

INSA MEDAL FOR YOUNG SCIENTISTS- 2017

1. **Dr Swati Agarwal** (b 24.07.1985), PhD, Solomon Snyder Department of Neuroscience, John Hopkins University, Baltimore, USA

For elucidating the effect of Bisphenol A on neuronal progenitor and neuronal cells and the mechanism by which it affects autophagy and mitochondrial dynamics.

2. **Dr Md Mahiuddin Baidya** (b 13.11.1983), PhD, Department of Chemistry, Indian Institute of Technology Madras, Chennai

For his contributions towards development of new protocols and for the synthesis of biologically important molecules.

3. **Dr Priyoneel Basu** (b 05.11.1982), PhD, Department of Zoology, Institute of Science, Banaras Hindu University, Varanasi

For pioneering studies on the role of 5-HTP (a precursor of the neurotransmitter serotonin) in resetting the phase of the circadian activity-rest rhythm in mice.

4. **Dr Sanchari Bhattacharyya** (b 03.01.1983), PhD, Department of Chemistry & Chemical Biology, Harvard University, Cambridge, USA

For designing minimal protein immunogens based on glycoprotein gp120 of HIV-1 as a potential future vaccine against HIV with reduced aggregation properties and higher stability.

5. **Dr Vashist Bist** (b 21.03.1988), PhD, Texas Instruments India Pvt. Ltd., Bengaluru

For his outstanding contribution in the area of DC motor drives for low power applications.

6. **Dr Anup Biswas** (b 20.11.1983), PhD, Department of Mathematics, Indian Institute of Science Education and Research, Pune

For his study of the Dirichlet problem for stable-like operators and related probabilistic representations of solutions of stochastic differential equations with jumps.

7. **Dr Kunal Chakraborty** (b 23.09.1982), PhD, ESSO- Indian National Centre for Ocean Information Services (INCOIS), Hyderabad

For his outstanding contributions on modelling of marine ecosystem variability in the Indian Ocean.

8. **Dr Swetaprovo Chaudhuri** (b 01.09.1983), PhD, Department of Aerospace Engineering, Indian Institute of Science, Bengaluru

For outstanding contributions in turbulent combustion laser diagnostics and high performance CFD computation.

9. **Dr Debraj Choudhury** (b 21.04.1982), PhD, Department of Physics, Indian Institute of Technology Kharagpur, Kharagpur

For his insights into the physics of multi-ferroics and oxide systems, and the discovery of exceptional dielectric properties in a series of compounds.

10. **Dr Srishti Dar** (b 12.02.1987), PhD, Tata Institute of Fundamental Research, Mumbai

For developing an elegant assay system of arrayed supported membrane tubes whose dimensions can be controlled to mimic the topology of tubular intermediates generated during membrane fission and for demonstrating the role of GTP hydrolysis and PH domain in membrane constriction and faster kinetics of dynamin catalyzed fission.

11. **Dr Riddhi Datta** (b 28.12.1987), PhD, Dr APJ Abdul Kalam Government College, Kolkata

For elucidating the molecular mechanisms of glutathione- salicylic acid- and ethylene interactions in plant defense signaling network

12. **Dr Yogeshwaran Dhandapani** (b 13.12.1982), PhD, Statistics and Mathematics Unit, Indian Statistical Institute, Bengaluru

For his significant work on asymptotic behavior of random complexes, topology of dynamic Erdős-Renyi clique complexes and asymptotics for geometric functionals of general point processes.

13. **Dr Dipak Gayen** (b 17.09.1983), PhD, National Institute of Plant Genome Research, New Delhi

For cloning the rice *r9- LOX1* gene and showing increased viability and storage stability of nutritional components of golden rice seeds by its down regulation through RNAi and for studying regulation of iron transport in roots by miRNA.

14. **Dr Sahana Holla** (b 10.03.1986), PhD, Laboratory of Biochemistry and Molecular Biology, National Cancer Institute, National Institute of Health, Bethesda, USA

For providing novel insights into immune evasion and survival strategies of mycobacteria.

15. **Dr Dinesh Jagadeesan** (b 12.12.1982), PhD, Physical and Materials Chemistry Division, CSIR- National Chemical Laboratory, Pune

For his approaches towards development of new catalysts and activation of CO₂.

