

FELLOWS ELECTED 2026
(Effective from January 1, 2027)

1. Acharya, Somobrata (b 03.02.1973), PhD, Senior Professor, School of Applied & Interdisciplinary Sciences, Indian Association for the Cultivation of Science, Kolkata.

Professor Acharya pioneered shape-controlled nanoparticles, hierarchical nanowire assembly into 2D sheets, engineered quantum dot heterostructures for band-gap tuning, and developed AIE-based supramolecular assemblies for robust electroluminescent devices.

2. Balani, Kantesh (b 11.05.1978), PhD, Professor and Head, Department of Materials Science and Engineering, Indian Institute of Technology-Kanpur, Kanpur.

Dr. Kantesh Balani has made outstanding scientific contributions towards engineering and quantifying cellular response (both 'transient' and 'matured' protein attachment on biosurfaces) and achieving multifunctionality (antibacterial, antioxidant, toughness, and multi-length-scale porosity), visualization of protein de-adhesion (via molecular dynamics) on biomaterial surfaces. Dr. Balani also contributed in designing porous and multifunctional Hydroxyapatite/Bioglass-based scaffolds/coatings, and in developing damage-tolerant ultra-high molecular polyethylene composites for biomedical applications.

3. Banerjee, Anirban (b 02.10.1978), PhD, Professor, Department of Biosciences and Bioengineering, Indian Institute of Technology-Bombay, Mumbai.

Prof Anirban Banerjee is a leading microbiologist and cell biologist at IIT Bombay whose research has transformed understanding of host-pathogen interactions by revealing how the innate immune system senses, ubiquitinates, and destroys intracellular bacteria. His pioneering discoveries on pathogen-associated molecular patterns, ubiquitin-driven microbial clearance, and mechanical force-based bacterial killing have opened new avenues for combating antibiotic-resistant infections and strengthened the conceptual framework of cell-autonomous innate immunity.

4. Basu, Analabha (b 11.05.1974), PhD, Professor, BRIC-National Institute of BioMedical Genomics, Kalyani.

Analabha Basu works in the area of human population genomics and has fundamentally reshaped the understanding of India's genetic history. His landmark research expanded the prevailing two-ancestor model, revealing a far more complex peopling of the subcontinent and providing genomic evidence for a major societal shift to endogamy. He has been developing and applying novel computational methods to interrogate large-scale genomic data. He uses machine learning and AI techniques to decipher the genetic architecture of complex traits and diseases, contributing significantly to genetic epidemiology. In the GenomeINDIA project, he is helping build a crucial genomic resource, which will be foundational for future biomedical research. Professor Basu's work continues to be driven by a vision to build an equitable and collaborative global research landscape, ensuring the promise of precision medicine is accessible to all.

5. Bhalla, Vandana (b 27.06.1971), PhD, Professor, Department of Chemistry, Guru Nanak Dev University, Amritsar.

Dr. Vandana Bhalla advances supramolecular organic chemistry, developing chiral self-assemblies, AIEE-based systems, and metal-free photocatalysts that enable efficient, sustainable organic transformations through light-driven activation and innovative nanocatalytic strategies.

6. Bhattacharyya, Sayan (b 10.01.1975), PhD, Professor, Department of Chemical Sciences, Indian Institute of Science Education and Research- Kolkata, Kolkata.

Prof. Sayan Bhattacharyya advanced solid-state and nanomaterials research, developing perovskites and multimetallic catalysts for optoelectronics and energy conversion, revealing structure–property relations and enabling efficient, sustainable technologies through innovative design and mechanistic insights.

7. Biju, Akkattu Thankappan (b 13.04.1977), PhD, Professor, Department of Organic Chemistry, Indian Institute of Science, Bengaluru.

The nominee advanced NHC-catalyzed enantioselective synthesis of central and axial chirality, demonstrated aldimine umpolung, and exploited strained intermediates like arynes and cyclopropanes to access diverse arenes, carbocycles, and sp³-rich molecules.

8. Chakraborty, Kajal (b 24.12.1973), PhD, Director, ICAR-National Bureau of Fish Genetic Resources, Lucknow.

Dr. Kajal Chakraborty has significant research contributions in the area of fish biotechnology, aquafeed products, male sterility-mediated technology using chemical-hybridizing agents and marine bioprospecting for applications in fisheries and post-harvest technology as therapeutics with research. He has around 7000 citations, 16 granted patents and fifteen commercialized technologies. Various aquafeed technologies for marine fish were developed including commercialized feed CadalminTM. His domain of work extends beyond research to technology transfer and business development.

9. Chakraborty, Supratik (b 01.06.1971), PhD, Professor, Department of Computer Science and Engineering, Indian Institute of Technology-Bombay, Mumbai.

Prof. Supratik Chakraborty is a leading authority in formal methods, with contributions spanning formal verification of both hardware and software systems, model counting and sampling, and automated synthesis. His work has significantly advanced the scalability and practical applicability of formal methods and provided rigorous theoretical guarantees.

