# Award 2009

## CIO100 (Ingenious 100 -2009) for R-Genomics software

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### Mr. Gopal Rangaraj was also awarded the CIO100 (Ingenious 100 -2009) for R-Genomics software on 4th Sep 2009

#### About R-Genomics

R-Genomics enables GENOME research program at at Reliance Life Sciences. R-Genomics has been rolled out for Jatropha Genome research and this application serves as a knowledge repository for future research on the crop (such as gene discovery, functional genomics and marker development). The application enables storing of information on unique expressed sequence tags (EST), in form of a searchable database. It includes highly complex BLAST (Basic Local Alignment Search Tool) search program that allows dynamic search options of nucleotide and amino acid sequences.

The application, its features and capabilities were highly appreciated by experts in the field of Jatropha Genomics research and the need to create a platform for enabling collaboration of information among other research entities led to the launch of the R-Genomics database. The inherent capability of the database allows researchers to share EST database on collaborative basis. Within few weeks of launch, R-Genomics on the internet received close to 3,000 hits from all over the world. R-Genomics on the internet is available at http://jatrophagenomics.rellife.com/ and is one of the largest collaborative initiatives to share EST information of Jatropha amongst its researches in the world.

R-Genomics addresses the requirement of a secured, efficient end-to-end solution for storing, validating and publishing Genome sequences and the need for a collaborative platform for sharing and analyzing sequences. Solution includes the integration of different environments i.e. Internet, Intranet and Console services.

says Rongaral

cliance Life Sciences (RLS) develops business opportunities in the domains of medical, plant and dustrial biotechnology, But with new search huppening every day it was getting hard for biologists to keep track of genotine cunences like evolutionary history of rganisens, their biological function, and eir chemical structure, etcetera.

So, Gopal Rangaraj, VP-IT, Reliance Life inners, ereated a platform that would allow research entities to collaborate. le decided to do this by launching the Genomics database to facilitate research into Jatropha la crop used for hin-fuell. This would also serve as a knowledge pusitory for future research. "I conceived. Genomics as a comprehensive database sture, search and retrieve information hout minome sequences of the Jatropha dant for the Plant Metabolic Engineering

toap," says Rammaraj. B-Genomics does this by storing nformation on unique expressed equence tags (EST), in the form of a warchable database. The database allows. mearchers to share data. The solution ould also include the integration of lifferent environments - Internet, dratiet and console services.

But the project wasn't devoid of hallenges. "We had to incorporate

#### WHY HE IS GENIOUS

VERTICAL Biotech EMPLOYEES -1200 TTEAM PRESIDENT AND CED: K.V. Subramanian

The certifying authority for both these awards is CIO Magazine in collaboration with IDG (International Data Group).



features in the software to address the fast changing requirements of an emerging research area. The architecture had to be flexible to accommodate changes."

Rangaraj's efforts paid back handsomely. Within few weeks of launch. R-Genomics on the Internet received close to 3,000 hits from all over the world.

"The benefits of an application such as R-Genomics go beyond financial mensures such as ROL primarily because investments on development

and deployment of R-Genomics were not significant in comparison to its utility to the research community," he says. This initiative presents many partnership opportunities for the research group and the company to partner with Indian and international research agencies and organizations to collaborate and share information related to genomics and molecular breeding. It helps also identify genes responsible for specific traits and crop improvement thereby enabling increased production. 660

