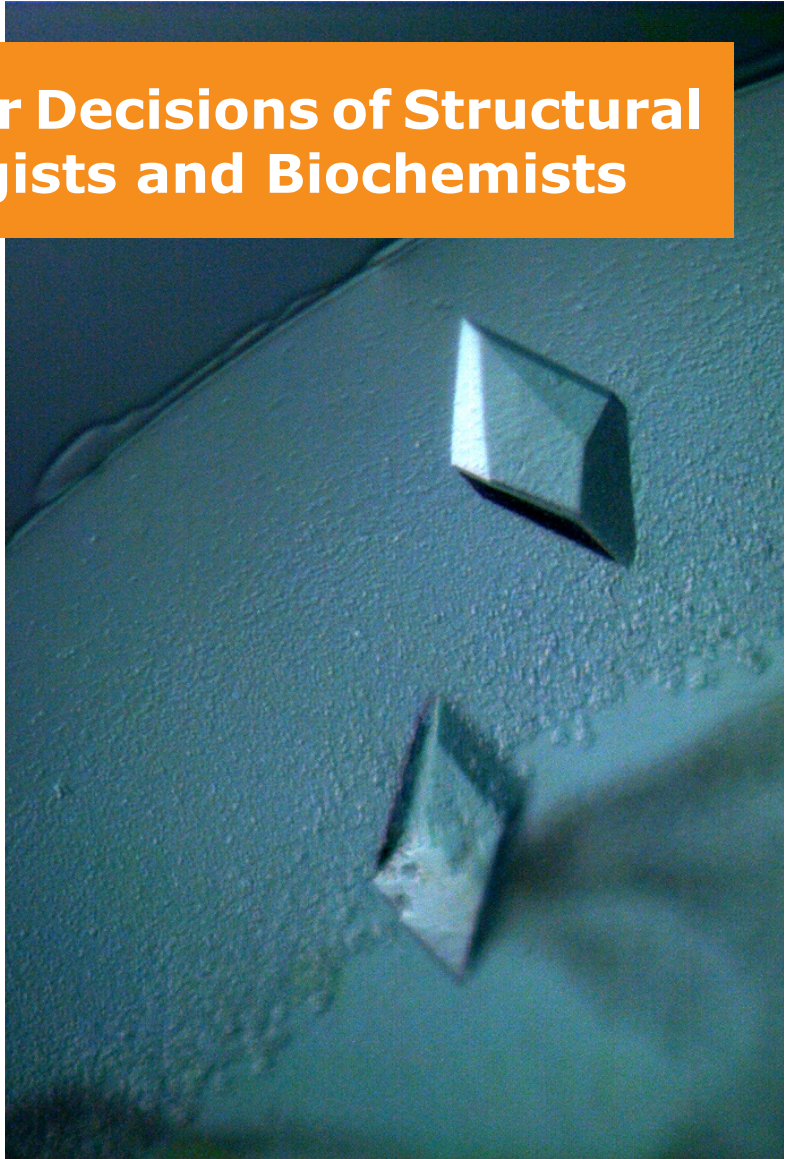


Brochure

Career Decisions of Structural Biologists and Biochemists



University of Zurich
Career Services

 **STRUCTURAL BIOLOGY**
National Center of Competence in Research

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Editorial

What is your next career step? Whether you have a vague idea yet, feel that there are just too many interesting options, or have quite specific goals in mind already: This question is not an easy one. A clear picture of your own preferences, goals, strengths and weaknesses is equally important as a good overview on the opportunities and some cleverness to get a desired job. But what about coincidence? How important are soft skills? Is a post-doc necessary to start an industry career?

This brochure will provide you with inputs for your decision process. NCCR Director Markus Grütter talks about his professional life between industry and academia, and points out what has been important for him in his career decisions. You will further find an overview on job areas for biochemists and structural biologists, and reading suggestions will help you to get more information on those areas that interest you most. Specific extracurricular skills are needed in all job profiles. How to analyze and develop your skill profile is described in the article by Pamela Alean-Kirkpatrick. Your personal network of colleagues, friends and family is an invaluable resource for support and feedback. Barbara Eglin suggests to invest early enough in your network and shows how to do it. And: Kelly Scientific points out what makes a convincing application dossier.

We hope that this brochure will be useful for you, and wish you all the best for your current projects, your graduation, and your next career step!