10. Chandrasekar, Rajadurai (b 20.05.1973), PhD, Professor, School of Chemistry, University of Hyderabad, Hyderabad.

Professor Chandrasekar advanced organic photonic materials, pioneering crystal-based waveguides, lasers, and circuits, introducing mechanophotonics, and enabling precision crystal shaping via ion-beam lithography toward integrated organic photonic devices.

11. Chattopadhyay, Deepanwita (b 04.08.1957), M.Tech, Chairperson and CEO, IKP Knowledge Park, Hyderabad.

Dr Deepanwita Chattopadhyay, Chairperson, IKP Knowledge Park, has excellence in translational research. She developed the first Life Sciences Research Park in Hyderabad, India. She pioneered a Hardware Product Incubator and Makerspace, IKP EDEN, in Bangalore, and has been working with Indian and global partners to support over 2000 innovation projects, startups and companies in high impact areas like healthcare, medtech, biopharma, agriculture, engineering, renewable energy and environment. She also handled various major telecommunication assignments such as: “Institutional Building for TRAI” for the Telecom Regulatory Authority of India and “Review of Corporate Plan” for Videsh Sanchar Nigam Limited (VSNL). With deep interest in entrepreneurship, incubation and institution development, Deepanwita Chattopadhyay undertook a range of pioneering programs in the past 25 years in the field of research translation, innovation and entrepreneurship in partnership with institutions like ICICI Bank, Govt. of Telangana, BIRAC, DBT, NASSCOM, TCS, Govt. of Karnataka and Copenhagen Business School. Her contributions have been widely recognized, earning prestigious accolades such as Lifetime Achievement Award from the Golden Jubilee Biotech Park for Women Society in 2023 and one of the top 10 Enablers and Champions of the Incubation Ecosystem in India by DST, Government of India in 2022.

12. Chattopadhyay, Krishnananda (b 06.11.1970), PhD, Chief Scientist, Structural Biology and Bioinformatics Division, CSIR-Indian Institute of Chemical Biology, Kolkata.

His research addresses a major challenge in molecular biology: viz understanding how proteins – both intrinsically disorderal and folded forms – organize into biomolecular condensates and how these assemblies evolve into pathological states. His contributions have uncovered the molecular and physical principles governing the processes and helped establish quantitative links between sequence, conformational fluctuations, intermolecular interactions and emergent material properties – achieving remarkable clarity. His group has developed ideas at the interface of physical chemistry and disease biology: such as biology of neuro-degeneration (Parkinson's disease and ALS) and infections (Leishmania). His work on protein aggregation has relevance to pathology of Parkinson's disease.

13. Chauhan, Yogesh Singh (b 22.05.1978), PhD, Professor, Department of Electrical Engineering, Indian Institute of Technology-Kanpur, Kanpur.

Prof. Chauhan has developed the industry standard compact models, for advanced Silicon transistors including FinFET, FDSOI, DDSOI. His contributions in GaAs and GaN High Electron Mobility Transistor modeling has enabled high frequency RF applications. His models are integrated in commercial SPICE simulators used by semiconductor companies, for circuit design.

14. Das Sarma, Jayasri (b 30.08.1965), PhD, Professor, Department of Biological Sciences, Indian Institute of Science Education and Research-Kolkata, Nadia.

Das Sarma is a distinguished scientist in neurovirology and neuroimmunology research, yielding profound, globally recognised translational outcomes. Her work integrates foundational molecular virology with the complex mechanisms of host immune response and neuropathogenesis. Her contributions are primarily categorised into four pillars: foundational discoveries in coronavirus pathobiology with global translational impact; pioneering a seminal animal model for neuroinflammation; elucidating the precise molecular and cellular mechanisms of viral neuropathogenesis; and Translational neuroscience. Her work on viral induced immuno pathogenesis of multiple sclerosis, and Neuro inflammation are considered very significant.

15. Dhinakar Raj, Gopal (b 22.09.1963), PhD, Former Professor and Head, Department of Animal Biotechnology, Madras Veterinary College, Chennai.

Gopal Dhinakar Raj is a distinguished veterinary scientist known for pioneering vaccine innovations in animal health. He developed India's first licensed nanotechnology-based Newcastle disease vaccine (Nano-NDV), approved by DCGI for commercial use with Hester Biosciences, Ahmedabad. He has developed and transferred several vaccines, including canine parvo (VLP and live), PPR (BHK-21 adapted), classical swine fever (killed and live), porcine parvo, and LSD vaccines, significantly strengthening livestock disease control. He established the Translational Research Platform for Veterinary Biologicals (TRPVB) under DBT, holds seven patents, and is a recipient of the National Bioscience Award (2007) and TATA innovation award from DBT.

16. Dutta, Sourabh (b 21.07.1967), PhD, Professor, Department of Pediatrics, Postgraduate Institute of Medical Education and Research, Chandigarh.

