

CAREER PATH

Frank L. Douglas



After serving for many years as a senior R&D executive in pharma, a more peaceful retired life with the option of the occasional stimulating and lucrative consultancy work surely beckons. So what was it that enticed Frank Douglas, ex-Vice President of Aventis, to instead take on some of the toughest issues affecting the industry with very little funding to do so?

Douglas says that back in 2000, he, among many others, began to be concerned about the seeming failure of investments in genomics, proteomics and automated technologies to deliver improved productivity. Many believe that the drug discovery R&D model has to change, but despite the first-class level of research and innovation within industry, all of this effort has to be spent on making new drugs rather than process change. Douglas says he had this very experience. “If I could do anything differently in my career, I would probably have been bolder in seeking and introducing new paradigms. We were so busy trying to meet market expectations we didn’t have the time to answer some of the troubling questions.”

Five years later and Douglas is ready to tackle those questions. Having just retired from Aventis, he had several opportunities from which to choose, but a discussion with Richard Schmalensee, Dean of the Massachusetts Institute of Technology Sloan School of Management, about the concept of setting up a centre such as the MIT Center for Biomedical Innovation (CBI) helped him make up his mind.

“I asked myself the question, ‘What would I really like to contribute next?’ And it became very clear that I wanted to contribute something to this concept.”

After presenting the idea to the Sloan faculty, it turned out, Douglas recalls, that for some time they had been discussing among themselves how they could collaborate with the engineering faculty to address challenges in healthcare. His presentation caught their imagination.

“There is a tremendous resonance here with the idea of bringing engineering, science and management skills together to address a common problem,” says Douglas. The concept was quickly made a reality in the form of the CBI, and Douglas was appointed Executive Director.

Having trained initially in physical chemistry and then in medicine, Douglas is no stranger to the academic environment, but after 20 years in the pharmaceutical industry he admits it was a culture shock to return.

“We were so busy trying to meet market expectations, that we didn’t have the time to answer some of the troubling questions”

“I think the major difference is that the two environments are driven by different things,” says Douglas. Each professor is his/her own CEO and is driven by their research hypotheses and obtaining funding for graduate students to work on these hypotheses. By contrast, he says, industry takes a more team- and goal-oriented approach with definite and shared milestones. “In academia each researcher tends to see the problem through his or her own paradigm. The need for addressing real-world projects and having project milestones is much more honed in industry than it is in academia.”

Douglas reminds his colleagues that the Human Genome Project only succeeded when industry joined in and caused the academic sector to become project oriented, and predicts that he will spend a lot of time influencing colleagues in that way.

The most important experience from Douglas’ career that will benefit CBI is his

understanding, having been a practitioner in industry, of the complexity of the industry’s problems. He is also familiar with the various stakeholders, such as the FDA, who will be involved in many of CBI’s projects, which include studying clinical trial design, safety, post-approval surveillance and the economics of stratified medicine. Importantly, he also understands the commercial realities in the industry, although this is an area in which he believes it will be less difficult to motivate his new academic colleagues.

“I’ve noticed that researchers, particularly at MIT, are much more interested in the commercial applications of their ideas than they were 20 years ago. This entrepreneurial spirit and interest in converting discoveries into products is part of the energy at MIT. The new educational initiatives at CBI should improve this further.”

He’s referring to the planned CBI Biopharma Academy, at which industry experts will receive a technical overview of the discovery, development, manufacturing and commercialization issues in biopharma.

A second educational programme, introduced this semester, is the Case Studies in Drug Discovery and Drug Development. This is a graduate course in which students learn about drug development case studies, but in a proactive way. What’s unique about this course is that industry experts present an actual case study, and then groups of students are asked how they would address the same problem using present day technologies. “The students are showing remarkable enthusiasm and talent in addressing issues that were associated with the discovery and development of drugs that have been presented by the industry scientists,” says Douglas.

It’s clear from his enthusiasm that Douglas already feels that he is contributing to improving the training of the next generation of pharmaceutical scientists. But having spent the past 20 years in the resource-rich surroundings of the pharma industry, his biggest challenge is how he will fund the many projects they’ve identified.

“It’s going to be difficult to attack this very large vision with very limited resources,” he says. “That’s the biggest personal challenge of my new career and I have to make sure I don’t become too daunted by that.”