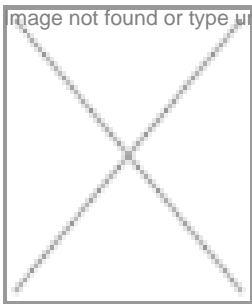
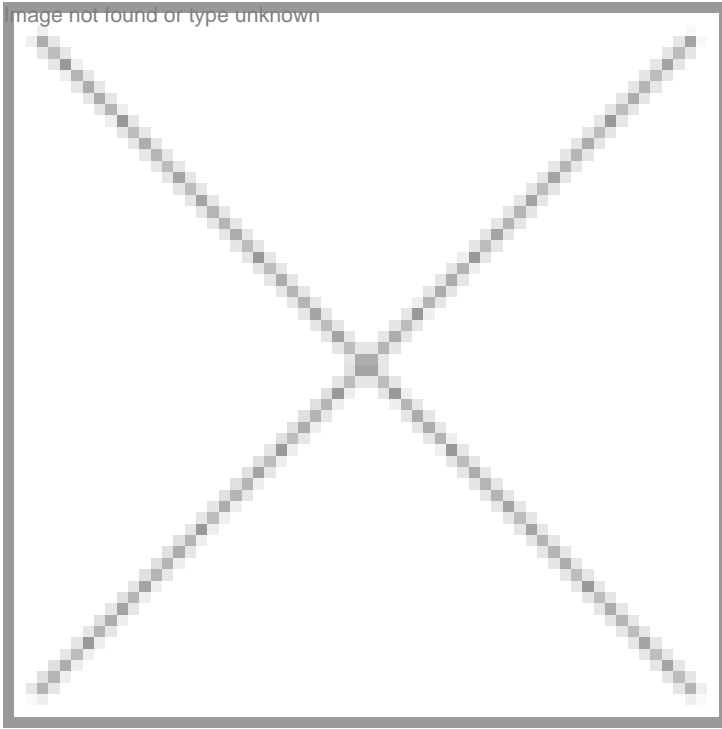


## Mission: Boosting efforts to combat hepatitis C

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Utilizing BIPP support, Hyderabad-based RAS Lifesciences, in partnership with Institute of Liver and Biliary developing a unique cell culture-based replicon model for hepatitis C genotype 3

Known to be a silent killer, hepatitis C virus (HCV) is the leading cause of liver diseases in India. As compared to hepatitis C genotype 1, which is prevalent in rest of the world, genotype 3 affects a major chunk of the population in the Indian subcontinent. Currently, cell culture-based replicon models are only available for genotype 1 and 2, and there are no animal models or other in-vitro models for assessing the efficacy of drugs. Consequently, no vaccine or effective drug has been developed so



To fill this vacuum and find an alternative, Hyderabad-based RAS Lifesciences, along with Institute of Liver and Biliary Sciences (ILBS), New Delhi, initiated a project for the creation of a specific model for 3a-based replicon system. The Biotechnology Industry Partnership Programme (BIPP) of the Department of Biotechnology, Government of India, was a major support for the company. The funding of about 32 lakh, with 50 percent of it as loan and the rest as grant, helped the company move forward on this particular project.

“Funding is very important to keep start-ups like us motivated and to develop innovative and exclusive products to meet India-specific needs. BIPP funding has added a great amount of confidence to propose feasible ideas,” says Mr Bhishma Baru, head-operations, RAS Lifesciences.

Set up in March 2008, RAS Lifesciences is focused on delivering cost-effective solutions for healthcare. The association of RAS Lifesciences with an institute like ILBS, which has an exclusive mandate for treatment and research on liver diseases, proved to be a perfect alliance to carry out translational research. While all the activities relating to amplification and cloning of 10-to-15 full length HCV genotype 3a sequences and generation of RNA by in-vitro transfection in hepatocytes (liver cells) are carried out at RAS Lifesciences, the team at ILBS is conducting transfection and generation of replicon model in cell cultures. The respective teams at both the organizations share the technical know-how and information on a regular basis.

Talking about the relevance of PPPs, Mr Baru adds, "Biotech industry is capital-intensive. Hence, partnerships with public institutions are highly useful in getting products into the India market."

### **The way forward**

Considering the fact that there are no replicon models for hepatitis genotype 3 right now, the outcome is likely to work wonders and provides a ray of hope. The project that was initiated in March 2011 has seen rapid progress and results are encouraging. The product patents will be held by both companies and revenues will be shared equally.

Excited about the outcome, Mr Baru says, "With the expertise at RAS Lifesciences, we could finish cloning of 14 full lengths and sequencing for 10 clones. We are geared to finish the project well before the schedule."

Mr Baru also feels that start-up companies must not be seen at par with the well-established companies. "The private companies are expected to contribute equally to the funding which has loan and grant components. This is a major problem for start-up companies. It would be of great help if, considering the scope and potential of the project, some relaxation is provided to start-ups."

**Rahul Koul** in New Delhi