Interview: Floris de Gelder & Friso Smit – Managing Director & New Business Development Manager, Utrecht Science Park, The Netherlands

15.10.2015

Tags: Holland, Netherlands, pharma, pharmaceuticals, life sciences, biotech, Utrecht Science Park, oncology, organoid technology, regenerative medicine, organoids,

Floris de Gelder & Friso Smit share the story of Utrecht Science Park, the fastest growing science park in the Netherlands. The park's companies do work in the fields of food and health, oncology, organoid technology, regenerative medicine, and personalized health. Mr de Gelder and Mr Smit share their vision for a sustainable future, as well the ground-breaking technologies they develop.

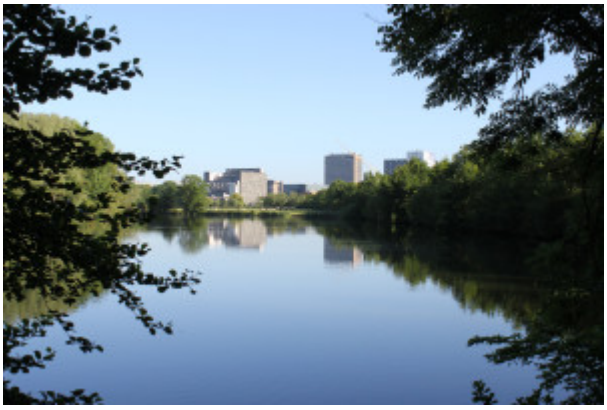
Could you give us an overview of the key changes and developments that have occurred at the Utrecht Science Park since 2012?

In 2012 we officially founded the Utrecht Science Park Foundation, with the task to manage our park in terms of acquisitions, marketing, political and strategic lobbying, community building, eco-system building, and managing our relationship with the region. Our organization has gathered very strong commitments from the leading individuals in the region, including a supervisory board from of important stakeholders in the Utrecht Science Park eco-system, including business leaders and university management.

In essence, we connect the dots between the people, the science – to have companies give access to expertise and research facilities, the economy – to facilitate growth, and the society – to help

translate science into societal solutions. By supporting companies from seed to maturity, in terms of accommodation, finding financing or using public funds to attract private funds, entrepreneurship education, incubator programs, acceleration programs, finding and educating new personnel, and networking, among other support services, we serve as a launch pad for companies into the market

Five years ago, Utrecht Science Park (USP) and its logo did not exist, so people are often surprised that we stand today as the fastest growing science park in the Netherlands, with over 30 life science companies and adding over 5000 jobs in five years, bringing together knowledge and top flight technology in our two key areas of focus – sustainability and life sciences & health. We have developed unique value propositions in such field as public health including one health, food and health, oncology, organoid technology, regenerative medicine, and personalized health.



One of the USPs key institutions, Utrecht Inc, was recently rated the 'second fastest growing knowledge based incubator' in the world for 2014. What would you identify as some of the things that USP as a whole is doing right to foster such an attractive eco-system?

Our success can be attributed to combination of luck, action, and good people. I say luck because of the attractiveness of Utrecht as a region where people who start companies locally prefer to stay. Indeed, USP is the beating heart of Europe's most competitive region, as per the European Commission in 2010 and 2013. Utrecht region's home to a labor force, of which 43% have a university degree, and a very international community with an atmosphere of open exchange. Given this wealth of community knowledge locally, we are working with alumni of Utrecht University intensively to aid start-ups in terms of experience and funding, as well as with the Rabobank to help young entrepreneurs receive necessary loans.

The uniqueness of the science park can also be attributed to our growth in an area that is green and free of early traces of industry, thus allowing us to develop organically and emphasize healthy

urban living and sustainability. In terms of sustainability, we have decided to use already-existing office buildings and facilities, except for when a need arises from a specific new laboratory or research facility.

Our eco-system has the right ingredients, which we have been able to put in place successfully so far. However, we can do better at telling our story as whole by bringing together even more effectively the fantastic ingredients that we already have and continued additions.

What are some of the key developments ongoing at Utrecht Science Park today?

In the public health sphere, the Netherlands Center for One Health opened last year, with such key focuses as emerging infectious diseases, wildlife monitoring, and antimicrobial resistance, with Minister Schippers set to host the Global Health Security Agenda in 2016. Meanwhile, in 2015, Genmab decided to build its R&D facility at the USP, a development that symbolizes how our science park is a location where home-grown start-ups are nourished and rooted into our scientific community throughout their growth path. This year is also marked by the opening of a second Life Sciences Incubator and the expansion of the Hubrecht Institute, an institute of the Royal Netherlands Academy of Arts and Sciences that is leading globally in the development of organoids, as well as the deepening of a fruitful collaboration between Utrecht University and Philips for a MRI machine that combines radiotherapy with scanning, a technology particularly useful for tumors attached to organs.

In 2017, the Prinses Maxima Center for Pediatric Oncology will open and immediately rank as one of the top three such institutions in the world and the largest in Europe, treating 550 patients each year. This addition will also further Utrecht University Medical Center’s goal to be the largest and best oncology center in Northwest Europe. The USP will also be welcoming the headquarters of the Medicines Evaluation Board and the National Institute for Public Health and Environment in 2018. Finally, the tramway linking USP to Schipol Airport in 44 minutes will be completed in 2018, a very

practical step in attracting international companies.