Sourabh is a neonatologist from PGIMER, Chandigarh. His research has provided evidence for shorter duration of antibiotics for neonatal sepsis, thus reducing cost and risk of development of antimicrobial resistance. He has also contributed to the knowledge gaps in breastmilk and gut microbiomes, management of retinopathy of prematurity and neonatal meningitis. His national and international collaborations in research provide validity and generalizability to his work. He often combines clinical, microbiological and molecular biology tools, both conventional, such as serial C-Reactive protein and procalcitonin levels and advanced like Next Gen sequencing, for research.

17. Ghosh, Subimal (b 17.11.1979), PhD, Professor, Department of Civil Engineering, Indian Institute of Technology-Bombay, Mumbai.

Prof. Subimal Ghosh has made outstanding contributions to hydrometrology, climate services and climate education with wide ranging impacts on Science, Society and Policy.

18. Giri, Ashok Prabhakar (b 05.06.1967), PhD, Chief Scientist, Biochemical Sciences Division, CSIR-National Chemical Laboratory, Pune.

Dr. Ashok Prabhakar Giri has done extensive research on plant-insect interactions at the molecular level. He has identified several novel genes, proteins and small molecules that are synthesized in plants to combat herbivore infestation. Two formulations developed by him are being explored for developing eco-friendly crop protection strategies. His work on specialized plant metabolites in crops like ocimum, tomato, potato and mango is highly significant for unravelling the fundamentals of plant metabolism and also for their applications. One of his research leads has obtained GI tag for Hapus Mango.

19. Gulati, Sheffali (b 28.07.1971), MBBS, MD, Professor & Faculty In-Charge, All India Institute of Medical Sciences, New Delhi.

Professor Sheffali Gulati has dedicated her professional life to applying science in the service of society, particularly India's most vulnerable children and their families. As a child neurologist and academic leader at the All-India Institute of Medical Sciences, New Delhi, she has sought to bridge the gap between research, clinical innovation, policy, and community impact. Her scientific contributions have focused on autism spectrum disorder, epilepsy, cerebral palsy, and neuromuscular disorder conditions that cause significant disability and social disadvantage. Professor Gulati has harnessed technology-including artificial intelligence, virtual and augmented reality, robotics and brain-computer interfaces-to make neurodevelopmental care accessible in low-resource settings. Beyond clinical and research innovations, she has contributed extensively to national policy as Chairperson and expert member of committees constitute by the Ministries of Health and family, welfare, Ministry of Social Justice, Ministry of Women and Child Development, HRD ministry, ICMR, and the National Medical Commission.

20. Gulyani, Akash (b 29.12.1974), PhD, Associate Professor, Department of Biochemistry, School of Life Sciences, University of Hyderabad, Hyderabad.

Prof Akash Gulyani has made significant contributions to quantitative cell biology through the development and application of advanced biosensors and fluorescence-based imaging tools. His research on mitochondrial heterogeneity, cellular dynamics, and activity-based protein probes has provided fundamental insights into organelle function and signaling, while his studies on natural light-sensing and neural regeneration in flatworms have reshaped understanding of eye-brain interactions and regenerative mechanisms in non-vertebrate systems.

21. Gun, Sanoli (b 25.11.1975), PhD, Professor H, The Institute of Mathematical Sciences, Chennai.

Sanoli Gun is a distinguished mathematician recognized for her expertise in modular forms and number theory. Her early work extended classical results on the zeros of cusp forms, and she later expanded into transcendence theory, collaborating with Ram and Kumar Murty on the linear independence of digamma functions and L-functions.

Over the last decade, her contributions have addressed several major conjectures and problems.

Lacunary Forms: With Oesterlé, she provided a converse to Serres classification, proving that lacunary meromorphic modular forms under specific conditions must be holomorphic with non-negative weight.

Fourier Coefficients: In 2018, she proved that the non-zero values of the Ramanujan τ -function are randomly ordered. Additionally, with Kohnen and Soundararajan, she demonstrated that coefficients of half-integral weight cusp forms can be exceptionally large.

Atkin-Serre Conjecture: Alongside Bilu and Naik, she established lower bounds for the greatest prime factors of $\tau(p^m)$ for almost all primes.

L-functions: With Lunia, she refined a result by Soundararajan, showing that a significant number of eigen forms not just one exhibit large L-values at $s = 1/2$.

Beyond her research published in top-tier journals, Gun is a dedicated mentor and academic leader. She has guided numerous students into successful careers and actively fosters the Indian mathematical community through high-level seminars and international collaborations.

22. Jalali, Rakesh (b 22.09.1965), MBBS, MD, Medical Director, Professor and Head of Radiation Oncology, Apollo Proton Cancer Centre, Chennai.

Rakesh Jalali is a globally recognised radiation oncologist whose work has fundamentally reshaped modern radiotherapy by advancing precision, risk-adapted, and function-preserving treatment strategies. He led one of the few large randomised trials from India demonstrating Level 1 evidence that high-precision radiotherapy significantly reduces treatment-related toxicity while maintaining tumour control, directly influencing global radiotherapy standards and guidelines. His 10-year follow-up outcomes, established the durability and safety of modern radiotherapy techniques and set benchmarks for evaluating advanced technologies. He further pioneered the integration of dosimetric science into clinical decision-making, defining dose-volume thresholds and validating organ-sparing approaches that are now embedded in contemporary radiotherapy planning worldwide.

