

Building Momentum in Scandinavian Cluster

The Medicon Valley Reviews Progress In Self Analysis

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Medicon Valley, the biomedical cluster region of Southern Sweden and Copenhagen, Denmark, recently completed an extensive self-analysis. The good news is that the region continues to be regarded interna-

tionally as one of the top clusters in Europe for the life sciences.

The bad news is that in order to continue on this track, both countries need to improve their technology transfer efforts. It seems that in Scandinavia, as in the rest of the world, innovation on its own fails to produce the needed commercial opportunities that clusters need to survive. Innovation must be bolstered by economic support.

Biotechnology cluster areas are very much alike, despite their position on the globe. They require the

same core ingredients and are affected by the same problems, despite the unique cultures that drive them. That's why one successful region's introspective analysis should be of broad interest. Whether it is Boston or San Diego, a cluster is going to encounter many of the same issues that the Medicon Valley is tackling today.

Stemming Job Loss

The Medicon Valley exists within an overall economic climate not much different than the U.S. Over 95,000 traditional industry jobs have been lost in the last five years to countries that offer lower costs. One out of every four manufacturing companies is planning to move production out of Sweden in the next two years. In Denmark, nearly 50% of manufacturers have similar plans.

These job losses have focused intense scrutiny on biotech cluster regions in these countries. As in the U.S., biotechnology is seen as a savior because it brings in high-technology knowledge workers. To help regional governments maximize the creation of these new jobs, the 230 members of the regional trade organization Medicon Valley Academy (MVA) released the report, "From BioScience to New Jobs in Medicon Valley."

This economic analysis was first presented at the "BioForum" meeting held in October 2004. BioForum is the annual meeting of Scandinavian life sciences, drawing nearly 7,000 attendees to the Copenhagen area in 2004.

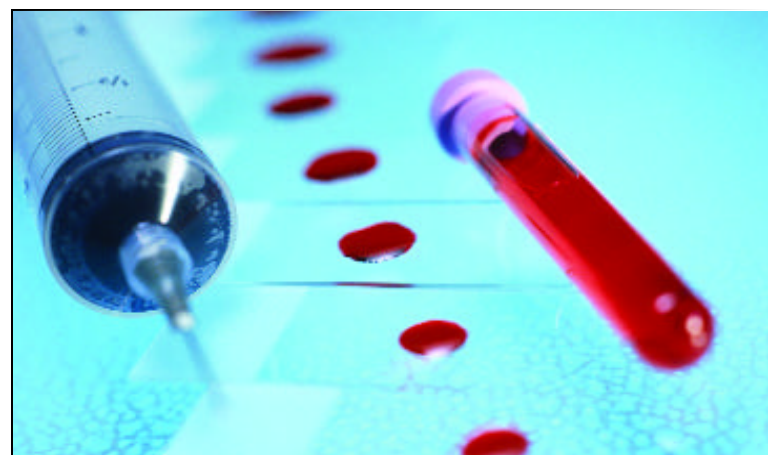
Innovation as a Critical Element

Universities benefit society by translating the results of their research into marketable benefits through an interchange with industry. This report from the MVA states that it is the successful outplacement of technology from universities that forms the cornerstone of a cluster.

The authors looked at a fair number of examples from all over the globe and located three technology transfer successes that could be used in comparisons to the Medicon Valley. These three are Oxford University in the U.K., the Karolinska Institute in Stockholm, and Stanford University in California.

After studying these three centers, the authors recommended a consolidation of technology transfer offices along with a recruitment effort to bring in experienced staff.

The report suggests the establishment of a service center for tech transfer, staffed by business development and licensing executives with skills in commercialization. The MVA believes that such a combined resource center would have a much higher efficiency in building licensing revenues and new businesses, as well as reduce the costs of tech transfer opera-



Biotechnology clusters worldwide are all faced with the same task of complementing a cutting-edge, high-tech scientific infrastructure with a strong base of financial resources and local community support.

tions for the universities it serves.

Cost reductions are achieved through a projected staff of 20 in the service center and 25-30 staff embedded into the various universities in both Denmark and Sweden—a reduction from current staffing levels.

Financial and Tax Incentive Programs

In order to grow their region to the next level, the Medicon Valley authors stated that some type of "pre-financing" monies must be available for inventions. Instead of scientists bringing an idea alone to the tech transfer center, the MVA believes that investigators need to have ready access to funds that take their innovation past the proof-of-concept stage.

This funding helps attract quality venture capital to the idea, and does not dilute ownership by the stakeholders. Much like SBIR loans in the U.S., this money would be available to researchers in the early stages of technology transfer and would be repaid only when the idea attains commercial success.

In addition to pre-financing, innovation needs seed investment to help it grow. In the case of Sweden and Denmark, both countries have seed monies available through government resources, but nothing that follows a business across the border.

The MVA would change this, allowing Swedish seed investments to follow companies into Denmark and Danish funds into Sweden. There is a cross-pollination of people and businesses between these two countries already, much of it because of the new bridge joining the region across the Oresund bay. The MVA suggested that this cross-fertilization occurs with seed monies as well.

Lastly, the MVA report has recommended to both Sweden and Denmark that significant tax incentives be developed for young R&D companies without income. These young firms would see a tax reduction of up to as much as 50% of their total salary costs, allowing them to grow as many as 1,000 new jobs in the Medicon Valley.

When asked about the chances of pushing legislation through two

countries for tax reduction, one Medicon Valley Academy member stated, "A thousand new workers paying taxes in the region is music to the ears of politicians facing job losses from traditional industries. My guess is that they will want these incentives as much as our young companies want them." GEN

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Definiens and BioImage Ink Deal

Definiens (Munich), which provides advanced image analysis solutions, and **BioImage** (Copenhagen), a drug discovery and assay services firm, signed a worldwide, nonexclusive co-development and marketing agreement to deliver tailored applications to the high content screening (HCS) market.

Officials at Definiens and BioImage say their offerings are complementary. BioImage is providing cell-based pathway screening assays with its Redistribution® technology, and Definiens is providing Definiens Cellenger®, their software for automated image analysis, based on Cognition Technology.

The agreement also includes co-development efforts, combining BioImage's high content assay expertise with Definiens' image analysis solution, aiming at the development of specific applications in the area of HCS.

Redistribution technology aims at discovering new generations of small molecule drugs that change the activity of signaling pathways by modulating protein translocation. The Cellenger HCS solution is a software system for the automated high-content analysis of cell-based assays that enable automated data extraction.

Separately, Definiens introduced version 3.0 of Proteomweaver®. The product enables the analysis of 2-D gel electrophoresis images.

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