

Genotypic, NIPGR launch chickpea microarray

November 29, 2012 | News | By BioSpectrum Bureau



Bangalore: Pioneers in genomics and bioinformatics in India, Genotypic Technology in association with the National Institute of Plant Genome Research (NIPGR), New Delhi, India, has launched chickpea DNA microarrays. The newly developed microarray slide consists of eight arrays with about 60,000 annotated probes. These probes could be used further to develop functional molecular markers and in gene copy number studies.

Although chickpea is a very important food legume crop, the genomic resources for this species are very limited. Recently, the complete transcriptome of chickpea has been sequenced using next generation sequencing (NGS) technologies at the National Institute of Plant Genome Research (NIPGR) under the "Next generation challenge program on chickpea genomics" funded by the Department of Biotechnology (DBT), Government of India. This research work has already been published in peer reviewed journals *DNA Res* and *Plant Physiol* with Dr Mukesh Jain as lead researcher.

The availability of transcriptome sequence in public domain has provided the opportunity to develop a 'high-throughput resource' for studying the expression of all the chickpea transcripts in different biological contexts. Under an memorandum of understanding (MoU), Genotypic Technology in association with NIPGR designed and tested around half a million probes derived from the chickpea transcriptome sequence. The final array design was validated experimentally with different chickpea tissues.

Commenting on this occasion Dr Raja C Mugasimangalam, CEO, Genotypic Technology, said that, "We hope this microarray aids in gene expression studies and genome comparisons and help researchers worldwide in basic and applied research and developing markers for chickpea breeding"

Dr Mukesh Jain also reverberated the same sentiment. He said, "The development of a microarray platform for chickpea represents a milestone, which is expected to accelerate functional and applied genomics research in chickpea worldwide."