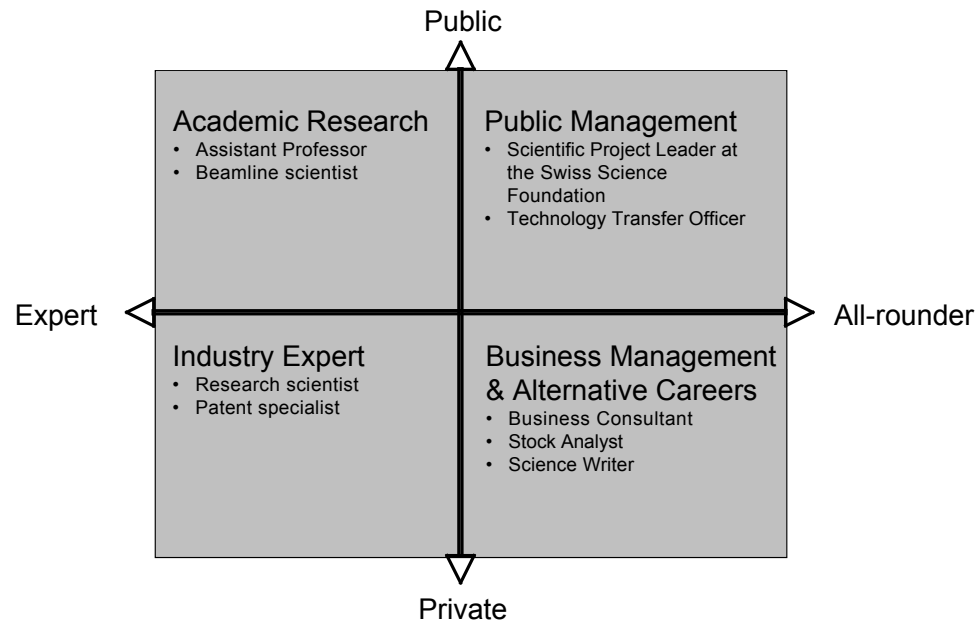
Natalie Breitenstein

Patrick Sticher

Career Opportunities for Structural Biologists and Biochemists

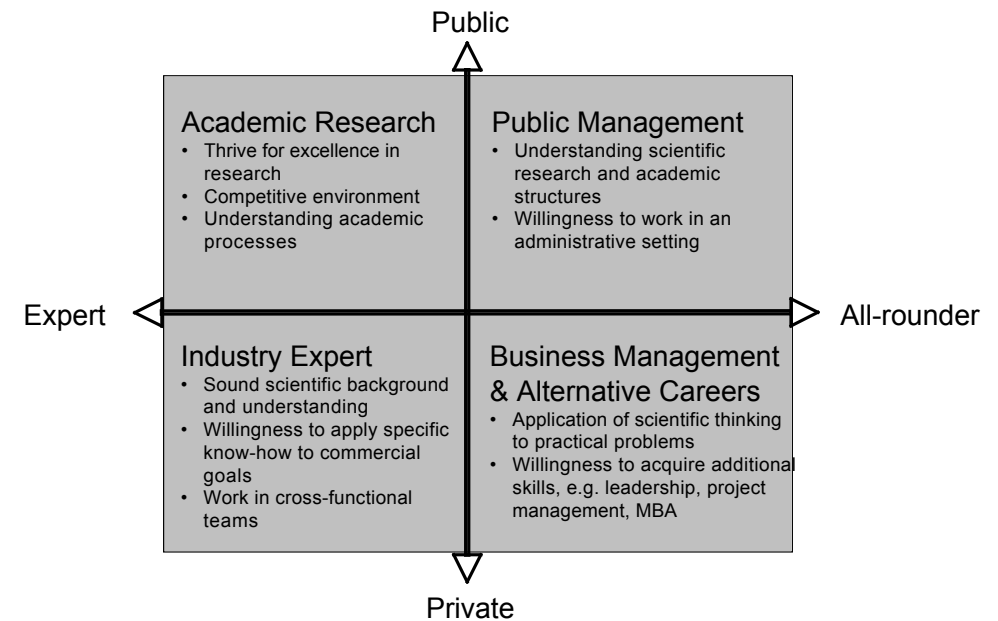
There are more career options for structural biologists and biochemists than you would think. The following matrix is intended as an overview to bring some order into the career options you have. They can be classified into four different kinds of career depending on job function (from expert to all-rounder) and job area (from public to private). In which quadrant do you see yourself?

The Life Science Career Decision Matrix

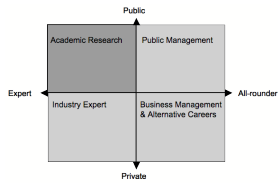


Each career needs specific skills apart from the expertise in structural biology and biochemistry. In the following matrix you will find some examples of skills that you may need to fulfil the respective function.

Required Skills



The following list is our try to fill up the matrix with some jobs and careers to give you an idea of your career opportunities.



1. Academic Research and Education

1.1 Academia

- Post Doc
- Group Leader / Senior Scientist
- Assistant Professor / Tenure Track
- Associate / Full Professor

1.2 Public Research Institutes

(e.g. EMBL, Paul Scherrer Institut, SLS, Diamond Light Source, Swiss Institute of Bioinformatics)

- Group Leader / Research Scientist
- Beamline Scientist
- Head of Technology Platform

1.3 University of Applied Sciences

- Lecturer
- Professor

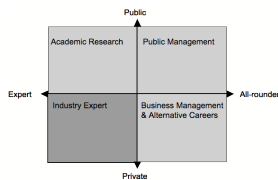
2. Industry Expert

2.1 Research and Development

- Research Scientist
- Development Scientist
- Bioinformatics / Biocomputational Scientist
- Group Leader, Department Leader
- Chief Scientific Officer
- Technology Expert

