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Genotypic Tech, MSRUAS seal deal to research oral cancer at genomics level

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The MoU has been signed for 4 years. MSRUAS will be paying Rs 50 lakh to Genotypic Technology under the terms of the deal.

The prevalence of oral cancer is said to be common in India. "The age-adjusted rates of oral cancer vary from over 20 per 100,000 populations in India, to 10 per 100,000 in the United States, and less than 2 per 100,000 in the Middle East. In comparison with the US population, where oral cavity cancer represents only about 3 percent of malignancies, it accounts for over 30 percent of all cancers in India," opined Dr Roopa Rao, professor & HOD, department of oral pathology, faculty of dental sciences, MSRUAS.

In the current scenario, biomarkers or PCR techniques are extremely important in cancer research which help identify the target organism and vaccine preparation.

"Genomics is not a science. It is a tool with immense power and potential, and is being applied in every area today. This collaboration is mainly going to bring in exposure on genomics knowledge to clinicians and its practical applications for patients, since genomics is usually used more for research purposes than for treatments," said Dr Raja Mugasimangalam, president, founder & CEO, Genotypic Technology.

All the current intellectual properties (IPs) owned by Genotypic and MSRUAS will be owned by the respective parties.

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However, any IPs arising during the R&D collaboration process will be discussed and sorted out later between the two collaborators.

According to Genotypic, through this pact, for the first time in India, it is 'hoping' to bring in Illumina's HiSeq X10, which is said to be the most powerful DNA sequencer in the world.

The HiSeq X10 has the capability to sequence 1 lakh people a year, each machine costing about $10 million.

So far, Korea has 2, Qatar-1 and the US has 5-6 of the X10 machines.

Genotypic has also signed other collaborations with All India Institute of Medical Sciences (AIIMS) New Delhi, Christian Medical College (CMC) Vellore, and Manipal University.

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In June 2015, the company sequenced the genome of Indian herb Tulsi, in collaboration with Central Institute of Medicinal and Aromatic Plants (CIMAP), Lucknow.

Dr Raja added, "This was world's first large genome to be sequenced and assembled in India, purely of Indian work without any external collaborations outside the country. We have also sequenced bitter gourd, a very good anti-diabetic, in association with Indian Institute of Vegetable Research (IIVR)."

In the future, the company intends to sequence disease causing bacteria like TB and Indian malarial parasites.

"We are also planning to sequence useful insects like bees in India, which has already been done in the Middle East," Dr Raja revealed.

Genotypic's business, in the last year, grew by 20 percent with reduction in its profitability mainly due to the Rupee devaluation, and incurring heavy cost investments in infrastructure and machineries.

The company in December 2013 spun-off India's first agri-genomics start-up company, QTLomics, and in the following year, Dhiti Omics, another start-up, a provider of molecular diagnostic services.