

## Citation of Dr. Phani Kumar Pullela

Dr. Phani Kumar Pullela did his bachelors from Government College, Rajahmundry and Masters from University of Hyderabad, Hyderabad in the year 1999. He did his PhD from University of Mysore and postdoctoral research from Marquette University, Milwaukee, USA under the guidance of Prof. Daniel S Sem. After post-doc, Dr. Pullela returned to India and worked in a Bio-medical industry for seven years and joined at CMR Institute of Technology, Bangalore and working as Professor from last 3 years. **His research group works with motto of 'Science for Society'.**



The nomination for “Biotech Product, Process Development and Commercialization Award for year-2017” is due to his granted US patent which relates to isolation of nucleic acids using a matrix and it is an indigenous technology and received approval from ICMR in May 2016. This technology has cut down molecular infectious disease diagnosis costs significantly. Dr. Pullela’s aqueous protocol using natural nanofibres reduces nucleic acid extraction cost to few rupees per sample and importantly it is a universal extraction protocol. The nanofibrous material entangles with the DNA / RNA and allows usage of single protocol for nucleic acid extraction and across all samples types namely, saliva, urine, blood, serum, plasma and sputum. This matrix based nucleic acid extraction received project support from international granting agencies like FIND, Grand challenges Canada, Gates Foundation and also from domestic agencies like DBT-BIPP. A semi-automatic and automatic product based on this technology is licensed and is already in clinical use. As a developing country, we need this kind of ideas to reduce our healthcare burden and improve the reach of molecular diagnosis for common man.

The areas of research of Dr. Pullela’s group are in applied science. His group has signed over six MOUs with industries and the areas include Biosensors, Water exploratory research, Matrix & super absorbent based assay of analytes in food science and technology, analysis of Volatile Organic Compounds (VOCs) for breath based detection of Tuberculosis. Most of Dr. Pullela’s research is with social consciousness and his students have received over forty national and international awards in last three years. He is currently the Institutional Fellow for “Water exploratory research” by Samuha - Hindustan Unilever Foundation project and will receive over 13 lakhs for his research on development of water & water based technologies for the society. Almost half of his research funding for societal research comes from industry and has a DST Nano mission supported sensor facility sponsored with an industry contribution of one crore worth chemicals and thirty lakh worth equipment.

The Biotech Product, Process Development and Commercialization Award 2017 (of Department of Biotechnology) has been conferred on Dr. Phani Kumar Pullela, Professor, CMR Institute of Technology for his pioneering work on development and commercialization of “matrix based universal nucleic acid extraction system”.