

Building bioclusters

The potential of life-science businesses to catalyse regional economic development has led to efforts worldwide to build bioclusters that foster the translation of innovative research to products. This month, we feature two people closely involved in bioclusters at different stages of their development, who highlight what attracts them to cooperative initiatives to enhance the application of biomedical research, and discuss the challenges involved.



Joseph Panetta
President and CEO of
BIOCOM, San Diego,
California, USA.

For those considering setting up a life-science business, California could be high on a list of potential locations, given its tradition of scientific innovation, wealth of skilled researchers and ready access to venture capital. But even with such advantages, there are some issues that are too large for any one company to tackle alone, such as conveying the value of biotechnology to legislators and the public. This is where organizations like BIOCOM, a trade association that represents around 500 life-science companies in San Diego and in Southern California, aim to make a difference.

"I enjoy being able to share in the challenges and successes of companies, and to participate in some way in helping them to succeed," says Joe Panetta, President and CEO of BIOCOM for the past 8 years. "It's rewarding every time I open

the paper or receive a press release saying that they've moved closer to placing a product into the hands of doctors, patients and others who can benefit from biotechnology."

In his role, Panetta works with a staff of 20, a 50-member board of directors, and the BIOCOM membership of more than 37,000 employees, to lead programmes in capital formation, public policy, workforce education and member networking. Communication is a key part of the job: "I am constantly challenged to find ways to energize, enthuse and explain biotechnology to public officials, to make sure media people get the story right and to generate excitement within the investment community worldwide," says Panetta.

In this respect, Panetta's earlier career provided valuable experiences. Before taking the helm at BIOCOM, he spent 10 years as Vice President of Government and Public Affairs at one of San Diego's first NASDAQ-listed biotech companies, Mycogen, helping it grow into a 600-strong worldwide organization. During this time, he had a major role in obtaining regulatory approval of the first genetically engineered microbes and crops. "Persuading government officials to be confident of the safety and effectiveness of a

revolutionary new technology is no different than getting a venture capitalist to invest in your company," Panetta says. Convincing the public can also present difficulties. "Much of the public is not science literate, and what people do seem to know is often exaggerated or just plain wrong," notes Panetta. The opportunity to tackle such issues was one of the factors that attracted him to join BIOCOM as the association's first President and CEO in 1999.

To help reach people with a broad range of expertise and interests, Panetta now serves on the boards of various organizations addressing issues pertinent to biotechnology, such as the San Diego Regional Economic Development Corporation, and also testifies regularly before US Congress committees. "Being in charge of BIOCOM is undoubtedly a responsibility that you don't leave at the office when you go home," says Panetta. "In essence we are a business with employees, a budget, a board of directors and shareholders who expect a lot from us. My most valuable lesson has been to have confidence in the people who work for and around me, to trust their intentions — if not always their advice — and delegate to those who know more than I do."



Richard Schwab, M.D.
Director, Human
Biotechnology CRC,
National Medical Center,
Budapest, Hungary.

With a long tradition of scientific excellence and recent governmental initiatives to boost the biotech industry in place, can Hungary now capitalize on its potential and develop into a major biocluster in Europe? Success could depend in part on attracting researchers who left the country to pursue careers elsewhere to return. One such researcher is Richard Schwab, who is coordinating the first biotech incubator in Hungary — Biolkubator — set to open its doors in 2008.

"Coming back to Hungary was a real challenge," says Schwab, who left Budapest after his medical training as an internal medicine specialist and gastroenterologist to take up a position as a research fellow at the University Hospital of Basel, Switzerland. "But my time in Switzerland changed my vision about the relationship of medicine to science and industry

— I realized that innovation and applying science to create better therapies is more important to me than my day-to-day role in the hospital. However, many exciting inspirations for research and development come from medical practice, so I had to find a flexible structure to accomplish these goals."

The government-led changes occurring in Hungary at the time, including the passing of legislation to stimulate technology transfer from academic institutions and the provision of significant state financing to support early stage biotech companies, provided an opportunity to find such a structure. "My returning colleagues and I belong to a new generation of scientists in Hungary — I filed my first patent application and founded a spin-off company before finishing my second speciality board exam," Schwab recalls. "I am still involved in regular medical practice, but I now spend much more of my time on several projects that I hope will have an impact on medical treatment more widely."

Biolkubator, which is established in close proximity to the R&D Institute of the National Medical Center, will house around ten companies, ranging from start-ups to development-stage firms that are focused on personalized medicine

and stem-cell research, with shared access to GMP-grade production facilities and to the core facilities of the participating research institutes. Schwab is a founder of one of these companies, KPS Biotechnology, a spin-off firm from Semmelweis University that is working in the field of cellular therapies. He is also currently serving as the managing director of a not-for-profit translational research centre with a focus on signal transduction therapy that is 50% funded by private companies in the form of research contracts, with a matching 50% government grant.

The research centre is not legally independent of the National Medical Center, which can often make management very complicated. "However, I have bridging ambitions," says Schwab. "I had to realize that scientific and profit interests are sometimes not easy to unite, but it is not impossible, and once achieved can be more effective than either separately." He considers this to be the most valuable lesson of his career so far. "A business-like attitude does not necessarily destroy scientific excellence. Understanding how the industry operates helps to serve the needs of patients by promoting the rapid translation of research results into products."