Life at the interface

Bridging the gap between academia and industry is a key to the success of efforts to promote translation of basic biomedical research into therapeutic applications. This month, two leaders of research institutes that have close associations with the pharma industry discuss the attractions and challenges in working at the academia–industry interface, and the factors that they consider important for success.

Susan Gasser, Ph.D.
Director, Friedrich Miescher Institute for Biomedical Research, Basel, Switzerland.

As Director of the Friedrich Miescher Institute (FMI) — a research centre supported by the Novartis Research Foundation that is dedicated to uncovering the molecular causes of disease — Susan Gasser is familiar with the challenges of translational research. "Most challenging is working out how to link basic research teams at FMI with the more focused scientists in drug discovery and development at Novartis," says Gasser. "The big problem is not one of knowing how to communicate, but of finding the right interlocutor at the right moment; knowledge is only useful if it is implemented at the correct juncture in the long process that leads from a fundamental biomedical insight to the production of new drugs."

Gasser does not dictate research orientation for the FMI group leaders, but she has shaped the direction of research at the institute by hiring a major fraction of the current staff. "I believe that although we get wiser with age, we rarely get more creative. So, for most of the new researchers we hired, we sought young group leaders at the start of their independent careers," says Gasser. "But it is not sufficient to hire top-rate researchers — the proper cross-feeding takes orchestration, patience, interdisciplinary thinking and also luck. I find it rewarding to create an environment in which innovative researchers are free to use their brains and skills to tackle important problems with a minimum of administrative hurdles."

Her role involves ensuring that the scientific excellence of the Institute as a whole, which has 23 independent research groups covering epigenetics, growth control and neurobiology, is maintained, as well as the supervision of her own laboratory's research on the epigenetic effects of nuclear and chromosomal structure. "The combination of research and management appeals to me, as one has to think beyond one's own fascination with scientific detail," Gasser says. "My efforts necessarily extend beyond the Institute as well; I take an active role in trying to support new developments in life sciences in Basel, in Switzerland and in Europe."

Gasser thinks that effective management is also a matter of setting an example, and so she dedicates time to maintain her own laboratory's performance at a high level. "In my own research, we are tackling new problems related to epigenetic inheritance and genome stability. Research moves forward by developing new models and designing rational ways to test them," says Gasser. Seeking something new has been a theme throughout Gasser's career — following her Ph.D. at the University of Basel with Jeff Schatz in the field of membrane biogenesis, she chose to do a postdoc on a completely different topic: metaphase chromosome structure at the University of Geneva. Success with publications during her Ph.D. and postdoc helped her to obtain a position leading an independent team at the Swiss Institute for Experimental Cancer Research in Epalinges. She then became a Professor at the University of Geneva before moving to FMI a little over 2 years ago.

One factor that Gasser believes is crucial for success is respect for the capacity and importance of each individual you work with. "This immediately makes you modest: one is but a cog in a machine, and every single cog is critical," she says. "This means that if you really want something to happen, you have start doing it yourself — true in drug development, true in research, true in life."

John A. Secrist III, Ph.D.
President and CEO, Southern Research Institute, Birmingham, Alabama, USA.

Based in the south-east United States, the Southern Research Institute — a not-for-profit centre — has been involved in drug discovery for more than 40 years with notable success: 20 compounds from the Institute have entered clinical trials and six have been approved by the FDA for the treatment of cancer so far. Since joining the Institute in 1979, John Secrist has been closely involved with several of these drugs, and has now taken on the position of President and CEO of the Institute with the aim of making the most of its expertise in translational research. "I realized that as CEO I would have the opportunity to help move our organization to the next level in the advancement of science and engineering," says Secrist. "The Southern Research Institute has been very conservative during its 65 years of existence, but we're now at the point where we should more vigorously pursue different opportunities — those that go beyond our traditional support-base of government grants and contracts and commercial fee-for-service contracts."

Secrist's previous roles have given him strong motivation for his current position. "Through our affiliation with the University of Alabama at Birmingham, we have a tremendous opportunity to bring together our skill-base and focus with that of an outstanding research university and medical school," says Secrist. "In the 5 years I spent as Vice President of the Drug Discovery Division at the Southern Research Institute, I put together some very ambitious plans and entered into the process of executing them. As the CEO, being able to work with more of our diverse teams to do the same thing on a broader scale is both exciting and challenging."

Secrist feels that his diverse experience at the Southern Research Institute has helped prepare him to tackle these challenges. "Over the years, I have continued to function as a scientist, but I have also come to understand the challenges involved in keeping a not-for-profit research organization without an endowment running smoothly," he says. "Given the continuing evolution and myriad of changes that take place in the industry, it can still be challenging to have all the business and financial knowledge necessary to move in new directions, especially those we're considering, such as industry partnerships and creating spin-off companies."

To succeed in such initiatives, Secrist considers that having the right team is the key. "The single most valuable experience in my career was to join a scientific team that was already functioning in an outstanding manner," he says. "I was able to learn from that team, participate in and play a role in its success. Now, I believe that by surrounding myself with very experienced and talented people, my limitations can be offset, and I welcome the opportunity to learn something new. Finally, I've always felt that I've been very lucky in my career, but as some people say, the harder you work, the luckier you get."