2.2 Other Expert Functions

- Medical Advisor
- Clinical Research Ass. / Clinical Trial Coord.
- Pharma Registration / Regulatory Affairs
- Quality Control / Quality Management Officer
- Patent Expert / Patent Lawyer
- Technology Expert / Manager
- Production Manager
- Application / Product Specialist



3. Public Management (Public Sector and Non-Profit Organizations)

3.1. University Administration

- Scientific Coordinator / Project Manager
(e.g. Project Manager EU Projects, EURSEARCH, Manager of a Center of Competence, Department Manager, Coordinator of a Technology Platform)
- Teaching Coordinator
- Coordinator of Continued Education
- Technology Transfer Officer
- Other Staff Positions
(e.g. Fund Raising, Communication, Strategy, Staff of Vice President or Rector)

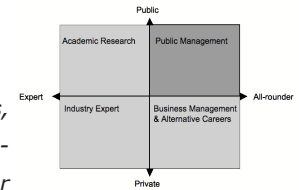
3.2 Government Administration / Governm. Agencies

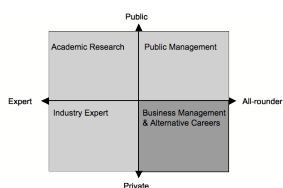
(e.g. Swiss National Science Foundation, State Secretariat for Education and Research (SER), State Secretariat for Economic Affairs (SECO), The innovation promotion agency (CTI), Federal Institute of Intellectual Properties (IGE))

3.3 Academies, Organisations, Foundations, Societies and Associations

(e.g. Swiss Academy of National Sciences, Swiss Academy of Technical Sciences, ETH Rat)

Extra-occupational training possibility
Master of Public Administration
(e.g. Univ. of Berne, Lausanne, ZHW)





4. Business Management & Alternative Careers

- 4.1 Entrepreneur / Company Founder
- 4.2 General Manager
- 4.3 Business Development Manager
- 4.4 Patent Lawyer
- 4.5 Marketing: Product Manager, Marketing Manager
- 4.6 Sales
- 4.7 Corporate Communication, Public Relations
- 4.8 (Biomedical and Scientific) Consulting
- 4.9 Executive Search
- 4.10 Writing and Publishing
 - Technical Writing (<http://stc.org>)
 - Science Writing (<http://www.nasw.org>)
(e.g. Newspapers, Magazines, Public Information, Freelancers)
 - Editing/Publishing
 - Business Information Services (Information Business, Strategic Information)
 - Library, Documentation and Information
- 4.11 Finance and Insurances
 - Investment Banking
 - Research Analyst
 - Venture Capitalist
 - Risk Management
 - Underwriter (Re-Insurance)
- 4.12 Others
 - Environmental Management
 - School Teaching, Science Education
 - Self-Employment

Some extra-occupational training possibilities

Master of Business Administration

(www.mba-studium.net)

Patent Law (e.g. www.masip.ethz.ch)

Science Journalism (<http://www.maz.ch/>

[Journalismus/kurse.asp?n=02020_08](http://www.maz.ch/Journalismus/kurse.asp?n=02020_08))

Books

Academic Careers

- A. Leigh DeNeef, Craufurd D. Goodwin (eds.). 2007. The Academics Handbook. Duke University Press
- Julia Miller Vick, Jennifer S. Furlong. 2008. The Academic Job Search Handbook. University of Pennsylvania Press
- Jeremy M. Boss, Susan H. Eckert. 2006. Academic Scientists at Work. Springer

Alternative Careers

- Michaela R. Drapes and Nicholas R. Lichtenberg (eds). 2008. Vault Guide to the Top Pharmaceuticals & Biotech Employers. Vault Career Library
- Toby Freedman. 2007. Career Opportunities in Biotechnology and Drug Development. Cold Spring Harbor Laboratory Press
- Cynthia Robbins-Roth (ed.). 2006. Alternative Careers in Science. Leaving the Ivory Tower. Elsevier Academic Press
- Peter D. Stonier (ed). 2003. Careers with the Pharmaceutical Industry. Wiley

Websites

www.academicjobseu.com

www.phds.org

www.eurobiojobs.org

sciencecareers.sciencemag.org

www.careerservices.uzh.ch

www.swissbiotech.org

www.jobvector.com

www.telejob.ethz.ch

www.lifesciencejobs.com

www.zukunftschancen.ch

www.lifesciencesworld.com

SNF Grants for Junior Scientists

- Fellowships for prospective researchers
 - Marie Heim-Vögtlin Programs (for women scientists)
 - Ambizione
 - SNSF Professorships
 - International short research visits
- www.snf.ch/E/funding/Pages/default.aspx

„I always wanted to do things I really liked“

NCCR Director Markus Grütter pursued an industry career for fifteen years before becoming a full professor of biochemistry at the University of Zurich. In this interview, he talks about his most important career decisions, the major differences between industry and academia and his recommendations.

Interview by Patrick Sticher

Markus, what have been your most important career decisions?

