Dr Johanna Adami is Health Director and Head of Division at VINNOVA in Stockholm, Sweden. There, she provides insight into their innovative medical advancements and healthcare objectives, and discusses the importance of working collaboratively at local, national and international scales.

Could you outline the Swedish Governmental Agency for Innovation Systems (VINNOVA)’s core healthcare goals?

The main aim for VINNOVA is to strengthen the Swedish innovation system and promote sustainable growth and socioeconomic impact. We have four main areas, and health is one of them. We focus on the future of health and address all healthcare challenges, and within that we have several programmes that promote different parts of the field.

What healthcare challenges are you currently addressing at VINNOVA?

At present, one of our main challenges is demographic change – an ageing society – and even though we don’t specify or earmark a budget to address this issue, it is definitely high on the Swedish agenda. We have just signed an agreement with Japan Science and Technology: we have been collaborating with them extensively, but this is more in terms of basic science. Now we are trying to establish health solutions or social innovations and so forth for the elderly.

Big data

Big data has signalled a global demand for technological innovation, but how is it being harnessed and exploited to the best of its potential in Sweden?

One of Sweden’s strengths is the opportunities in big data, and in particular, its health and economic registries – this is where the country can be competitive in terms of the life science industry and ICT industry. We know the number of clinical trials conducted in Sweden is decreasing, because they can be done much faster and in more efficient ways elsewhere. Now we see that big data, the registries that we have, are a valuable source for future innovations. The Swedish Government has now earmarked an estimated 1.3 billion Swedish Kroner (€130 million) to consolidate some of the registries and make them more usable, so that the industry can have access to those registries and use them simultaneously.
VINNOVA is ranked second in the world for systems innovation in the Pillar Tables. How do you ensure the continuous progression of cutting-edge R&D?

Sweden has a longstanding tradition of substantial R&D investment and we strongly believe this is one of the reasons why we are still a strong welfare country. When it comes to VINNOVA, we have the expertise – previously implemented in many other fields – to promote innovation and growth. Now we are incorporating these models, and are asking ourselves how we can promote health innovation this way. But realistically, what forms the basis of our innovation is collaboration, with industry; SMEs and big enterprises; academia; and in the case of health; the public sector and small private companies with different types of healthcare solutions.

Which of VINNOVA’s innovative medical technologies are you particularly excited by?

We have designed Giraffe, a robot on wheels controlled remotely by a computer mouse. It is similar to Skype, but directed at the elderly so they can communicate with relatives and healthcare services or vice versa. This technology enables the elderly to live independently and avoid hospital visits when a remote consultation will do. There are also upcoming social innovations; one example is special safety housing. This initiative involves architects and the construction industry, as well as the healthcare and ICT sectors, and aims to provide sensors that detect if people have fallen and so on. These types of innovation are testament to VINNOVA’s strength and highlight our interdisciplinary nature.

In terms of eHealth, we now have an entirely new service called My Care Pathways, which promotes patient and citizen empowerment:

you can manage and control your own data, locate your information in the system when transferred between doctors, follow the results, get access to the doctor etc. Users can evaluate those services and see how healthcare provisions can be improved.

Do you believe that a distinct gap exists between innovation and basic research?

We have to move away from that divide, as both are equally important. Research goes through a number of phases, and innovation can emerge when you implement research at any stage. Evidently, countries such as Sweden and Israel that have a clear strategy for both R&D and innovation are very successful. In Sweden, we invest greatly in R&D, but it is more important to promote R&D for implementation and recognise the potential for innovation.

To what extent do you encourage international collaboration?

In our evaluations of researchers we assess whether they have a global focus, in a direct or indirect way. The Swedish Government has signed a number of bilateral agreements with countries such as China, Brazil, India, Israel, Canada and South Africa. It’s important to make practice viable within those agreements. That is how we promote our work. We are the national contact point for the EU Seventh Framework Programme, and proud to have that responsibility. In logistical terms, we often send researchers to, for example, India and back to Sweden to promote collaboration in practical terms.

Healthy Living

The types of food an individual consumes heavily impact health, and for many years VINNOVA has been running the Anti-Diabetic Food Centre. This research group published some significant results a couple of years ago, pinpointing the effect of food on blood sugar and cholesterol. In addition, the Swedish Government has reserved funding to promote collaboration between academia and food companies of various kinds, looking both at food production and how it affects health.

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