

Fellows Elected 2019
(Effective from January 1, 2020)

1. **Baskaran, Sundarababu** (b 16.06.1961), PhD, Professor, Department of Chemistry, Indian Institute of Technology-Madras, Chennai.

Prof. Baskaran has developed domino strategies for the assemblage of natural products of biological interest.

2. **Bhandari, Nita** (b 12.11.1955), PhD, President and Director, Centre for Health Research and Development, Society for Applied Studies, New Delhi.

She is a clinical scientist working in population based research with high impact on Child Health Nutrition in the developing world.

3. **Chakraborty, Supriya** (b 13.12.1969), PhD, Professor, Molecular Virology Laboratory, School of Life Sciences, Jawaharlal Nehru University, New Delhi.

Professor Chakraborty has made significant contributions in understanding biology of plant-virus interactions. He has deciphered novel functions of viral proteins in replication and the stimulation of viral genome transcription in crop models such as tomato, cowpea and okra.

4. **Chatterjee, Mitali** (b 02.11.1960), MBBS, MD, PhD, Professor, Department of Pharmacology, Institute of Postgraduate Medical Education and Research, Kolkata.

She identified clinico-immunological determinants in post kala azar dermal leishmaniasis, which is a major scourge in India and in the third world countries thus paving the way for improved management of the disease.

5. **Chattopadhyay, Arun** (b 05.12.1964), PhD, Professor, Department of Chemistry, Indian Institute of Technology, Guwahati.

For his fundamental contributions to nanoscale material science and technology by way of devising new methods of synthesis as well as applications in submicron scale color lithography and tunable luminescence of quantum dot complexes

6. **Chawla-Sarkar, Mamta** (b 07.07.1970), PhD, Scientist E, Division of Virology, National Institute of Cholera and Enteric Diseases, Kolkata.

She has made substantial research contribution towards understanding host-pathogen interaction and viral pathogenesis for targeted drug development for influenza A and Rota viruses, diseases of global concern.

7. **Dhawan, Jyotsna** (b 31.03.1959), PhD, Chief Scientist and Professor (AcSIR), CSIR-Centre for Cellular and Molecular Biology, Hyderabad.

Dr Dhawan has made fundamental contributions in the area of stem cell research, to define the mechanisms by which adult muscle stem cells attain and maintain progress of self-renewal via

control of epigenetic, transcriptional and signaling networks with implications for improving skeletal muscle regeneration.

8. **Garg, Pramod Kumar** (b 10.05.1963), MD, DM, Professor, Department of Gastroenterology, All India Institute of Medical Sciences, New Delhi.

His research on the pathophysiology of chronic pancreatitis has led to its identification as a genetically determined disease with new genetic mutations (4 in India). He has developed a non surgical treatment of acute pancreatitis.

9. **Hamied, Yusuf Khwaja** (b 25.07.1936), PhD, DSc, Non-Executive Chairman, CIPLA Ltd., Mumbai Central, Mumbai.

Dr Hamied is an outstanding R&D expert, a courageous industrialist and an outspoken statesman for affordable drugs for the treatment of HIV, Anti-cancer and Anti-Asthmatics etc. He is the only Indian who has succeeded in his mission of National significance by way of offering essential drugs at low prices.

10. **Jasra, Raksh Vir** (b 28.11.1952), PhD, Senior Vice President (R&D), R&D Centre, Reliance Industries Limited, Vadodara Manufacturing Division, Vadodara.

For his significant contributions to the development and commercialization of chemical processes based on innovative catalytic and adsorption phenomena

11. **Khosla, Sanjeev** (b 05.06.1969), PhD, Staff Scientist-VI, Centre for DNA Fingerprinting and Diagnostics (CDFD), Hyderabad.

For his outstanding contribution in dissecting the mutual epigenetic modulations between Mycobacteria and its host cells.

12. **Krishnamurthy, Manchikanti** (b 21.04.1969), PhD, Professor H, Tata Institute of Fundamental Research, Hyderabad.

For his pioneering contributions to the experimental study of intense, ultrashort laser interactions with clusters, in particular the demonstration of the counter-intuitive, near complete neutralization of highly charged ions to produce MeV neutral atom beams, and his lateral stride in the generation of high brightness hard x-ray emission from plasmas produced in biological cells.

13. **Krishnan, Raghavan** (b 15.03.1965), PhD, Scientist G & Executive Director, Centre for Climate Change Research, Indian Institute of Tropical Meteorology, Pune.

Outstanding contributions in earth system modeling of climate including Indian monsoon

14. **Malhotra, Pawan** (b 16.11.1960), PhD, Group Leader, Malaria Biology Group, International Centre for Genetic Engineering and Biotechnology, New Delhi.

For his outstanding contribution in dissecting the key components of the malarial parasite and the development of therapeutic strategies.

15. **Mehta, Neelesh B** (b 09.01.1975), PhD, Professor, SPW 205, ECE Dept., Indian Institute of Science, Bengaluru.

Prof. Mehta has made fundamental contributions to the modelling, design, analysis, and optimization of cellular systems, cooperative relaying, cognitive radio, and green sensor networks. He has characterized the new trade-offs that arise in energy harvesting networks, invented opportunistic selection algorithms and optimal criteria, and developed widely-used tools for analyzing wireless systems. The cutting-edge and practically driven nature of his work has also led to his being actively engaged with several leading wireless communication companies such as Qualcomm, Broadcom Corp., Nokia, and Boeing. Prof. Mehta's contributions have been recognized by way of the Shanti Swarup Bhatnagar Award in Engineering Sciences (2017), Swarnajayanti Fellowship, Fellowships of IEEE (USA), INAE and NASI, and the INAE Young Engineer Award. Prof. Mehta's citation record is impressive, with 4,500 citations and h-index of 35 as per Google Scholar.