23. Jha, Gopaljee (b 01.03.1980), PhD, Scientist VI, National Institute of Plant Genome Research, New Delhi.

Dr. Gopaljee Jha has made seminal contributions towards understanding the molecular intricacies of sheath blight disease establishment in rice. He identified a key gene in the crop and edited it to impart disease tolerance. He has also mapped a novel source of sheath blight disease resistance in rice, which has been introgressed in elite rice cultivars. He has identified a novel broad-spectrum antifungal protein from a fungal eating bacterium. A variant of this protein is being tested by companies from India and abroad for mitigating fungal infection in crops like grapes, tomato, rice and potato.

24. Jogaiah, Sudisha (b 29.09.1974), PhD, Associate Professor and Head, Department of Environmental Science, Central University of Kerala, Thiruvananthapuram.

Dr. Jogaiah Sudisha, Associate Professor, Central University of Kerala, is recognized for pioneering contributions including development of ISSR-SCAR markers for downy mildew resistance in pearl millet. His innovations in seed biopriming with plant growth promoting fungi, and eco-friendly carrier systems have advanced sustainable agriculture, crop protection, and soil health management in India.

25. Kanungo, Suman (b 11.07.1967), PhD, Director and Scientist G, ICMR-Regional Medical Research Institute, Dibrugarh.

Kanungo's pivotal work on oral-cholera-vaccines (OCV) in Kolkata led to the licensing of the first affordable killed OCV in India in 2009 and secured WHO prequalification (2011). This played a key role in establishing a global OCV stockpile. His research demonstrated the efficacy of a single and flexible dosage schedule for OCV in endemic settings, influencing an ICMR policy recommendation for operational exploration and pre-cholera season deployment. His work on interchangeable dosing of rotavirus vaccines in India resulted in national-level policy reform, addressing delivery challenges, and effectively targeting migrant populations. His work on typhoid burden assessment, vaccine effectiveness, combining environmental surveillance with existing methods, and pioneering use of sero-epidemiology to estimate cholera burden in India have established new paradigms in disease surveillance in India having global implications.

26. Khare, Apoorva (b 25.01.1980), PhD, Associate Professor, Department of Mathematics, Indian Institute of Science, Bengaluru.

Apoorva Khare has made fundamental contributions to the theory of positivity across analysis, combinatorics, and representation theory, forging deep connections between these areas. He is particularly known for his work on entrywise positivity preservers and matrix analysis, including sharp characterisations in fixed dimension, the construction of positivity-preserving polynomials with negative coefficients, and extensions of classical results of Loewner, Horn, Cauchy, and Frobenius. His research has unified themes in total positivity, moment sequences, and kernels, completing and extending foundational results of Schoenberg, Rudin, and Karlin, and introducing new graph invariants arising from positivity. In representation theory, he has obtained positive formulas for weights of highest weight modules and classifying the face lattice of their convex hull (extending results by Satake, Borel-Tits, Casselman, and Vinberg), while extending log-concavity results to parabolic Verma modules. Beyond this, he has extended probability inequalities to metric semigroups and groups, initiated a Polymath project leading to new structural results on abelian groups. He also resolved an open problem of Bapat on distance matrices of trees, extending work of Graham-Lovasz. Overall, his work is really exceptional in nature, distinguished by conceptual unity and the creation of powerful bridges between fields of mathematics.

27. Maiti, Debabrata (b 10.12.1980), PhD, Professor, Department of Chemistry, Indian Institute of Technology-Bombay, Mumbai.

Inspired by enzymatic selectivity, the nominee pioneered catalyst and template design for proximal and distal C–H functionalization, enabling efficient synthesis of complex molecules with broad impact across pharmaceuticals, materials, and agrochemicals.

28. Misra, Sudip (b 25.09.1977), PhD, Institute Chair Professor and Associate Dean (Infra EEC), Department of Computer Science and Engineering, Indian Institute of Technology-Kharagpur, Kharagpur.

Prof. Misra fundamental and optimized solutions for continuity of connectivity and virtual sensor service provisioning offer service guarantees in highly constrained, congested, and inherently disruptive scenarios for IoT network implementation. His research has led to the development of smart affordable devices for addressing challenges specific to Indian society and industries.

29. Mohan, S Venkata (b 01.07.1970), PhD, Chief Scientist, CSIR-Indian Institute of Chemical Technology, Hyderabad and Director, CSIR-National Environmental Engineering Research Institute (CSIR-NEERI), Nagpur.

Dr. S. Venkata Mohan has made outstanding contributions in field of biotechnology, wastewater treatment, and circular biorefineries. His translational research, which spans lab to industrial scale, has significantly advanced environmental remediation, decarbonization and made major impact on sustainable technologies.

