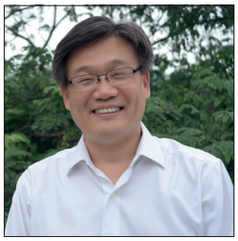

:insideview
profile feature

Li Chen, CEO, *Hua Medicine, Shanghai, China*

After receiving a PhD in chemistry from Iowa State University in the USA in 1992, Dr Li Chen joined Roche's R&D centre in New Jersey, USA. With the skills and experience he gained there, he returned to China in 2004 as Roche's Chief Scientific Officer to help establish its China R&D Center (CRDC). In 2011, with Ge Li and Jack Baldwin, Dr. Chen founded Hua Medicine with $50 million in start-up funding from Arch Venture Partners, Fidelity, Verock, Sino-Alliance International Ltd. and WuXi PharmaTech Corporate Venture. Hua Medicine aims to make the most of the drug development ecosystem in Shanghai to develop novel drugs for China.

Q: Under what circumstances was Hua Medicine founded?

When I met Robert Nelson, managing director of Arch Venture Partners in 2010, he said to me "Li, I think you can do more in the biotech world." His words were timely, as the global financial crisis that caused cash-flow issues and resource constraints in multinational pharmaceutical companies had forced many to shelve some of their compounds. It was an opportune time for me to take advantage of the industrial and economic trends to partner with from multinationals. I could therefore leverage the cost-effective drug development infrastructure in China to address the Chinese patients' needs for novel drugs. The Chinese government supports innovation and makes funding available for start-ups that want to move quickly through bureaucratic layers of red tape. We also believe there is a niche for biotech companies that can generate products that fulfil medical needs in China, which will also fit into the pipeline of major multinational pharmaceutical companies. That's why we founded Hua Medicine.

Q: Why do you choose to start Hua Medicine in Shanghai?

When I first came back to Shanghai, a plan was already in place to build a centre for biomedical research in the Zhangjiang Hi-tech Park, located in the Pudong District of Shanghai. Between 2004 and 2006, this area became a hub for work with institutions like Tongji University and hospitals like Ruijin Hospital. The park has a great ecosystem for drug development with many contract research organizations, a mixture of major pharmaceutical R&D centres and local Chinese pharmaceutical companies, academic institutions and regulatory agencies. The Shanghai municipal government is transparent in its policies, has strong execution capabilities and works in a professional manner.

Q: What is Hua Medicine currently working on?

Hua Medicine's main project now is an oral glucokinase activator (GKA) for Type II Diabetes (T2D). GKA is a small molecular activator of the glucokinase (GK) enzyme, a glucose sensor which is vital in regulating glucose metabolism. The dysfunction of GK causes delays in the secretion of the glucose regulatory hormone insulin and over production of glucagon in pancreas. A reduction in conversion of glucose into glycogen in the livers of T2D patients is also associated with reduced GK expression and function. GKA can increase GK's activity, thus correcting the dysfunction and lowering elevated blood sugar levels in diabetic patients. There is not yet a GKA approved for treating diabetes on the market. At the end of 2011 we in-licensed a GKA compound (HMS5552) from Roche. We started clinical trials in 2013, and had positive results from its Phase 1a and 1b trials demonstrating robust glucose regulatory hormone modulation in healthy Chinese volunteers and Chinese patients with T2D. We will start Phase Ic of the combination therapy trials in the US soon. We hope to start Phase II clinical trials in the first quarter of 2015 in China.

Q: Why did Hua Medicine choose this particular Type II diabetic drug as its first major project?

Due to dietary and genetic factors, Asian patients are at higher risk of diabetes and impaired glucose tolerance than patients in the West. As a result, China has roughly three times the number of diabetic patients compared to the US. At the same time, less than 30 per cent of Type II diabetics in China are able to control their blood glucose level with the standard therapies. With this in mind and our team's track records in drug development, we believe this compound, HMS5552, has the greatest potential of controlling blood glucose levels in Asian diabetes. The results from the phase Ib clinical trials demonstrated that HMS5552 can effectively control glucose levels over a 24-hour period and improve glucose sensitivity in Chinese T2D patients, which can become a game changer in the treatment.

> "I strongly believe the future of medicine is personalized prevention and treatment and that's what Hua Medicine will focus on."

Q: What are the main challenges facing Hua Medicine?

We face two major challenges today. The first one is that we sometimes lose the opportunity to in-license compounds because we are unable to match an offer by a multinational pharmaceutical company. We address this by diligently choosing our projects through collaborations with hospitals and researchers. The second challenge comes with the uncertain and complicated nature of Investigational New Drug (IND) application and approval procedures in China. We manage this by good communication with Center for Drug Evaluation through extensive efforts of our management team and partners.

Q: In which fields will Hua Medicine focus in the future?

I strongly believe the future of medicine is personalized prevention and treatment and that's what Hua Medicine will focus on. We are using biomarkers in the clinical study to differentiate T2D patients and address personalized needs.

As the population is ageing, Hua is also developing novel therapies for Parkinson's disease and depression based on mGLUR5 target and will start clinical studies in 2016.