16. **Munshi, Ritabrata** (b 14.09.1976), PhD, Professor, Indian Statistical Institute, Kolkata.

Munshi is an outstanding young mathematician who is considered a world leader in the theory of L-functions. Specifically, his work in the sub-convexity problem for higher rank L-function is path breaking.

17. **Nath, Utpal** (b 11.09.1965), PhD, Associate Professor, Department of Microbiology and Cell Biology, Indian Institute of Science, Bengaluru.

Professor Nath has done pioneering work in the field of leaf morphogenesis. His work has given insights on leaf growth patterns and its planar geometry using genetic and genomic tools in model plants.

18. **Padmanabhan, Janardhan** (b 15.02.1960), PhD, Senior Professor (G) and Dean, Physical Research Laboratory, Ahmedabad.

Outstanding contributions in solar wind turbulence on magnetosphere and atmosphere

19. **Ramakrishnan, Uma** (b 23.12.1972), PhD, Associate Professor, Ecology and Evolution, National Centre for Biological Sciences, TIFR, Bengaluru.

Uma Ramakrishnan is an outstanding conservation geneticist who has made consistent contribution to wildlife ecology using both reductionist and mathematical modeling approaches. Her work on the population genetics of iconic animals such as the tiger, and of bird communities in the sky islands of the Western Ghats is renowned.

20. **Saha, Bhaskar** (b 02.01.1964), PhD, Scientist G, National Centre for Cell Science, Pune.

For his outstanding contribution in elucidation of novel immune response and signaling mechanisms in cancer and infectious diseases.

21. **Sandeep, Kunnath** (b 03.04.1974), PhD, Associate Professor, TIFR Centre for Applicable Mathematics, Bengaluru.

Sandeep has made significant contributions in the study of Hardy-Sobolov-Mazyra equations, particularly discovering a hyperbolic symmetry in the solution and developed analytical tools to study semilinear elliptic PDE's in the hyperbolic space.

22. **Sankararaman, Sethuraman** (b 15.10.1957), PhD, Institute Chair Professor, Department of Chemistry, Indian Institute of Technology Madras, Chennai.

Prof. Sankararaman has made significant contributions to modern acetylene chemistry and N-heterocyclic carbene chemistry.

23. **Shenoy, Vijay Balakrishna** (b 07.01.1971), PhD, Professor, Department of Physics, Indian Institute of Science, Bengaluru.

Prof. Shenoy is a very versatile and creative theorist who has made original contributions to a wide variety of topics in physics. His most important recent discoveries are in the area of synthetic non-Abelian gauge fields in cold atom systems where an excitation called the rashbon appears, and the idea that topological phases can appear in amorphous systems.

24. **Singla-Pareek, Sneha Lata** (b 30.04.1969), PhD, Group Leader and National Officer, Plant Stress Biology, International Centre for Genetic Engineering and Biotechnology, New Delhi.

Dr. Singla-Pareek has made pioneering contributions on the role of the glyoxalate pathway in stress tolerance. She has unveiled the cross-talk between different stress responses for plant adaptation. She has developed marker-free transgenic rice for abiotic stress tolerance.

25. **Sivan, Kailasavadivoo** (b 14.04.1957), PhD, Secretary, Department of Space and, Chairman, ISRO, Bengaluru.

Professor Sivan has immensely by contributed in the design and development of the Launch Vehicles of India, including several strategic technologies and their adaptation, initiating research and development in new niche and critical areas, transfer of technology to industry for wider use and public benefit.

26. **Subramanian, Kandaswamy** (b 02.09.1957), PhD, Distinguished Professor (HAG) and Dean, Visitor Academic Programmes, Inter University Centre for Astronomy and Astrophysics, Pune.

For his fundamental contributions towards our theoretical understanding of astrophysical magnetic fields, especially their generation through the turbulent dynamo process and their possible primordial signatures in the Cosmic Microwave Background Radiation.

27. **Trivedi, Prabodh Kumar** (b 15.06.1969), PhD, Senior Principal Scientist, Molecular Biology and Biotechnology Division, CSIR- National Botanical Research Institute, Lucknow.

He has made major achievements in basic science applications to crop improvement. Notable publications are in pathway engineering of secondary metabolites in plants and in environmental biotechnology. Developed GM model plants for insect resistance and animal bone health.

28. **Verma, Mahendra Kumar** (b 27.05.1966), PhD, Professor, Department of Physics, Indian Institute of Technology Kanpur, Kanpur

Prof M. K. Verma has made seminal contributions in the field of MHD turbulence based on results from high performance computer simulations based on the well-known code TARANG which he conceptualized and developed, and his analysis of turbulence based on renormalization group theory.

29. **Wani, Mohan Ramchandra** (b 01.01.1965), PhD, Scientist G, National Centre for Cell Science, University of Pune Campus, Pune.

He has made outstanding and original contributions in the area of bone and cartilage remodeling and regenerative medicine. He demonstrated for the first time that IL-3 prevents pathological bone loss and stimulates new bone formation.S