

IOB is developing HPRD

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Institute of Bioinformatics (IOB), a not-for-profit organization in Bangalore is in the process of developing a huge Human Protein Reference Database (HPRD) that represents a centralized platform to visually depict and integrate information pertaining to domain architecture, post-translational modifications, interaction networks and disease association for each protein in the human proteome. The IOB already has a database of over 3,000 proteins. In near future IOB wants to triple its size to 10,000, said Dr Akhilesh Pandey, chief scientific advisor, IOB.

Dr Pandey said all the information in HPRD has been manually extracted from the literature by expert biologists at IOB, who read, interpret and analyze the published data. HPRD has been created using an object oriented database in Zope, an open source web application server that provides versatility in query functions and allows data to be displayed dynamically.

Dr Pandey, who is currently working as a professor at the John Hopkins University School of Medicine in Baltimore, USA, observed that as a first step, the IOB is developing a comprehensive database of all known human proteins and their characteristics. Computational and experimental methods are needed to identify the entire set of human genes accurately. To realize this goal, he said, IOB is striving to catalogue the genes and proteins that remain to be discovered by using cutting-edge comparative genomics and mass spectrometry based methods.

He said the IOB was established with a initial capital of \$250,000 by 'The Genomics Research Trust' in May 2002 with a strength of 12. Now it has grown to 35 and may reach 100 next year.