

Professor GPS Raghava of IIIT-D received Sun Pharma Research Awards 2018

Professor GPS Raghava, Head of Computational Biology Department at Indraprastha Institute of Information Technology, Delhi (IIIT-D) received Sun Pharma Research Awards 2018 for his discovery of Novel Drug Delivery Vehicle (cell-penetrating peptides). During this research work, he ingeniously harnessed the power of Bioinformatics where peptides were discovered with the help of computer programming and validated experimentally. The entire research process was completed in less than four years, with the help of various branches of bioinformatics, i.e., Biology, Computer Science, Information Engineering, Mathematics, and Statistics. The discovery of Novel Drug Delivery Vehicle reveals the significance of bioinformatics for an experimental researcher to explore new molecules in a relatively short span of time.

Prof Raghava's group successfully demonstrate that these newly discovered peptides have capability to deliver drugs via skin. This technology has been patented and published in journal Scientific Reports, Nature publishing group. These peptides can be used to treat wide range of skin associated diseases like skin infections and skin cancer. In addition, it has been shown that peptides have potential to manage drug resistant bacteria as peptide have ability to deliver drug inside wide range of bacterial cells including drug resistant bacteria. These peptides-based drug delivery vehicles have number of applications that includes topical drug delivery, treating drug resistant bacteria, nucleic acid-based therapeutics.

Prof. Raghava is attributed to many ground-breaking research works and discoveries in the field of computer-aided medicines. His group is strong supporter of open source or free software in the field of bioinformatics and health informatics. Based on research, more than 250 databases/software have been developed by his group; largest number of software developed by any group in the world. He is conferred with many prestigious awards and honors. Prof. Raghava is the recipient of Shanti Swarup Bhatnagar Award in Biological Science, National Bioscience Award for Career Development, J. C. Bose National Fellowship, Fellow of National Academy of Sciences, Fellow of Indian Academy of Science, and many other awards and titles.

On this remarkable achievement, Professor GPS Raghava said, "IIIT-Delhi is one of the most reputed institutes of India where students, as well as faculty, find an adequate environment of

research and development. Both infrastructure and policies of this institute are favorable for researchers and their mentors. That's why IIIT-D has recently been ranked among the top 200 educational institutes in BRICS nations and top 50 Indian institutes in QS Rankings 2019. Moreover, in QS India University Rankings 2019, IIIT-D was the only state university to appear in the list of top 50 institutions nationwide."