



SMC-Foundation Day Lecture-2026

Organized by

Society for Materials Chemistry (SMC), C/o Chemistry Division, BARC, Mumbai



Professor Sandeep Verma FNA, FASc, FNASc, FNAE, FRSC

HAG Professor (Chemistry) & Head, Gangwal School of Medical Sciences and Technology, IIT Kanpur

Formerly Secretary, Science and Engineering Research Board (SERB), Govt

Title: *Translation with Molecules and Microfluidics*

Date/Day : 29th August 2026, Saturday
Time : 11:00 h
Venue : Multipurpose Hall, Training School Hostel, Anushaktinagar, Mumbai

Program

Welcome : ***Prof. A. K. Tyagi***
Introduction of Speaker : ***Prof. A. C. Bhasikuttan***
SMC Foundation Day Lecture : ***Prof. Sandeep Verma***
Vote of thanks : ***Prof. Sandeep Nigam***

All are cordially invited

Please join for tea at 10:30 h before the lecture

Prof. A. K. Tyagi
President, SMC

(Abstract and speaker's profile overleaf)

Abstract

Translation with Molecules and Microfluidics

This lecture will explore translational opportunities spanning generation of gaseous neuromodulators to microfluidic technologies, highlighting hydrogen sulfide as a therapeutic regulator of neurovascular signalling using a specific animal model. I will further discuss design and fabrication of microfluidic platforms for ultrasensitive biomarker detection, enabling precision diagnostics, disease monitoring, and acceleration of molecular discoveries into clinically deployable healthcare solutions.

References

1. Life Sci. (2026) (<https://doi.org/10.1016/j.lfs.2026.124370>)
2. J. Proteome Res., 2026, 25, 1492-1506.
3. Adv. Healthcare Mater. (2026) (<https://doi.org/10.1002/adhm.202503454>)
4. ACS Chem. Neurosci., 2025, 16, 3323-3339.
5. Langmuir 2024, 40, 24463–24470.

About the speaker

Prof Sandeep Verma has been working at Indian Institute of Technology Kanpur since 1997. He is also an Honorary Adjunct Professor at School of Science, Royal Melbourne Institute of Technology University, Melbourne; School of Agriculture, Biomedicine and Environment, La Trobe University, Melbourne, Australia, and Distinguished Visiting Professor at Shiv Nadar Institution of Eminence, New Delhi. Prof Verma is currently leading the Gangwal Medical School, IIT Kanpur.

His research interests include machine learning for new antibiotics, chemical neuroscience, and microfluidic healthcare devices. With over 260 publications and 14 patents to his credit, his work has been recognized by Shanti Swarup Bhatnagar Prize, JC Bose Fellowship, SMC Gold Medal, INAE Abdul Kalam Technology Innovation National Fellowship, Swarnajayanti Fellow, Honorary Doctorate, Goethe University Frankfurt, Germany, and Honorary Doctor of Science, Amity University Rajasthan, to name a few. He is an elected Fellow of Indian National Science Academy, Indian Academy of Sciences, National Academy of Sciences, India, Indian National Academy of Engineering, and Royal Society of Chemistry (UK).

He served as Secretary, Science and Engineering Research Board, Government of India (2019-2022), on Prime Minister's Office Vaccine Task Force for SARS-Cov-2, Government of India (2020-2021), and is serving as a Member, Governing Council, Indian National Academy of Engineering and Vice President, Society for Materials Chemistry, BARC. He is a Member, Executive Council, Global Consortium of Innovation and Engineering in Medicine, Carle Illinois School of Medicine, University of Illinois Urbana-Champaign, USA. He has been a Visiting Professor at University of Konstanz, Goethe University Frankfurt, University of Edinburgh, National University of Singapore, and Kyoto University, to name a few.

Prof Verma is also the Founder of a start-up Stablin Biosciences, which specializes in production and formulation of thermostable therapeutic proteins.