At high-school, I considered natural sciences, medicine or music as my profession. Life as a music teacher - which seemed a very likely option to me when choosing this direction - didn't appeal to me, and I feared that I wouldn't like the anatomy courses in medicine. So I studied chemistry at the University of Basel. Chemistry was my favorite subject at high-school, and it promised an attractive professional perspective.

When I graduated four years later, molecular biology had just emerged as a new research field that immediately attracted my interest. The Biozentrum in Basel was a new institution offering great possibilities in molecular biology and biophysics. So I changed my subject and started a PhD project on an adenovirus protein. This project involved work with protein crystals which fascinated me from the beginning, and

led my way into protein crystallography.

What key factors influenced your decisions?

I always wanted to do things I really liked. This is crucial. Equally important is of course talent. You know from school or your time as a student where you are able to achieve results. I knew that synthetic chemistry wasn't my strongest subject, but I was confident about my analytical and technical skills to effectively address biological questions by using x-ray crystallography methods.

Did you always decide out of the moment, or did long-term goals play an important role for you?

My decisions were motivated by my next career step. After finishing my dissertation, I felt that my education was incomplete. I had acquired expe-

rience in biochemistry, biophysics and protein crystallography, but was eager to learn more about specific methods in structural biology and data evaluation. So I started to look for a post doc position. It was at that point, that I realized I wanted to be a research scientist. Before then, I was uncertain about my professional future and checked several options such as being a high-school teacher.

“It is all coincidence” is an opinion often heard regarding career planning. How important is coincidence?

The specific projects and job offers you receive are by chance, but your basic career choices are not coincidence. You have to be aware of the developments in your area to make your decisions. I realized that molecular biology and protein crystallography were completely new fields and I expected fascinating research opportunities. It was a coincidence that I graduated just at that time, but it was my deliberate decision to accept the challenges of working in a completely new research area. And: Each decade offers similar

great opportunities for scientists. Today, as a student, I would probably be interested in stem cell research.

Was it easy to change your subject from organic chemistry to structural biology?

The obvious way would have been to work towards a PhD in synthetic organic chemistry at the same place where I submitted my master thesis, as many of my colleagues did. To be accepted as a PhD student at the Biozentrum, I had to take courses in molecular biology

and pass some tests. Starting all over in a new field is a risk, but I had a very strong motivation. I was lucky to see that biochemistry was indeed my passion, and that I was successful in this field.

You did a post doc in the lab of Brian Matthews in Oregon. Besides the specific scientific training you obtained, what are the benefits of those years?

A post-doc training offers a big challenge: you have to prove yourself in



Markus Grütter

a completely new and competitive environment. You do not get much help, and have to get things going on your own. If you succeed, you gain a boost in self-confidence and independence. I recently was on a sabbatical at SCRIPPS, which reminded me strongly of my post-doc years, and again, I gained a lot from the experience. Of course, a strong motivation and a good portion of willpower are necessary to succeed, particularly if you go to a top university, which you should do to profit most. Another aspect is the opportunity to get to know another lifestyle. In the States, my frequent concert visits came to an end. The Californian lifestyle I experienced included working, surfing, jogging, and dining-out in ethnical restaurants.

Why did you accept an industry position at Ciba Geigy afterwards?

I first returned to the Biozentrum as an “Oberassistent”. We had small children then, and I wanted a longer-term job perspective than academia offered. I was on temporary assignments, and an academic career appeared uncertain to me. So I started to look for industry positions. Another factor was that my projects at the Biozentrum were too academic, and I wanted to contribute to the development of novel medicines. When Ciba Geigy was hiring staff for its new biotechnology sector, I successful-

ly applied for a research position.

What were your duties at Ciba Geigy?

I started as head of a biopharmaceuticals lab where I was responsible for two technicians. Since molecular biology was new in the company, we could establish our lab relatively fast as an expert unit for protein purification, and I gradually grew into functions with increasing responsibilities as a project leader. At times I managed a team of fifty people. This involved a lot of managerial duties, but the focus remained on research, which was important for me. Overlooking an industry research project and directing an academic research group are similar roles I liked.

Research is very important for you.

Did you ever evaluate alternative careers in industry?

Yes. After my post-doc, I was offered the position of technology expert and consultant to the Research Director of Sandoz Pharma, Jürgen Drews. This would have been an interesting and well-paid position. Although Jürgen Drews was about to offer me the position, he was skeptical about whether I would be happy in a management position outside research and particularly without the practical work in the lab. Indeed, I became more and more uncomfortable with the idea, so I declined the offer.

This decision was supported by an external view on your personality. How important is advice by others to you?

Honest advice is invaluable. Of course, you have to know what you want, and make your own decisions: When I was looking for a post-doc position, I wanted to avoid a slave-driver boss, and live in a mountainous area in the States. With these criteria in the back of my mind, Brain Matthews Lab was recommended to me by several people at the Biozentrum. Brian was one of the first crystallographers together with Max Perutz and had an excellent reputation both as a scientist and group leader and soon was my first choice. And I made the right decision: Brian became one of my most important mentors. He is an excellent teacher, established an exemplary scientific culture in his lab, and above all is a person of absolute integrity. Integrity is very important and must never be compromised by ambition.