16. **Dr Smita Kumar** (b 24.03.1985), PhD, Centre of Biomedical Research, SGPGI Campus, Lucknow

For significant contributions in understanding the molecular mechanisms involved in detoxification of heavy metals like As and S in plants.

17. **Dr Bodhisatta Nandy** (b 14.01.1984), PhD, Indian Institute of Science Education and Research, Behrampur

For comprehensive experimental evidence, using the *Drosophila* model system, for the major tenets of the theory of sexual selection and inter-sexual conflict.

18. **Dr Joe Philip Ninan** (b 25.08.1989), PhD, Department of Astronomy and Astrophysics, The Pennsylvania State University, USA

For his studies of outburst phenomena in young stellar objects, and development of necessary instruments.

19. **Dr Ashutosh Pandey** (b 25.12.1983), PhD, Faculty of Biology, Chair of Genome Research & CeBiTec, University of Bielefeld, Germany

For metabolic engineering of flavonoid and carotenoid biosynthesis in higher plants

20. **Dr Rucha Kiran Patil** (b 28.04.1986), PhD, Genetic Research Center, National Institute for Research in Reproductive Health, Mumbai

For identifying novel roles of cell derived micro particles in important clinical conditions like recurrent pregnancy loss and dengue fever complications.

21. **Dr Kartik Prasad** (b 23.09.1982), PhD, Mechanical Behavior Group, Defence Metallurgical Research Laboratory, Hyderabad

For his outstanding contributions in the development of indigenous instrumentation for thermo-mechanical fatigue (TMF) crack growth experiments, its utilization for studying TMF in aerospace grade Ti and Ni alloys, and subsequently for using such knowledge in enhancing the remaining life of aeroengines.

22. **Dr Sanjay Pratihar** (b 01.03.1984), PhD, Department of Chemical Sciences, Tezpur University, Tezpur

For his outstanding contributions to multi-metal complexes, theoretical understanding, selective sensing of Hg²⁺ ions and important applications in agriculture.

23. **Dr Uday Kumar B Reddy** (b 10.09.1982), PhD, Department of Computer Science and Automation, Indian Institute of Science, Bengaluru
- For his stellar work in automatic parallelization in high performance computing.
24. **Dr Aravind Kumar Rengan** (b 09.08.1983), PhD, Department of Biomedical Engineering, Indian Institute of Technology Hyderabad, Hyderabad
- For devising a novel way of nano delivery using liposomes and gold nanoparticles, which is useful for both imaging and therapeutics.
25. **Dr Arnab Sen** (b 22.11.1982), PhD, Department of Theoretical Physics, Indian Association for the Cultivation of Science, Kolkata
- For his outstanding contributions towards developing quantum Monte Carlo methods to probe quantum critical points.
26. **Dr Sunil Shetty** (b 18.09.1987), PhD, Biozentrum, University of Basel, Switzerland
- For providing novel insights about roles of the 3GC pairs in initiator tRNA in translation.
27. **Dr Vikas Kumar Singh** (b 14.11.1982), PhD, Center of Excellence in Genomics, International Crops Research Institute for the Semi-Arid Tropics, Hyderabad
- For developing large scale genetic and genomic resources, including sequencing-based mapping, for fusarium wilt resistance and sterility mosaic disease resistance in pigeonpea and for contribution to development of molecular breeding lines in rice.
28. **Dr Devanjan Sinha** (b 07.10.1984), PhD, Department of Zoology, Institute of Science, Banaras Hindu University, Varanasi
- For delineating the complexity and substrate specificity of mitochondrial transport machines and for establishing their role in maintenance of mitochondrial function in diverse physiological states.
29. **Dr Jitendra Thakur** (b 23.06.1984), PhD, Fred Hutchinson Cancer Research, Washington, USA
- For elucidating mechanisms of centromere and kinetochore formation in *Candida* species.
30. **Dr Vikram Vishal** (b 12.07.1985), PhD, Department of Earth Sciences, Indian Institute of Technology Bombay, Mumbai
- For his outstanding contributions on hydro-dynamics of fluid flow in unconventional reservoirs.