solid record of publication concisely encapsulates your skills, experience and potential, even to a total stranger. Publishing a good paper is not a miracle. It is the result of hard and determined work, good experimental design, and reproducible results. Don't delay. The more publications you have, the better your chances and prospects as a scientist.

Hiring managers, especially in the biotechnology and pharmaceutical industries, put a great deal of emphasis on experience and practical skills in addition to publications. A discovery that leads to a patent may carry more weight than a journal publication. But, if your work bears fruit and you file a patent or publish in high-quality journals, you will not need to look for a job because jobs will come looking for you. Nothing succeeds like success. Always keep in mind that there is no substitute for productivity, as demonstrated by quality publications and patents.

### **Selecting good mentors**

As high-quality publications emanate from high-quality laboratories, find a good mentor in a well-equipped lab and surround yourself with smart people you can collaborate with, who will challenge you and from whom you can learn. Choose a mature mentor who is secure in his or her position, so they can afford to let you take credit and give you the opportunity to showcase your skills and accomplishments. David Goeddel, my mentor at Genentech, was extremely accomplished and deliberately set up his lab members to take credit for projects and to give presentations in his stead.

My other mentors include Sir Gus Nossal, who saw good things in everyone and welcomed me into his famous immunology 'family'; John Schrader and Ian Clark Lewis, who taught me about the beauty of cytokines, which will remain with me for the rest of my life; Gordon Vohar, who advised me that it was more important to produce a medicinal drug than to publish a paper; Linus Pauling, who told me to speak up for my ideas and not to be afraid to be different from everyone else; Silvano Fumero and Tim Wells, who allowed me the freedom with which I was able to generate important data for Serono; Jim Strickler and Steve Arkinstall, who appreciated out-of-the-box-thinking and stuck their necks out, time and again, to protect me as I swam against the current; Joost Oppenheim of NCI, who advised me that, "The all-important serendipitous discoveries can be made only by those with an open and questioning attitude"; and Claude G. Biava and Chip Allee of ActoKine, who taught me how to transform basic science into life-saving drugs.

Be loyal to your mentors, and not just because you will eventually need their recommendations in the future (though such recommendation can be a major asset in your job search, particularly if your CV is a little weak in spots). True mentors will support you throughout your career. If your mentor is well known and respected, some of that will rub off on you, by virtue of association. "Mentoring brings the best out of people and helps their productivity," says Franz Hefti of Rinat Neuroscience. "Without mentoring, a sink-or-swim environment evolves that wastes and destroys human talent."

### **Academia versus industry**

In general, academic scientists tend to do more basic research, whereas scientists in industry focus on drug discovery and development. Martyn Banks of Bristol-Myers Squibb says, "The major difference right now between jobs in industry and academics is the greater autonomy in choice of research topic for the latter. Also, industry is more applied in general than most academics—it's drug development. Plus, in mature companies, chemists really run the drug development process most places". And according to Rino Rappuoli of Chiron, "In academia you can publish on any subjects who are trendy. The paper is the ultimate goal of the work. In industry you can only work on the problem you want to solve. The publication is not the end, but the beginning of the real work."

So, if your interests match your organization's direction and you work hard, with a little good fortune you will find success. "Cutting edge science is a harsh profession and only a deep love of the topic and process can get one through the daily tumbles," says Jeff Browning of Biogen Idec. If you are good at what you do and valuable in your job, you will eventually rise above. When you have creative ideas and get results, you also get clout. This will not just happen—you have to work to earn it, no matter whether you are in academia or in industry.