30. Mohammed, Asif (b 03.11.1970), PhD, Group Leader & Scientist, International Centre for Genetic Engineering and Biotechnology, New Delhi.

Dr Asif Mohammed has made seminal contributions to our understanding of how cellular proteases regulate organelle biogenesis, segregation, and maintenance in the human malaria parasite *Plasmodium falciparum*. His pioneering research has not only had a lasting impact on the broader cell biology community but has also paved the way for the development of highly potent antimalarial lead compounds that specifically target proteases essential across multiple stages of the parasite's life cycle.

31. Mukherji, Suparna (b 15.06.1966), PhD, Professor, Environmental Science and Engineering Department (ESED), Indian Institute of Technology-Bombay, Mumbai.

Prof. Suparna Mukherji is recognized for her outstanding contributions to the Environmental Engineering field. Her primary contributions include the design, development, and holistic evaluation of water and wastewater treatment processes, and elucidation of the potential of microbes for treatment and remediation of recalcitrant organic pollutants.

32. Mukul, Malay (b 21.02.1965), PhD, Professor, Department of Earth Sciences, Indian Institute of Technology-Bombay, Mumbai.

Prof. Malay Mukul has made significant contributions in understanding deformation in the Himalaya across different temporal and spatial scales, integrating geological and geophysical data to arrive at new conceptual models.

33. Nampy, Santhosh (b 05.05.1966), PhD, Senior Professor & Secretary, Indian Association for Angiosperm Taxonomy, Department of Botany, University of Calicut, Malappuram.

His scientific contributions to floristics of India in general and of the Western Ghats in particular are outstanding. He integrates classical taxonomic expertise with modern molecular techniques to resolve complex evolutionary relationships among angiosperms, particularly within the biodiversity-rich Western Ghats. He has not only been able to diligently revise several complex families of flowering plants but also described about 40 new species. His work on the pollination biology and the molecular phylogeny has provided foundational data for biodiversity inventories and global conservation strategies.

34. Nanal, Vandana Shreekrishna (b 22.04.1967), PhD, Senior Professor, Department of Nuclear and Atomic Physics, Tata Institute of Fundamental Research, Mumbai.

Professor Nanal has played a pioneering role in India, in the search for Neutrinoless Double Beta Decay, in the tin isotope Sn_{124} , which addresses a fundamental question in particle physics and cosmology connected with whether the neutrino is its own anti-particle, and the measurement of its mass. In this connection she has set up the Tlfr Low background Experimental Setup, one of the best low background facilities at sea-level, and has obtained a new limit for the lifetime of double beta decay in 94Zr . She has exceptional research contributions to the fields of nuclear physics and is internationally recognized for her work on the Giant Dipole Resonance. She integrates a bold scientific vision with technological innovation and a multifaceted leadership in education, outreach, societal engagement and gender equity.

35. Nandi, Ashis Kumar (b 19.12.1967), PhD, Professor, School of Life Sciences, Jawaharlal Nehru University, New Delhi.

Prof Ashis Kumar Nandi is a Professor at the School of Life Sciences, Jawaharlal Nehru University, specializing in plant immunity and molecular plant pathology. His research focuses on elucidating the molecular mechanisms underlying plant defense responses and host-pathogen interactions, with the aim of identifying key regulatory genes and signaling networks involved in disease resistance. His work contributes to advancing strategies for developing resilient, disease-resistant crops and improving agricultural sustainability.

36. Narasimhan, Shobhana (b 16.08.1963), PhD, Professor, Theoretical Sciences Unit, Jawaharlal Nehru Centre for Advanced Scientific Research, Bengaluru.

Professor Narasimhan is one of the most distinguished condensed-matter theorists and computational materials scientists of her generation in India, internationally known for her significant contributions in the Surface Reconstruction problem in Au and Pt making connection to STM images, stability of surface alloys, catalysis problem, and 2D materials. She has made important contributions to science education, and to the advancement of women scientists.

37. Padinjat, Raghu (b 09.09.1968), PhD, Senior Professor, National Centre for Biological Sciences, Tata Institute of Fundamental Research, Bengaluru.

Dr Raghu Padinjat's Lab has elucidated the fundamental mechanisms governing the spatial organization of lipid-based signals at cell membranes and their role in encoding cellular information transfer. His pioneering identification of these pathways in *Drosophila* has established conserved principles applicable across diverse animal models, including human cellular systems.

38. Panigrahi, Bijaya Ketan (b 27.07.1968), PhD, Professor, Department of Electrical Engineering, Indian Institute of Technology-Delhi, New Delhi.

Prof. Panigrahi has designed and developed novel intelligent algorithms based on soft and evolutionary computing for power system planning, operation, control, management, protection, and security. Furthermore, he has also developed intelligent maximum power point tracking controllers for photovoltaic arrays to improve the efficiency of solar PV installations.

