An Industrial Research Versus Academic Research

Dr. Vivek Priy Dave, PhD,
Central Lab, R and D Center,
Boditech Med Inc, 1144-2G-Tech Geouduri, Dongnaemyeon,
Chuncheon, Gangwon-do 200-883, South Korea.
E mail: vivek_priy2000@yahoo.co.in
Telephone: +82-33-2431411 Fax: +82-33-2439373
(Received August 28, 2013; Accepted October 19, 2013)

One thing that continually amazes me is the amount of emails I get from my previous students, juniors and life science friends for carrier advice. Every Life Science and Basic Science graduate, postgraduate, PhD scholar and Postdoctoral aspirants is always in a big dilemma in selecting a research carrier. Which job will give them most freedom (research wise)? More time with family or more time for the outside interest? Which job will pay them higher salaries and long term job securities? After completing my research training (PhD) from Post Graduate Institute of Medical Education and Research, Chandigarh, INDIA, I opted the academic research at Amity University India. Serving for one year in academic research, now I am working as senior research scientist at Boditech Med Inc., South Korea in an industrial research environment. I would like to share my experience and point of vision towards academic and industrial research which will help the basic science and life science students to choose their research carrier.

In a broader spectrum under academic research setup you are expected to be a self-starter, comfortable with self-promotion, able to work independently and developing your own research problems. However, in an industrial research setup you are expected to drive yourself, but with a view towards a common goal of company. You must have an understanding of what is expected of you as a member of research team based upon the objectives set at the beginning of your appointment.

Schedule in academia and industrial setup
This depends on a particular company/institution and a particular nature of job. While some may think that schedules are tougher on academic side, some industry jobs also require a great number of hours during week’s days. Contrary some may feel greater sense of freedom on the academic side because the hours are flexible, while other may feel more balance in industry as the hours are more structured. So this depends largely on person and work situation.

Work style in academia and industrial setup
I. Freedom
In academia, you have lot of freedom to do what you want, to set your own agenda. In industrial research you have still lot of freedom but you are much more constrained. You actually need to answer company for what you do.

II. Funding
In academia you frequently need to devote huge amount of your time to getting funding for your work. In industrial research there is still a serious amount of work involved in getting and maintaining fund, but it’s not the same order of magnitude as in academia.

III. Time and scale
Academia projects frequently have to be limited on scale, you have finite resources, but you can plan out a research agenda in a year advance; in industrial setup you have the access to resources that an academia can only dream of, but you need to produce results now-forgot about planning what you will be doing five years from now.

Compensation in academia and industrial organization
There is no difference based on the level of experience, promotion etc.

Last words of wisdom
Benefits in academia
A sense of autonomy, an excitement around novel discoveries, intrinsic motivators, travel and opportunity to know people around world however you may face stress of grant renewal and pressure to publish or perish.

Benefits in industry
Potential benefits to patients of what you are working on, fairly immediate application of science, access of resources, and connections to other scientists around you but you downside you cannot investigate the research areas of your personal interest.

Last but not least life science and basic science students feels about a saturation in the academia and industrial organization in this bleak economic climate but I would like to say there is never a total hiring freeze in industry, so there are always opportunity for people who are smart, well trained and have good ideas. In academia positions are slightly easier as there are so many private institutions and as universities need to maintain research validity, so hiring will always be priority.