Management duties tend to become more and more important during a career. How is your experience in this respect?

There were several instances, when I gradually moved into management positions. As a project manager, I was given the responsibility for the development of a product in a clinical

phase. This involved one hundred percent management duties. I didn't like the role of overseeing people in a field where I was not an expert myself. My credo was to work in positions where I was able to bring in my expertise. So I strongly signaled my wish to abandon this position, and I was given the opportunity to build up the company's structural biology research unit.

During your time in industry, did you always maintain your contacts to academia?

Yes. First of all, I was a lecturer at the University of Basel during all those years. Then, I was keen to publish in scientific journals. In collaboration with the Biozentrum, I was able to determine the structures of a number of proteins that we investigated at Ciba, which resulted in a number of publications. Over the years, I had several opportunities to return to academia, but turned down most of them since I liked my position in industry. Nevertheless, the independence I gained from the company in this way was a strong motivation for me to maintain my contacts to academia.

You have been in industry for 15 successful years, before you changed to academia and became a full professor of Biochemistry at the University of Zurich.

With the merger between Sandoz and Ciba Geigy to Novartis, we had to arrange us with a completely new organization structure and redefine our job descriptions. All my options would have led me into management positions and would have prevented me from working scientifically, let alone publishing my results. Even before the merger, since the early nineties, the freedom for scientific research was more and more restricted. So it was a great opportunity for me to change to the University of Zurich in 1995, and start a structural biology group.

Would you expect such a change to be possible still today?

It depends on your research field. There are some biologists, medical scientists, or experts in innovative life science technologies, who recently made this move. I also know a few Novartis chemists who are ETH Professors today, but it may be more difficult in this field. You definitively have to be an excellent scientist with a very good publication record. And getting out publications in industry needs considerable fighting for it and the will to use a lot of your spare time and weekends for the work.

What are the major differences between a career in industry and academia?

In industry you are embedded in projects defined by the commercial goals of the organization. I never considered this a problem, because this frame provides many interesting projects. You have to avoid becoming a service provider, but define collaborations that allow you to contribute intellectually with your expertise and help to bring a project forward. Successfully collaborating in interdisciplinary teams is crucially important in industry. In academia you have to be fully convinced of your research project, and must push it through on your own. Nobody warns you if you are on the wrong way. So you are independent in your work, but the risk is considerable. You have to acquire the necessary grants on your own, and must proof yourself again and again. Other aspects are of course teaching and the work with junior scientists that is much more important in academia.

What about competition?

In industry, you primarily compete with other companies for the market shares of substitute products, but this does not affect you so much up to middle management. In academia, the competition is direct. A publication in your area is hard to take, and has an immediate effect on the success and future of your project.

Are there any factors that are equally important for a career in industry or academia?

You have to develop an instinct for innovative and feasible projects with a high success factor. Your priority is to contribute to such projects in the best possible way. This is difficult, and it does not work out each time. For me, a good example is, when I established structural biology at Ciba Geigy. I analyzed the projects in the company and took care to collaborate with those primarily where we could contribute most.

I think that willpower is very important, combined with a strong belief and trust in yourself to achieve your goals. If a student asks me after three failed experiments, how many times he would have to repeat it again, this is the wrong attitude. I start a project and am convinced that it will work out. At the same time, and this may be difficult, you have to be a careful observer of the outcome of your experiments. You must not stubbornly stick to your plans. If the experiment puts a question mark to your hypothesis, you must have the courage to learn from this result and adapt your plans. And: you must be ready to fight for your ideas, convincing your superiors with your arguments.

Are these principles applicable to careers outside research?

Definitively. In any field you have to burn for your task to be successful. A shale attitude will never lead you to success. Of course, if you do not like experimental work or realize that you have difficulties with achieving your goals in the lab, you have to look for other career options. I would like to point out another important factor: sharing. If you are weak in an area, you have to be ready to get help from people who are better than you. So you share the workload in a project by combining different expertise, and you will be able to share the success in the end.

Where do you see interesting career alternatives for structural biologists who do not like the lab work so much?

There are many options: A number of people with life science backgrounds are in sales, marketing, or similar functions in companies like Tecan. Others, who prefer a position related to written documentation, may assume a career in regulatory affairs, patenting or a government position. Another option may be a high-school teacher. Or working in a bank or insurance company as an expert for the biotech sector. For all of these functions, you bring your expertise in biochemistry and combine it

with other specific skills.

What would be your advice to a PhD student?

If possible try to finalize your academic training before the age of 30, which will give you the necessary time in life to try out different options. This experience will widen your horizon and

help you shape a clear picture of what you like doing best and where your strengths are. The question of finding and living your motivation against all odds will be important during your entire professional life.

Markus, thank you very much for this interview.