39. Patel, Bhisma Kumar (b 06.08.1965), PhD, Professor (HAG), Department of Chemistry, Indian Institute of Technology-Guwahati, Guwahati.

Prof. Patel pioneered sustainable catalytic processes, linking mechanistic insight with green chemistry, enabling efficient C–H functionalization, correcting structural assignments, and advancing photocatalytic and electrochemical methods for selective synthesis of complex molecules.

40. Patel, Pankaj R (b 16.03.1953), M.Pharm, DSc (hc) Chairman, Zydus Lifesciences Limited (Formerly Known as Cadila Healthcare Limited), Ahmedabad.

Pankaj Ramanbhai Patel is the chairman of Zydus Lifesciences, the fifth largest pharmaceutical company in India has translational excellence. In October 2024, Patel was ranked 24th on the *Forbes* list of India's 100 richest tycoons. Mr. Patel is the Executive Chairman of the Gujarat Cancer Society and Chairman of the Gujarat Cancer and Research Institute, a Regional Cancer Centre and one of the largest cancer centres of India, reaching out to the needy and underprivileged cancer patients. He also officiates as the Chairman of the Deaf and Mute School, Ahmedabad. Mr. Pankaj Patel has been conferred with the prestigious Padma Bhushan for the year 2025 by the President of India.

41. Patil, Satish Amrutrao (b 01.07.1974), PhD, Professor, Solid State and Structural Chemistry Unit, Indian Institute of Science, Bengaluru.

Prof. Patil's work extends beyond synthesis, enabling n-type polymers, uncovering spin-density-driven exciton fission, and advancing quantum materials, while developing solar-powered hybrid ultracapacitors for efficient and sustainable energy storage solutions.

42. Penmatsa, Aravind (b 26.07.1982), PhD, Associate Professor, Molecular Biophysics Unit, Indian Institute of Science, Bengaluru.

His outstanding contributions in the field of membrane transport promise to the flagship of biomedical discovery. He has used novel molecular engineering techniques to solve several important transporters, such as GABA transporter and large pore channels Pannexins which play an important role in inflammation, cell migration, viral replication, as well as several diseases associated with hearing loss, skeletal defects etc. Arvinda's findings have laid the structural basis of understanding how various antidepressants, antiepileptics and pain relief inhibitors interact with their specific neurotransmitter transporters at a molecular level.

43. Prasad, Amritanshu (b 05.07.1975), PhD, Professor H, The Institute of Mathematical Sciences, Chennai.

The work of Amritanshu Prasad primarily revolves around Representation theory and algebraic combinatorics, with significant contributions to the study of the representations of symmetric groups, Kronecker coefficients, and finite abelian groups. His work on the representation theoretic zeta functions of arithmetic groups of type A_2 over fields of positive characteristics is particularly noteworthy. In this, they establish two conjectures: one, on the uniformity of representation zeta functions over local complete discrete valuation rings. The second is the Larsen–Lubotzky conjecture on the representation growth of irreducible lattices in groups of type A_2 in positive characteristics assuming the validity of Serre’s conjecture on the congruence subgroup problem.

44. Raju, Suvrat (b 15.12.1981), PhD, Professor, International Centre for Theoretical Sciences, Bengaluru.

Professor Raju has made important and original contributions to elucidating the nature of quantum information in quantum gravity. His work on the BH information paradox took the first steps towards the reconstruction of the BH interior using the AdS/CFT holographic correspondence. His work has elucidated why quantum information in a theory of gravity resides on the boundary of the AdS spacetime, and also has the seeds of the algebraic quantum field theory methods (Tomita-Takesaki theory) that are by now routinely used in understanding the definition of entropy in quantum gravity.

45. Rao, Gullapalli Nageswara (b 1945), MBBS, MD, DSc (hc), Founder and Chair, LV Prasad Eye Institute, Hyderabad.

Dr Gullapalli Nageswara Rao is an Indian ophthalmologist, the chairman of the Academia Ophthalmologica Internationalis (AOI) and the founder of the L.V. Prasad Eye Institute, Hyderabad. Dr Rao is a Fellow of the National Academy of Medical Sciences, India and has several medical research papers to his credit. He has received the degree of Doctor of Science (Honoris Causa) from the University of Melbourne, the Honor Award of the American Academy of Ophthalmology, International Blindness Prevention Award from the American Academy of Ophthalmology and the AEBA Award from the Association of Eye Bank of Asia. Dr Rao has served the International Agency for the Prevention of Blindness as a Board Member, the Secretary General (1998) and the President (2004) on various occasions. He was honored by the Government of India, in 2002, with the fourth highest Indian civilian award of Padma Shri. He was elected in 2017 to the Ophthalmology Hall of Fame instituted by the American Society of Cataract and Refractive Surgery.

46. Rathish Kumar, Bayya Venketesulu (b 01.12.1964), PhD, HAG Professor, Department of Mathematics & Statistics, Indian Institute of Technology-Kanpur, Kanpur.