Can you please tell us about one pioneering technology coming out of Utrecht?

At the Hubrecht Institute, Hans Clevers has discovered how to identify native stem cells in almost all organs and developed a technology to make these stem cells survive outside the body. These stem cells are then grown outside the body into organoids, which have similar functionality to the organs from which they are derived. Professor Clevers has also managed to develop organoids from tumors, and these tumor stem cells can be screened with high genetic diversity to evaluate the efficacy of cancer drugs in development and to see with which sub-types of genetic profile they are most effective, thus dramatically increasing the speed of development of personalized cancer drugs. Obviously, the big pharma players are very eager to use this technology. Stem cells-derived organoids can also be grown into new organs that can then be transplanted into patients, constituting a new bio-based therapy with enormous potential. Overall, the organoids developed at the Hubrecht Institute represent a breakthrough technology for both regenerative medicine as well as for personalized cancer treatment. As such, one of the key assets of the Utrecht Region moving forwards will be these bio-based therapies.

What is the involvement of the Serum Institute in Utrecht?

To date, the Serum Institute of India has invested 30 million euros to update their production facilities in the Netherlands, following their acquisition of Bilthoven Biologicals (formerly the Netherlands Vaccine Institute). Bilthoven houses the company’s only polio vaccine facility and one of leading polio vaccine production sites in the world, given its role in the polio eradication campaign sponsored by Bill & Melinda Gates Foundation. Within five years, Bilthoven Biologicals will be in the top ten of production of vaccines globally. Cipla is another Indian company that

recently established a QC lab in Bilthoven, as the port of entry for their generic products to Europe.

All of these developments in Bilthoven, which lies only here kilometers away from Utrecht Science Park are also an interesting project for USP. We are working together in fields like acquisition and development of facilities, thus building a regional eco-system together.

We see a few examples of big pharma here in the Netherlands, with India's Serum institute having acquired Bilthoven Biologics, and Astellas opening a regional HQ facility in Leiden. What does USP need to do to attract a major global R&D facility from big pharma?

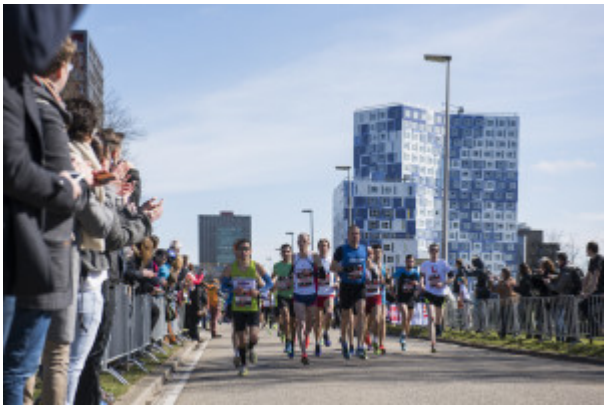
It is also key to note that Danone's Innovation Center opened in 2013, which was a major milestone in our early history. Furthermore, last year with the Board of the University and University Medical Center, we set up a framework for acquisition to foster a more proactive approach based on collaboration. As such, we identify key partners already collaborating with the university and the medical center in terms of R&D and with which there is already a warm relationship in order to extend these relationships. In two of our field of expertise – infectious diseases and oncology – we are building propositions to attract these companies. However, it is difficult to encourage big pharma companies to invest in R&D facilities in Europe.

The Netherlands has a rich eco-system of science parks. How would you like to encourage more cooperation between science parks in the Netherlands?

The One Health cluster, which looks at the interplay between human health, animal health, and environmental health, is an already-strong alliance between the Utrecht University and other Dutch universities and institutions. We also have an alliance with Eindhoven for regenerative medicine and imaging, as well as in the process of forming a new partnership with Maastricht for regenerative medicine.

The question as to how to best finance science park development constantly arises. Together with seven other science parks in the Netherlands, we are exploring the possibility of creating a financial proposition for the pension funds in the Netherlands. Together with Japan, the Netherlands has the largest pension funds in the world at 1500 billion euros, with 90% of these funds being invested abroad. Given the enormous size of these funds, the Netherlands is oftentimes too small to stand as a destination for these funds. We thus need the scale of the Netherlands as a whole, and we have thus been exploring the possibility of combining our eight science parks as a destination for these pension funds. Only one percent of our own pension fund being invested in science parks would be ten times our current budget and encourage our already-strong growth

potential.



How will you define success for the USP over the next five years?

From the development of the world's first MRI accelerator at the University Medical Center Utrecht to the advent of 3D printing and bio-printing of a human skull by Dr. Bon Verweij and the development of organoid technologies at the Hubrecht Institute under Professor Clevers, among many other exciting events, Utrecht Science Park is at the heart of life science developments in the Netherlands.

Our ambition is thus tell the story of how Utrecht Science Park is creating a healthy society for the next generations. We are using the history and knowledge present in this area to connect the dots for future generations. Although it may sound idealistic, we want to tell the story in a way that is relevant for everyone now and in the future to unite the stakeholders in this initiative. As one example, an alliance between science parks to more collaboratively tell the story of the Netherlands for the future generation is also very welcome.

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