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Hot Start-ups: Yaathum Biotech: Disrupting Diagnostics

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Starting up:
Anitha Rajagopal and Arivan. T, both graduates from the UK, started Yaathum Biotech with the aim of indigenously developing affordable diagnostic kits for rapid and near patient testing of emerging infectious diseases like Drug resistant TB, Ebola, Swine flu, Dengue, Leptospirosis, Malaria, HIV and screening /diagnostic/ prognostic testing of chronic diseases like Cancer, Diabetes, Thalassemia based on real-time quantitative PCR (qPCR) and other advanced biomedical technologies like Next Generation Sequencing.

As per a recent market study, the Indian diagnostic market comprising primarily of reagents and kits is to a large extent import driven and there is an increasing need for indigenous products with affordable prices, rather than importing kits from abroad which are expensive. Rapid and multiple disease test kits are needed instead of separate single tests.

"qPCR kits and reagents are in great demand not only in medical but other fields like Agriculture, Veterinary, Food/Sea food industry, Water and Environmental Monitoring etc. As only a few companies or labs are involved in development of kits in the field in India despite a good demand, we hope to achieve the breakthrough in the business in short term. Also, 90% of Indian Diagnostic Services market is dominated by unorganized players and genomic data for the diverse Indian population is largely missing. By offering genomic testing services and creating the data repository can transform Indian healthcare into a more preventive direction," said Anitha Rajagopal - Managing Director, Yaathum Biotech.

Yaathum Biotech is developing a multiplex qPCR based diagnostic test kit that will make possible the identification of full range of Drug Resistant Tuberculosis (DR-TB) at one third the present cost, taking a few hours to test and capable of identifying all Multi Drug Resistant TB (MDR-TB) and Extensively drug resistant TB (XDR-TB) strains in a single test which is not available at present.
"As of now, POC has been validated. Not diagnosing drug resistant TB at the outset and continuing treatment with standard regimens increases the resistant bacterial population in the individual and the increased chance of its spread in the community, placing an additional burden on constrained resources for TB control," said Ms Rajagopal.

She added, "Rapid and early diagnosis of MDR and XDR-TB using our kit will initiate optimal treatment regimens and prevent acquired resistance as well as direct transmission."

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Funding
Yaathum Biotech was started using personal money /investment by company directors of Rs 25 lakh for meeting the initial business expenditure of setting up the lab and other infrastructure.

The company later received BIG Grant support of Rs 36.5 lakhs for development of rapid diagnostic kit for of MDR/XDR TB for a period 18 months. The founders are hoping that the funding will be extended for more number of years.

Achievements
"Being first generation and young entrepreneurs especially in the field of Biotech and sustaining for 4 years in itself is an achievement," said Ms Rajagopal.
Yaathum Biotech was selected by DBT-BIRAC under the highly competitive Biotech Ignition Grant scheme.
Further, Ms Rajagopal was selected by Swedish Government - Swedish Institute for global Young Connectors of Future Program from India under Social Entrepreneurship category.

The Road Ahead
The global market for TB is one billion dollar. India accounting for about 25% of the global TB burden will be the firm's initial market.

"We have an MOU with National Institute for Research in TB, Chennai (WHO affiliated centre) which will help us with final validation and roll out the product through national public health schemes like RNTCP, DOTS, STOP-TB and going for WHO endorsement. There are also sizable private testing labs that can be targeted through initiatives like IPAQT and our business networks."

Yaathum is also simultaneously working on developing a test for diagnosing Anti microbial resistance in hospital acquired infections.

"We also plan to expand our profile into the area of Genomics and preventive/personalized healthcare services i.e., to build a Genomic Big Data repository for the Indian population which can transform the way Pharmaceutical companies discover, develop and test novel drugs in the near future and predicting disease risk," concluded Ms Rajagopal.

Founder Profiles:

Anitha Rajagopal - Managing Director.

Anitha has done her Masters in Biomedicine from United Kingdom specializing in Cancer research based at the Queen Alexandra Hospital, NHS, UK. Later, she worked in a Molecular Biotech company in UK in qPCR based diagnostics for two years and was also involved in public health policy/activities in NHS, UK. Recently selected by Swedish Institute for Young Connectors of the Future leadership program in Sweden under social entrepreneurship category.

Arivan.T - Director

Arivan has completed his BSc. (HONS) Computer Animation in United Kingdom and worked as a Technical Director in a visual effects Company in UK. He is also the founder and managing trustee of a NGO viz BlueBlood since 2007 which works towards education and public health for under privileged children in orphanages and rural areas.

S.T. Anbhan Saadhuguru - Director

S.T. Anbhan Saadhuguru has completed his Masters in Molecular Genetics in United Kingdom. During his masters research he has developed PCR based genotyping assays to identify novel L1 insertions in the Human genome. His research project on Biochip and indirect immunofluorescence microscopy to screen individuals with autoimmune disease was published (co-author) in discovery journal.

Word of Wisdom

Ã¢â?¬Â¢ Dare to make a new path when you can't find one.

Ã¢â?¬Â¢ Innovate for social impact.