Prof. Rathish Kumar is an applied mathematician working on both the theoretical and computational aspects of some of the problems arising from applications. Some of his important contributions are in: 1. Developing a multi-scale stabilized variational finite element method with dynamic subscales for complex convection dominated flow analysis adjoined with ADR transport model and analysing the convergence aspects of this scheme. 2. Developing Wavelet based methods for PDE's and inverse problems 3. Developing PDE models for analysing certain aspects of Image processing, developing numerical schemes for these models and studying there convergence aspects.

47. Sachdev, Harshpal Singh (b 13.08.1955), MBBS, MD, Professor, Department of Pediatrics, Sitaram Bhartia Institute of Science and Research, New Delhi.

Sachdev HS is a pediatrician and has contributed substantially in an innovative and sustained manner to improve child health and nutrition in India. His contributions have significantly impacted clinical practice and public health policy, especially in relation to maternal and child nutrition. Notable examples include early life origins of adult cardio-metabolic diseases description, exclusive breast-feeding <6mo, zinc supplementation in acute diarrhea, and contextual nutrition norms delineation. Sachdev's efforts have been directed towards our specific needs and issues, providing innovative and novel solutions and putting Indian science and practice on the global map.

48. Sankararamakrishnan, Ramasubbu (b 22.03.1964), PhD, Professor, Department of Biological Sciences and Bioengineering, Indian Institute of Technology-Kanpur, Kanpur.

His work focussed on the biophysics of membrane proteins provide unique biophysical insight into their interactions and function within their lipidic environment. His careful bioinformatic analysis provides insights that could not be obtained by experimental techniques. In particular his work on SWEET family of transporters is a timely contribution to the research on food security and healthy nutrition. He demonstrated for the first time that plants have a family of aquaporins, which led him to propose a hypothesis on the evolution of plants and developing a general theory of the links between protein sequence, structure and evolution.

He has also delved deeply into the nature of non-covalent interactions and established a new paradigm for protein stability through 'pi-pi' interactions, possibility of Proline backbone nitrogen atoms participating in hydrogen bonds. This has led to augmenting drug design efforts, since traditional scoring functions were unable to account for these. He has also worked on balance between pro-and anti-apoptotic proteins to generate peptidic inhibitors of anti-apoptotic proteins, which have been experimentally validated and important for oncological research and drug design.

49. Sanyal, Prasanta (b 01.09.1974), PhD, Professor (HAG), Department of Earth Sciences, Indian Institute of Science Education and Research (IISER)-Kolkata, Mohanpur.

Prof. Prashant Sanyal has made significant contributions in developing novel proxies using organic and pedogenic compounds through establishment of stable isotopes which helped to reveal sediment provenance and paleoclimate.

50. Sengupta, Shantanu (b 11.04.1967), PhD, Chief Scientist, CSIR-Institute of Genomics and Integrative Biology, New Delhi.

His work has helped to decipher the genetic and epigenetic underpinnings of cardiovascular conditions to develop better diagnostic and therapeutic strategies, particularly in Indian context.

His recent work on a maternal B12 deficiency rat model, reveals a novel pathway that maternal DNA methylation alterations increase risk of cardiometabolic disorders in the male offspring, while in the female the risk is in low taurine levels.

He has also played a major role in the nation wide sero survey during covid pandemic, highlighting lasting immunity challenges, as well as pan-CSIR 'phenome India' program integrating diverse omics data for India-specific risk prediction models, enabling personalized healthcare and informed policy decisions.

51. Shankar, Viswanathan (b 14.05.1972), PhD, Professor (HAG), Department of Chemical Engineering, Indian Institute of Technology-Kanpur, Kanpur.

Dr. V. Shankar has made seminal contributions to understanding of linear instabilities in viscoelastic shear flows, leading to elastoinertial turbulence at low Reynolds numbers. His work has advanced understanding of flow transition, elastic instabilities, and drag reduction in complex fluids.

52. Sharma, Ram Kumar (b 15.06.1970), PhD, Chief Scientist, Professor & Associate Dean (BS), AcSIR, CSIR-Institute of Himalayan Bioresources Technology, Palampur.

Dr. Ram Kumar Sharma has integrated genomics and breeding to advance high-value crops of north-west Himalayan regions. He generated haplotype-resolved genome of Stevia (a low calorie natural sweetener), and developed a cultivar, which is widely adopted by farmers and entrepreneurs. His research on tea, and medicinal & aromatic plants identified key QTLs, gene markers, and genomic resources, which were utilised in the improvement in a few crops. About twenty five improved cultivars have been registered and commercialised.

53. Sheshshayee, Madavalam Sreeman (b 20.02.1964), PhD, Professor, Department of Crop Physiology, University of Agricultural Sciences, Bengaluru.

Dr. Sheshshayee is a pioneer in plant stress physiology, advancing trait-based crop improvement for drought resilience. He elucidated genetic variability in water-use efficiency and root traits, enabling marker-assisted breeding. His work led to the release of aerobic rice variety 'Daksha', major water savings strategies, and creation of national isotope and drought phenomics platforms.