Markus Grütter is Director of the NCCR Structural Biology. He has been a full professor of biochemistry at the University of Zurich since 1995. Before, he held several industry positions at Ciba Geigy and Novartis. He trained at the University of Basel, the Biozentrum Basel, and the University of Oregon Eugene. gruetter@bioc.uzh.ch

The interview was held by Patrick Sticher who is the Scientific Officer of the NCCR Structural Biology Program. He is an environmental microbiologist, and held positions in quality management, and business development of a Pharma company before accepting his current position. sticher@bioc.uzh.ch

Developing a Comprehensive Skills Profile

Dr. Pamela Alean-Kirkpatrick, Academic Support Office, Division of Biology, University of Zurich

Introduction

In an article that appeared in the Times Higher Educational Supplement in January 2007, Janet Metcalfe, director of UK GRAD, was quoted as saying:

«There is a schism between what employers think PhDs bring and the skills they actually have but are unable to communicate to employers»

For me, this statement highlights the general lack of awareness on the part of doctoral students about the range of skills they possess once they finish their PhD. During the PhD, the focus of PhD students is (and must be) the generation of new knowledge in a specific field. At the end of the doctorate, the student is an expert in his/her field and has proven ability of carrying out independent academic research. With the undisputable focus on scholarship of the discipline during the doctorate, there is, however, a danger that a PhD student remains unaware of other skills that are being developed as “by-products” of the research process.

Below, I specifically address this deficit and highlight an approach to show present-day PhD students how to become more aware of what skills they develop during their doctorate, and also encourage them to take advantage of learning opportunities to fill gaps and develop their skills further.

Demands of the working world

Why is it important to “communicate one’s skills to employers”? For those who remain in a research environment, what kinds of skills are needed here to be successful? Not all PhD students will remain in research forever; some will go on to do a postdoc and even fewer will make it to a professorship. What happens to all the others who, for whatever reason, choose to leave academia? Being aware of one’s skills and being able to describe them with credible examples is more important than ever on the increasingly competitive national and international job markets.

What kinds of skills are needed alongside expert knowledge? In a re-

cent survey by the European Molecular Biology Association (EMBO 2008), senior scientists (group leaders and beyond) were asked what they would have liked to be trained in earlier (i.e. during the PhD and postdoc phases). The top six skills they reported were:

The top six skills (scientists)

- Personnel recruitment and management
- Writing of proposals and grants
- Research project management
- Time management
- Public communication, including media
- Scientific peer communication (presentations and publications)

A recent analysis of requirements for open positions for academics in the public and private sector included the following skills:

The top skills (employers)

- Strong communication and presentation skills
- Project management
- Analytical skills
- Organisational talent
- Additional personal skills such as perseverance, independence, flexibility, goal-orientation

Most, but not all skills in the two lists above, fall into the category of

transferable skills, which – as the term clearly suggests – can be transferred or applied to a wide variety of other situations, and to a greater extent than the expert knowledge that is available at the end of the doctorate. A conscious awareness of which skills can be and are being developed during the doctorate is the first step to building a comprehensive skills profile.

Potential for skill development during the doctorate

In 2001 the Research Councils of (UK) produced a Joint Skills Statement which outlined “the skills doctoral research students would be expected to develop as part of their research training”. They summarized the comprehensive list of skills into seven categories:

Seven categories of skills

1. Research skills and techniques
2. Research environment
3. Research management
4. Personal effectiveness
5. Communication skills
6. Networking and team working
7. Career management

This list is intended as a guideline for supervisors, mentors, units offering workshops and training courses and – in line with a self-directive approach – for PhD students themselves. The complete statement that includes 36

skills (available from www.vitae.ac.uk/policy-practice/1690/Joint-Skills-Statement.html) presents a good basis for PhD students to analyse their present-day level of skills and identify development potential and gaps in their skills profile.

Developing existing skills and learning new ones are ongoing activities that run parallel with and also enhance the research process for the PhD. Many of these skills will be learned “on the job” i.e. by doing research, one automatically acquires, for example, IT skills, analytical skills, and can do database searches and assimilate new literature. Working as a teaching assistant offers the chance of developing a whole range of transferable skills such as supporting the learning of others, explaining coherently and giving feedback. Some skills are best developed “near the job” i.e. with the help of a supervisor or mentor e.g. applying for grants, writing and reviewing scientific publications, extending networks, attending conferences. The third opportunity for learning skills is “off the job”: attending specific courses such as “scientific presentations”, “project management for research”, “scientific writing” or “university teaching and learning”, and then refining and further developing these skills by learning opportunities “on the job”. Searching for, asking for and following up on specific

learning opportunities to extend one’s skills profile is the responsibility of each individual PhD student.

Communicating your skills credibly

Faced with a job application or a job interview, it is important to respond to the requirements of the position. For example, the job profile may ask for project management know-how. If asked “Why do you think you have project management skills?”, I wonder how many employers will be satisfied with the answer: “I completed my PhD on time!” The best answer includes project management terminology (such as: phase diagrams, milestones, Gantt charts, tracking and controlling, risk and stakeholder management) to convince the interviewer that you know and have applied project management methodology and tools within the research setting. Attending a project management course early in your PhD will not only equip you with this know-how but also enable you to apply it to the management of your research.

