

BEING THE FUTURE

Intro: Innovation is the word that best describes the Dutch Pivot Park Community. Pivot Park is a young and energetic research centre in the field of Life Sciences, with a focus on new drug development. In an interview with Mirjam Mol, director of Pivot Park Oss, we discuss the trends and developments in the life sciences

Mirjam Mol: "The Pivot Park Community is the result of two major reorganisations within the pharmaceutical company MSD. In 2012, the research department in Oss was shut down, followed by the closure of the development department, two years later. The idea of setting up a Park was formed during the process of MSD's first reorganisation. MSD, in close collaboration with local public stakeholders, set up the necessary funding and infrastructure for the park, including the buildings and facilities."

Four years later, Pivot Park locates 35 companies. It is a blueprint for the most important developments in the pharmaceutical sector, notes Mirjam Mol. "The pharmaceutical business model has been undergoing major changes for many years. The large pharmaceuticals used to work primarily in the earliest phases of medical research, together with scientists and university research centres. After the early phase, they used to take developments further, in-house, all the way through to marketing the final products. However, in recent years, it was noted that this process was no longer innovative: a large 'research-factory' simply is not suitable for this process. So, we have seen the pharmaceutical business model slowly change from research and development to search & development."

SMALL RESEARCH COMPANIES

By divesting their research activities, the major pharmaceuticals creates opportunities for researchers to continue their research, however as part of their own companies. This is the second most important development: small, flexible organisations are often innovative. As soon as they have conceived a promising opportunity, the major pharmaceuticals are ready and waiting to continue the development further. A recent example from Pivot Park; at the end of December, the Anglo-Swedish AstraZeneca announced that they purchased, for the astronomical sum of 7 billion USD, a 55% share in Acerta Pharma. This company, founded in 2013 by two former MSD employees, is developing a cure for leukaemia. "This development was mainly research based, rather than on development. The development phase, for example the large-scale human clinical trials to test the effect of a new medicine, is an area where the pharmaceutical industry does not want to take any risks and want to control this process themselves. Small companies often cannot fund these major studies," notes Mirjam Mol. She sees the point at which major companies take over smaller companies now coming at an earlier phase in their development. "Years ago, they only became interested if the medicine had shown promising effects in phase II trials. Now, a company can also be in the spotlight with a concept, even before it has been tested on humans. This very much depends on the field of research, for example if you have a breakthrough development in the field of oncology, the large companies are more interested at a much earlier stage.

MIRJAM MOL

Mirjam Mol graduated with Honours in Medicine from the University of Utrecht.



With her medical background and experience working for several hospitals, she switched to the pharmaceutical sector, joining Solvay Duphar in 1989. In 1997, she was appointed Clinical Development Director at Organon, after which she headed the Women's Health programme. After the merger with MSD (subsidiary of Merck & CO) in 2009, she formed part of the Dutch Management Team. From Pivot Park's launch in 2012, Mirjam Mol has been closely involved in its development. In October 2014, she was appointed Director of the Pivot Park Community. She has an extensive (inter)-national network in Life Sciences and Health Care.

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FROM COMPANY EMPLOYEE TO PARTICIPATING IN AN OPEN COMMUNITY

Working together in an open community is the 'next big thing', believes Mirjam Mol. Patient-driven research is an emerging field. Patients and patient organisations are now taking the initiative to research possible solutions. A good example is provided by Prosensa, a Dutch pharmaceutical company. By involving the patient organisation, Prosensa was able to optimally develop a new research concept. Pivot Park is actively involved in another example of this new form of participation: Oncodrugs. "A number of the Park's companies, Leiden University and the Netherlands Cancer Institute and the Pivot Park Screening Centre work together on this concept. The Netherlands Cancer Institute has a detailed knowledge of the causes of cancer. They come up with a so-called target compound, often a protein, and this is something which you can work on together. The Pivot Park Screening Centre already has many of these drug-like compounds in research. Our facilities are unique in Europe, and because of this, we are able to quickly analyse whether the compound matches the target. If we find a match, we can quickly take this further. Leiden University and the three Pivot Park Community companies can then process the compound in order to optimise its effectivity. If successful, the result can be matched to one of the many Dutch Cancer Institute's cancer models. ""The mix of expertise, technology and competence provided by each partner adds to the value chain, hopefully leading to a potential new drug as an end-result. This form of cooperation can also speed up the overall research process. Usually it takes about four years of research and development to move from the target compound to an active drug. Currently, you often see that the process is held up for six months due to a search for partners and funding for the next phase. In our community, the existing partnerships reduce or eliminate this delay because all parties are already aligned."

In the Netherlands, the MSD research and development moved from 'facing the future' to 'being the future'. Mirjam Mol notes, "We have to be realistic, as we no longer have 'big pharma' in the Netherlands; but we do have many smart people with great ideas. I see it as my job to facilitate connectivity between passionate and dedicated people, small and large enterprises, knowledge institutions and the government. The overall aim is, of course, to develop new medicines and make them available to patients".

