AN AUDIENCE WITH…

Jingwu Zang

Senior Vice President, Head of R&D China, GlaxoSmithKline, Shanghai, China. Prior to joining GlaxoSmithKline (GSK) in June 2007, Dr Jingwu Zang was the founding director of the Institute of Health Sciences with the Chinese Academy of Sciences and JiaoTong University School of Medicine, which rapidly became one of the top translational research institutions in China. He also co-founded the Institut Pasteur Shanghai with the Chinese Academy of Sciences and Institut Pasteur Paris. Before he moved to Shanghai, Zang was Professor of Neurology and Immunology and a Research Director of the Multiple Sclerosis Center at Baylor College of Medicine in Texas, USA.

What were the reasons for GSK choosing China as a location for R&D specifically in neurodegenerative diseases?

The main reason was to tap into the increasing talent pool in China and in the Asia–Pacific region. Science is growing rapidly here and the talent is not just home-grown, as there is an increasing number of people returning to China who trained in the United States and Europe.

The second reason is the strong presence of neuroscience research at institutions and centres of excellence in Shanghai, Beijing and other areas. These academic institutions regularly publish papers in high-impact journals such as *Neuron*, *Science* and *Cell*, and we saw an opportunity to work with these researchers.

The third reason is that GSK already had a commercial organization and a vaccine business and manufacturing capabilities in this region. It was important for GSK to have an R&D site in the region to support these, particularly for the emerging markets in China and the Asia–Pacific area.

What have you focused on for the centre since it was established in June 2007 and what progress has been made? What have been the major challenges?

Primarily, we focused on attracting talented scientists both from outside China and locally. So far, our recruitment is going well, as we now have about 210 staff in Shanghai and about 50 staff in Singapore. Approximately 45% of the staff have been recruited from the United States and Europe and around 55% have been recruited from top academic institutions in China and the Asia–Pacific region.

The second area we have focused on is the science. We have been working hard to maximize our scientific strengths and build our pipeline. Our core expertise is neurobiology and neuroimmunology, and as such we are responsible for GSK's disease-modifying treatments in the neuroscience area. At this point, we are working on neurodegeneration, Alzheimer's disease, Parkinson's disease and multiple sclerosis. Things are moving fast and so we are focusing on two work streams. First, we have built an early pipeline to deliver products in the short term. Some of these have been developed in Shanghai, whereas others have been developed at other GSK sites. Our first clinical trial will start in August for multiple sclerosis, and in 2009 overall we will make more clinical candidate selections. At the same time, we are building our strengths to identify new targets, develop novel products and extend our long-term pipeline.

There are many challenges, most of which are related to operational issues, such as how to bring shipments of compounds and reagents from the United States and Europe to China. To resolve these, we are working with the local government.

How is GSK engaging with Chinese academics and other local businesses in its pursuit of novel medicines?

We have been working very actively with academic groups since the beginning, not only in the United States and Europe, but also locally. Before I joined GSK I was with the Chinese Academy of Sciences, and my local academic network has enabled us to collaborate with different groups. We have already set up several — maybe six or seven — agreements with Chinese academic institutions, some in Beijing, Shanghai and Hong Kong. With some groups, we are working very closely on specific projects. For example, we are working with some local medicinal chemistry groups to jointly explore the possibility of identifying novel targets for synthetic compounds structurally based on traditional herbal medicines, and potentially co-developing them. With other groups, we are looking at the possibilities of in-licensing some of their early discovery work.

How does GSK R&D China feed back to R&D sites elsewhere in the world and vice versa?

R&D China is a global research centre and so, from the beginning, we have had a close working relationship with the four or five other GSK R&D sites that are most relevant to us. We have put in place a regular mechanism to communicate with these different sites, either through face-to-face meetings or teleconferences. At these meetings we discuss our drug targets and share data and ideas about strategies to identify new targets.

In general, we provide our neuroscience expertise to other sites and, for our global clinical development organisation, we are involved in due diligence of their in-licensing opportunities.

Also, from the business development perspective, there are some interesting opportunities in China and the Asia–Pacific region that we have access to, and we pass those opportunities on to our global organisation. We also get a lot of support from the global business development teams to help assess opportunities from biotechnology companies.

Epidemiology is another key area to which we contribute. Because we are a global company, it is very important for us to have epidemiology data that support our clinical trials and the registration of our drugs in different areas of the world. So, we work closely with the global organization on the epidemiology projects. Overall, I see an increasing contribution of R&D China to global R&D productivity at GSK.

Interview by Bethan Hughes