Adding specific examples to statements about your skills adds credibility, especially when trying to convince potential employers about personal skills such as flexibility, team-working ability, creativity, ability to negotiate and self-discipline. In addition, think about collecting additional evidence or actual products of your work that are

linked to a specific skill, e.g. A4 copies of posters you have produced for an open day (skill: communication with the general public), overview of the organisation of a PhD retreat (skills: organisation, communication, teamwork) or documents prepared for and collected in the teaching and learning environment (skills: communication, leadership, ability to give feedback, perhaps conflict management).

I am convinced that a comprehensive skills profile will increase your

“market value” after the PhD. It will enable you to select the relevant skill statements for the job you are applying for. Prior to an interview, think of specific examples to make your skill statements credible, and if possible take evidence with you to show you really have developed certain skills. This is the way to show that you **know** what skills you have and **are able** to communicate them to employers.

Five steps to developing a comprehensive skills profile

1. **Self awareness:** What skills do I have? Where do I have gaps? Orientate yourself to the skills profile you want to attain or one your PhD program has developed (->what should all PhD students in our program be able to do at the end of their doctorate?)
2. **Opportunity awareness:** Inform yourself about learning opportunities (on, near and off the job) and use them to develop your skills profile (not just to collect credit points!)
3. **Make a sound plan for personal development:** start to fill gaps
4. **Keep your list of activities and achievements** up to date (research, presentations, publications, teaching, supervision, courses taken, anything you have organised)
5. **Generate and store evidence of your skills**

How to Prepare and Write Your CV

Kelly Scientific (www.kellyscientific.com)

Preparing your own Curriculum Vitae can seem a daunting task. Quite apart from what to put in and what to leave out, describing your own strengths and abilities isn't easy. What we have tried to do with the following guidelines is to make the whole process a much easier one and ensure that you end up with a professional document which shows you how to pitch your skills and stand out from the crowd, but without going over the top. In the current economic and employment climate, employers are looking to consistently improve on productivity and match a prospective employee's skills and experience with the job needs, both now and in the future.

1. General guidelines

- Always ensure that your CV is well-formatted and easy to read. Use a clean font no smaller than 11 point and limit the length to 2-3 pages.
- Use bullets wherever possible as it will make your CV easier to read.
- Ensure that you have corrected all grammatical and spelling mistakes. Use a spell check and have your CV read by someone else.
- The use of sub-headings (e.g. Education, Professional Experience, etc.) will help potential employers find the information they require with ease.
- Customise your CV to the job or type of job you are seeking.
- Your experience and education should be listed in reverse chronological order (starting from most recent).
- If you are just commencing your working life, having previously been a student, provide more in depth information regarding your academic achievements and include any internship or stage you may have done.

2. What to include

- A clear objective that matches the job to which you are applying.
- A summary of your profile that highlights your key competencies and experience.

- Several keywords. Many of today's c.v. search engines are geared towards key word searches. By including adequate keywords, you will have a better chance of appearing in the search results.
- Action verbs such as managed, designed, improved, developed, etc.

3. What to avoid

- Unclear or vague information. Use facts and measurable results wherever possible.
- Using "I" or "me". Use instead a style like "Developed three new HPLC methods".
- Trying to cover gaps in employment history. These can be explained during the interview process
- Reasons for leaving a prior job
- Salary expectations

4. Structure

Begin with a bold profile about yourself and your abilities – give the reader a snapshot of the person you are and the skills you possess. Keep it short, objective and make sure you can back up the statements at your interview.

PERSONAL INFORMATION

Include your name, date of birth, address, telephone number and e-mail address. Other personal information such as marital status and family situation should be avoided as much as possible to limit the risk of discrimination. A photograph is not a standard. It depends on the job you are applying for e.g. if you apply for a position in sales or in a representative role it is recommended to add a professional photography

OBJECTIVE

Your career objective is often the focal point of your CV. Make sure that it relates directly to your experience and to the job for which you are applying. You may want to have a few versions of your CV on hand, with different objectives that support the different types of positions you are seeking.

WORK EXPERIENCE

Include your title or position, the company name and location, and the dates of employment. Use strong action verbs that describe your responsibilities and achievements.

EDUCATION

Starting with your most recent education, list the names of the institutions you attended and under each one, the degree or diploma that you earned, your specialisation and the year you finished. Include any awards or distinction you earned also in this section. Do not include primary or secondary school details if you have obtained higher level education.

LIST OF PUBLICATIONS

Unless you are applying for an academic position, keep your list down to 4 or 5 with a statement such as: "Full publication list available upon request". Most companies are not going to read a full list, and including a large number of papers makes the CV unnecessarily lengthy.

ADDITIONAL INFORMATION

Ensure that you also include additional training that you may have taken since finishing your formal schooling (eg. certification as a CRA, marketing course, etc.). Be sure to include your language skills and your level of proficiency in each. If you wish, you may also include any hobbies or outside interests.

REFERENCES

In general, you should either leave this section out completely or simply mention that references are available upon request. Employers should only contact your referees with your permission, and normally only after meeting you. You should however be prepared to supply them at the end of the interview if requested.

The Art of Networking

From getting a new job to finding a child-care place, networking is expected to do the job. In order to be a successful networker, however, you need to invest in your networks early enough.

