

## Notable bioinformatician - <I>Dr Gajendra Pal Singh Raghava</I>

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Dr Gajendra Pal Singh Raghava's illustrious 26 year old career is full of achievements. His research outcomes have lead to the development of more than 100 web servers, 100 research papers, 50 copyrights, 10 databases and mirror sites. Currently, apart from heading the Bioinformatics Centre at IMTECH, Dr Raghava is also the coordinator of the distributed information centre supported by DBT under the biotechnology information system network (BTISNET) program. His role in the centre was to build and maintain infrastructure required for protein modeling and engineering.

Dr Raghava completed his MTech from Indian Institute of Technology, New Delhi in 1986 and joined IMTECH in the same year as a computer scientist and developer. There he continued to work on various projects and became the head of Bioinformatics Centre in 1994. In 1996, he received a doctorate in bioinformatics from IMTECH and Punjab University, Chandigarh.

Between 1996-98, Dr Raghava worked as a postdoctoral fellow at Oxford University and European Bioinformatics Institute (EBI) at Cambridge. During this period, he learned and developed a number of web servers for application in computational biology, particularly in protein modelling. He developed a method for calculating concentration of antibodies and antigens from ELISA data, and a prediction method for protein secondary structure. In 1999, he established his research group at IMTECH with emphasis on protein structure prediction and genome annotation. In 2001, his group focused on "Computer aided vaccine design" with emphasis on subunit vaccine design.

The government of Korea offered him visiting professorship for six months during March-August 2004, to initiate bioinformatics activities at Pohang University of Science and Technology. He was also invited by the University of Arkansas for Medical Sciences (UAMS), Little Rock, USA to establish bioinformatics centre. Dr Raghava was a key figure in the development of the BioSuite software developed by Tata Consultancy Services under the New Millennium Indian Technology Leadership Initiative. His group in collaboration with New Delhi-based company, Biomantra, developed a software package, VaxiPred, a computer-aided vaccine design suite, which was launched by the then director general of Council for Scientific

and Industrial research (CSIR), Dr RA Mashlekar in 2004.

Dr Raghava has been the recipient of numerous awards including Shanti Swarup Bhatnagar Award in biological science (2008), NASI-Reliance Industries Platinum Jubilee Award and Thomson Reuters Research Excellence - India Research Front Award (2009), JC Bose national fellowship (2010), Lakshmipati Singhania - Indian Institute of Management Young Leader Award (2011).

Drawing lessons from his own experiences during his career, Dr Raghava believes that self learning is the best learning. "Service oriented concept of science is important for the growth of science. Possessing theoretical knowledge alone is not sufficient but, having the qualities of good scientist or human being is more important than the research publications. Moreover, the partnership between the academic institutes and the private companies can increase the probability of more product outcomes," he adds with a smile."