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Innovation in contract research

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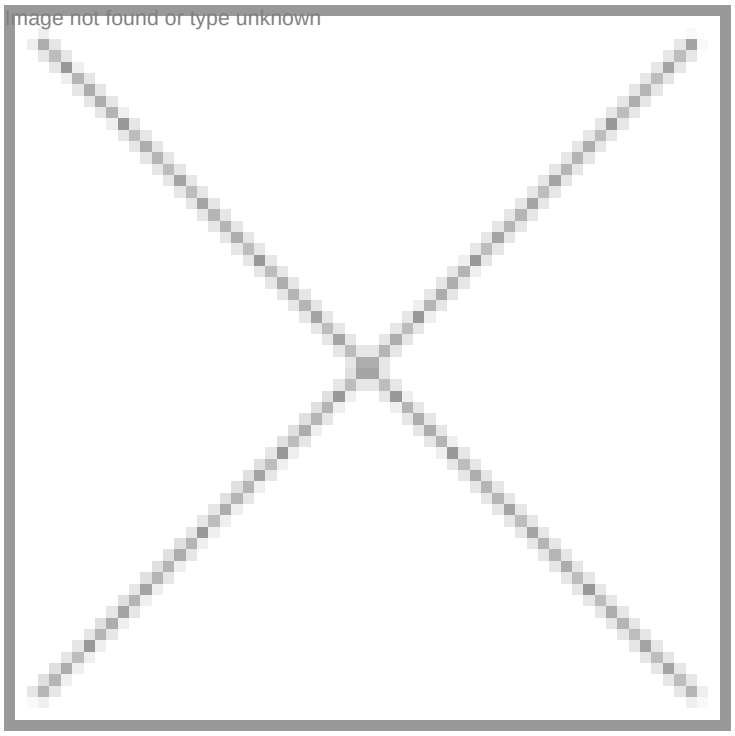
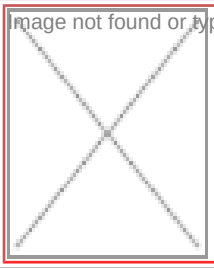
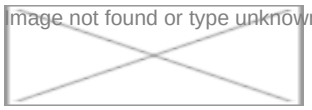




Dr Ganesh Sambasivam
CSO, Anthem Biosciences

Anthem Bioscience is more of a discovery company than a run of the mill contract research organization with strong emphasis on developing innovative platform technologies. Chief Scientific Officer and co-founder Dr Ganesh Sambasivam believes this has allowed Anthem to show an appreciable growth in times of turbulence in the pharma industry.



After completing his bachelor's degree in chemistry, Dr Ganesh Sambasivam wrote the national-level entrance exam for a master's program in organic chemistry from the University of Pune. He says it was a whim that made him take the exam and considers himself to be lucky that he emerged among the top 20 students who were awarded scholarships for the course. This further encouraged him to pursue his PhD at the same university. His interest in organometallics translated in his PhD thesis, which was completed in four years.

After his PhD, Dr Ganesh was presented with a unique challenge to set up a chemistry-based services company fromscratch in Bangalore. The opportunity was big, and so were the challenges, but Dr Ganesh took them head on and helped establish Syngene.

Dr Ganesh recalls the difficulties he faced during those times and says it prepared him for a second innings. â€œInitially, it was very tough to set up Syngene. We used to spend more than 18 hours in the lab. However, it was a lot easier after about a year when the results started to show. I was there for over 12 years as the vice-president and CSO. The experience made my second innings as an entrepreneur easier,â€? he says. After heading several successful projects at Syngene, Dr Ganesh, along with two other colleagues, decided to start their own company.

It has been almost six years since Anthem Biosciences was set up and close to half a dozen patents in the platform technology space have been filed. Dr Ganesh says they like to call themselves a contract innovation service provider. â€œThere are certain negative connotations associated with CROs in the industry. In order to differentiate ourselves, we want to develop platform technologies that can be used while providing services and can also be out-licensed,â€? he explains.

He gives the example of a technology developed at Anthem. â€œScreening drugs for genotoxicity is very difficult. We developed the high throughput-compatible human cell-based genotox platform, where we have genetically engineered cells to have three biosensors with luminescent reporter genes. The results of this assay can be read with a luminometric readout where multiple genotoxic pathways in a cell can be targeted,â€? he says, adding that the current methods used for genotoxicity screening approved by the USFDA are time-consuming. â€œThis will hopefully offer a good solution as it also reduces the use of laboratory animals. It has recently been selected as one of the top 50 innovations of 2012 by DST-Lockheed Martin (University of Texas). We are writing research papers for it in collaboration with some universities,â€? he adds.

Dr Ganesh says Anthem did not get into new chemical entity (NCE) development. However, when one of their clients shut shop, Anthem acquired the rights to an NCE in the nutritional supplement category that was a resveratrol analogue. Resveratrol is an antioxidant commonly found in wine and is widely believed to have anti-inflammatory and anti-cancer properties. This analogue has high bioavailability as compared to resveratrol. After further development, the product was recently launched by Anthem Cellutions, which is co-owned by one of the founders of Anthem Biosciences.

Other interesting projects at Anthem that Dr Ganesh heads include a novel platform to get high productivity from commercial enzymes. The company has received a Biotechnology Industry Partnership Programme grant from Department of Biotechnology for the project.

Manasi Vaidya in Bangalore