Barbara Eglin

Ask ten different people what networking is and you may get as many as ten different answers. A person's definition of networking probably depends upon their use of this important personal and professional activity. However, whether you network to make new friends, find a new job, develop your current career, explore new career options, obtain referrals or simply to broaden your professional horizons, it is important to focus on networking as an exchange of information, contacts or experiences.

How I would define the terms networker and networking

1. A networker is the description of a person building up and expanding a social network. Since most of the time these relations are seen as lucrative, the term networker might have a negative touch. People speak of nepotism, cronyism or favoritism in this case.

2. Networking is the composition and maintenance of a social network of a group of aligned people. These people know each other, inform each other and support each other independently for next career steps or other advantages. The support is not linked to effective performance – only based on the relationship.

Networking is the art of building alliances. It's not contacting everybody you know, when you are searching for something (e.g. new job, a specific information). It starts long before the search! And you probably don't realize you are networking.

You are networking, when you attend a professional meeting, visit a specific fair, talk to other parents when attending your child's concert, do pro bono work, talk to your neighbors, visit a social club, have a business lunch, start a conversation with someone

waiting at the veterinarian's office, speak to a former co-worker, post messages or articles on the internet.

Networking is not making cold-calls to people you don't know. It is a carefully driven process of meeting and greeting people. It's much better done on a more informal basis. And it is all about staying yourself and therefore about authenticity.

Remember: it is always a two-way street. Both parties must benefit to be most effective. So as you ask your network for help, you need to be prepared to return the favor when asked.

Your network will not prevent you from losing a job. But it will be much easier to find a new one if you can rely on a strong network. Did you know, that about 80% of the jobs never get advertised? And that approx. 40% of new hires that are brought in from outside an organization were due to employee referrals? From a candidate's

viewpoint, you should know that only every third job is found through official recruiting processes. This doesn't mean that other criteria like educational background, track record etc. are not taken into consideration, but networks are crucially important.

In today's world networks go online too. The best known online communities are platforms like facebook (www.facebook.com), LinkedIn (www.linkedin.com) and XING (www.xing.com). But watch it! Do not publish silly party photos or similar on these platforms. Headhunters, human resources people and generally people you get in contact to will Google you. And: you never get a second chance to make a first impression – even online. There are companies on the market to clean and pimp up your internet track record. I therefore started to be very selective which channels I use and prefer so called closed user groups (e.g. www.



bluechipexpert.com). In addition I use XING – mainly to stay in touch with former co-workers. But you will find that I have no photo online and a minimum of information about me published.

Ask yourself what you can do to become a good networker? Keep in mind that it is about being genuine, building trust and relationships, seeing how you can help others. Participate in as many groups as possible that spark your interests and find out, which one you want to really join (consider for example the attitude of the group, or whether people are supportive to one another?). Always ask yourself, what is your goal participating in a meeting – some meetings are more learning platforms than a good place to make contacts. Start doing pro bono work – this is a great way to stay visible and to give back to others. And: always ask open-ended questions in networking conversations. This way you get more information and the conversation doesn't stop with yes or no. Asking who, what, when, where or how opens up the discussion and shows the listeners that you are interested in them. Try to become known as a powerful resource for others. This way people remember you and will turn to you for ideas, suggestions or names of other people. Always be able to tell what you are looking for exactly and how oth-

ers may help you – be ready and prepared, if someone asks you: "how can I help you?".

Keep in mind to

- Give more than you take
- Examine the needs of others
- Care about your contacts based on long-term considerations
- Don't get impatient, if the kick-back doesn't come immediately
- Only ask sustainable contacts for a favor
- Don't disappoint the person providing you information or a valuable contact – keep this person up to date and don't forget to say thank you
- Don't abuse your network for your own purposes
- Don't benefit on costs of others
- Look at your network as something valuable

And – think about this one: I read recently that a successful networker invests one whole day per week doing networking! My first thought was: "One day a week – no way". But having a closer look at it, it is feasible. Taking into account lunch breaks (never eat alone!), chats before and after meetings, other invitations (e.g. drinks after a meeting, celebrations), people you meet and great on corridors or social club memberships one is easily up

to one day per week.

How do I use my network? I use it mainly to do reality checks. Facing a very difficult situation I seek for a second opinion from an outsider – someone not involved, having a neutral view on a topic. Like a sounding board, but of course keeping the confidentiality. The problems at hand might be lead-

ership problems or politically very difficult situations. What's in for my networking body? She or he gets the same service in return – and we learn from the experience of each other. And I use my network for referrals, because in today's world change happens. It's up to you, what you make out of it!

Reading

- Keith Ferrazzi. (2005). Never Eat Alone: And Other Secrets to Success, One Relationship at a Time. Broadway Business
- Hermann Scherer. (2006). Wie man Bill Clinton nach Deutschland holt. Campus Verlag

Barbara Eglin is an economist. She has a master degree of the University of Zurich, and an Executive MBA in Clinical Organizational Psychology of the Fontainebleau Management School in Paris. She held various management positions in consulting, banking and IT. Today, she is Vice President Private Banking Operations at Credit Suisse. barbara.a.eglin@credit-suisse.com

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