54. Shukla, Sanjeev (b 01.04.1979), PhD, Professor, Department of Biological Sciences, Indian Institute of Science Research & Education-Bhopal, Bhopal.

Prof Sanjeev Shukla: Prof. Shukla's foundational contributions to cancer epigenetics include the elucidation of how BORIS- and CTCF-driven chromatin dynamics regulate alternative splicing to promote metabolic reprogramming and tumour metastasis. His pioneering work has opened new avenues for therapeutic intervention in oncology.

55. Somanathan, Hema (b 05.11.1969), PhD, Professor, Indian Institute of Science Education and Research-Thiruvananthapuram, Thiruvananthapuram.

She is an ecologist who has made seminal contributions to the field of pollination biology and plant-animal interactions. Broadly, her research focuses on understanding the sensory underpinnings of complex behaviors in pollinators, foraging bees and more recently, social spiders. She creatively combines field work with theory and laboratory manipulations to address fundamental questions in sensory ecology, and has made pioneering contributions towards understanding the evolution of nocturnality in bees. Her work also extends into agricultural landscapes and the roles native bees play in pollination of food crops. In addition to her research accomplishments, Dr. Somanathan is also an exceptional mentor, and has also contributed to the training of a large number of undergraduate and post-graduate students.

56. Souradeep, Tarun (b 09.10.1967), PhD, Director, Raman Research Institute, CV Raman Avenue, Bengaluru.

Prof Souradeep is globally recognized for his contributions to cosmology and gravitation. He developed statistical methods to test 'Statistical Isotropy (SI)' one of the fundamental tenets of cosmology that the 'universe is isotropic', using Cosmic Microwave Background (CMB) observations by WMAP and PLANCK experiments, and did not find any strong evidence for departures from SI, which is a fundamental contribution to cosmology. He extended his tests to B-modes, a work so fundamental that he was invited to join the Planck team to help analyze their data. Tarun is also one of the initiators of the LIGO project in India.

57. Subramaniam, Annapurni (b 04.05.1968), PhD, Director & Senior Professor, Indian Institute of Astrophysics, Bengaluru.

Annapurni Subramaniam is internationally recognized for her pioneering contributions to the physics of single and binary stars, star clusters and star formation and formation pathway of blue stragglers. Her work provided fundamental insights into structure, shape and chemistry of the Magellanic Clouds. She led the in-orbit calibration and produced impactful science with the Ultra-violet Imaging Telescope, on AstroSat, India's first space-observatory. She is the principal Investigator of India's proposed next-generation UV-Optical space telescope, INSIST, and the Thirty Meter Telescope (TMT) project.

58. Trivedi, Ritu (b 24.05.1971), PhD, Senior Principal Scientist and Head, Endocrinology Division, CSIR-Central Drug Research Institute, Lucknow.

Her work has significantly advanced our understanding of bone disorders with respect to aberrant hormonal and anabolic signals. Her work has integrated hormones change, animal behaviour and physiology as a sensitive biomarker to assess pain, mobility, and functional recovery in preclinical models. Importantly, her work has had direct translational applications resulting in therapies for adult-onset osteoporosis and osteoarthritis, which have been already commercialised. She has been awarded several patents and has successfully done technology transfer to industry. Her research, therefore, successfully spans basic and applied areas.

59. Umapathy, Govindhaswamy (b 04.10.1966), PhD, Chief Scientist and In-Charge, Laboratory for the Conservation of Endangered Species (LaCONES), CSIR-Centre for Cellular & Molecular Biology, Hyderabad.

He has revolutionized conservation physiology in India by pioneering non-invasive hormone monitoring validated across 30 species from frogs to tigers, and elephants to red pandas. His landmark research demonstrated how anthropogenic disturbance drives glucocorticoid-mediated physiological collapse in endangered populations, reshaping wildlife management policy and irreversibly establishing wildlife endocrinology as an indispensable pillar of conservation science in India.

60. Yadav, Pragya Dhruv (b 01.07.1978), PhD, Scientist F & Head, Maximum Containment Facility, ICMR-National Institute of Virology, Pune.

Pragya has made sustained national contributions in managing emerging and re-emerging viral infections, strengthening India's biosafety infrastructure, and advancing One Health frameworks. She provides oversight of BSL-3/4 operations, leads establishment of regional NIVs, and develops national guidelines for laboratory certification. As Mission Director of the National One Health Mission, she coordinates multi-sectoral surveillance and research on zoonotic and vector-borne diseases. Dr. Yadav's laboratory has led frontline outbreak responses for Nipah, Kyasanur Forest Disease, CCHF, Mpox, Zika, Ebola, and COVID-19, including development of indigenous diagnostics, monoclonal therapies, and vaccines. Her work on genomic surveillance, viral characterization, and outbreak containment has informed public health policy and operational guidelines. She has discovered several novel viruses, expanded knowledge of bat-borne pathogens, and contributed to vaccine and antiviral development platforms.