

LeadInvent: Taking technology to drug research

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A team of scientists working since 2002 at the Supercomputing Facility for Bioinformatics and Computational Biology at the Indian Institute of Technology (IIT), New Delhi, one of the finest engineering institutes of India, felt the need to share the research available at the institute with the world.

The idea was to create a platform that enables researchers and scientists across the industry to use algorithms developed at IIT for their research.

By 2005, the team of scientists had developed a large part of the science, and the algorithms had started giving them results. This made Dabur Research Laboratories approach them as they were keen to use the new technology for one of its cancer molecules. The researchers soon realized that they could take a shot at cracking some of these diseases.

This led to the birth of LeadInvent, dedicated to developing new methodologies and products for viable therapeutic lead molecules, and it was officially launched in March 2007. The company provides in-silico research services in chemoinformatics and bioinformatics, and also works on the computational drug design and development of inhibitors for the treatment of tuberculosis.

It won the BioSpectrum Asia Pacific Bioscience Industry Emerging Company of the Year 2011.

The company used the software suite, Sanjeevini created at IIT, for customized computer-aided drug design for the pharma industry. Currently, LeadInvent is working on two projects: one on tuberculosis (TB) and the other on cancer. While the TB project has been successfully implemented with funding, the cancer project has been approved and the funding is about to come through.

The team of scientists led by Dr Pankaj Sharma, CEO of LeadInvent, says, "We had a great and noble idea but there were many challenges before us. The first and foremost was raising capital by convincing the government agencies to fund projects with no track record. Secondly, we faced the barrier of interacting with the scientific community who had done drug discovery with intellectual property (IP) strategists. Hence our challenge was about how to place and structure LeadInvent as an IP-rich and IP-safeguarded company."

Overcoming the challenges, LeadInvent managed to raise little over \$30,000 (Rs 14 lakh) of seed funding from IIT Delhi. The company further received two Small Business Innovation and Research Initiative (SBIRI) grants from the Department of Biotechnology (DBT) for funding its projects on TB and cancer research. Today, the company has in its kitty over \$200,000 (Rs 1 crore) in funding.

Dr Sharma and his team – Dr Praveen Agrawal, chief technology officer, and Mr Surojit Bose, chief operating officer – supported by Prof B Jayaram, a co-founder, are putting intense efforts in the lab to make the software faster and more user-friendly.

On receiving BioSpectrum Asia Emerging Company of the Year Award, Dr Sharma says, "It's a great feeling to be recognized. It brings the feeling that perhaps somewhere people are looking at us and expecting our effort to ease the pain of millions. It's a great moral booster for the team."