FOCUS ON INNOVATION

Aten Biotherapeutics to launch imaging agent for cardiovascular MRI & first-in-class orphan drug

Aten Biotherapeutics, an innovation driven R&D company focused on the development of safe & affordable healthcare solutions, is developing platform technologies for diagnostic agents and drug/gene delivery systems in areas such as cardiovascular, lysosomal storage disorders, vaccines and oncology. The company's research efforts are at the interface of chemistry, biotechnology and nanotechnology for solving the pressing healthcare problems of today.

Aten is a spin-off based on the technology developed by Prof. David H. Thompson, Professor of Chemistry at Purdue University, as also President, Aten Biotherapeutics; and his student, Dr. Aditya Kulkarni, who is Chief Technology Officer. The company is unique in that it has no CRO activities, services, or manufacturing activities and is solely focused on technology development and innovation. Aten's state-of-the-art research facility in Bangalore was inaugurated by Dr. S. Sivaram, former Director, National Chemical Laboratory (NCL), Pune and Mr. M. Maheshwar Rao, IAS, Commissioner of Industrial Development & Director of Commerce and Industries, Government of Karnataka, on 29th June, 2014.

Dr. S. Sivaram, former Director, NCL, inaugurating the newly set-up research facility of Aten Biotherapeutics in Bangalore

First products

In the words of Dr. Sivaram, Aten's technology platform appears challenging and innovative. It hopes to take early-stage scientific discoveries in the area of cyclodextrin-based biodegradable polyrotoxanes to develop technology platforms for degradable MRI contrast agents, lipid mobilizing agents and delivery of protein nucleic acid for cell and gene therapy. The first products in Aten's innovation pipeline are *Nanogad,* a novel imaging agent for cardiovascular MRI; and a first-in-class therapeutic for 'Niemann Pick Type C Disorder', an orphan disease that has currently no cure. The technology platforms developed are constructed from materials 'Generally Regarded As Safe' (GRAS) by regulatory bodies, ensuring safety and eliminating/minimizing off-target side-effects and toxicity.

'Rethink on business models needed'

Speaking at the inauguration, Dr. Sivaram stressed the role of R&D- and technology-driven industries in India and their importance in job creation. He also dwelt on the challenges of translating scientific excellence into useful products. "They require passion and persistence of a different order. Many new hills need to be climbed; many new difficulties need to be surmounted."

Dr. Sivaram lamented the lack of a culture that encourages start-ups, especially amongst scientists, in India. "The eco-system is not yet very friendly for creating new companies and few graduate students look up to start-ups as a career option. Few professors or senior scientists encourage their students to begin new companies based on their own research," he noted. He also stressed the need to rethink business models, which will make such solutions, scalable, accessible, inclusive and affordable. "One has to carefully balance resources deployed with impact, risks and opportunity. Many of the proven models for drug discovery need a serious rethink in terms of both resource efficiency and risk potential. An excellent hybrid model would be to focus on high end, high margin markets in the US and to plough back some of the revenues to low margin but large volume markets in India. We need economic and business incentives to focus on lower margin healthcare markets in India, without which, this market will continue to be neglected."