

## ISCB AWARD FOR EXCELLENCE 2022 IN DRUG RESEARCH FOR THE YEAR 2022



**Professor Diwan S Rawat**

FNASc, FRSC, CChem(London)

**Department of Chemistry, University of Delhi**

Professor Diwan S Rawat, is a Senior Professor of Chemistry at University of Delhi. He obtained masters degree from Kumaun University, Nainital in 1993 and was honored with the merit certificate for securing first position in the University. He did his Ph.D. in Medicinal Chemistry from Central Drug Research Institute, Lucknow in 1998. After completing his PhD, he worked two years in a Pharmaceutical Industry and did postdoctoral work at Indiana University (1999-2001) and Purdue University, USA (2001-2002). He was an Assistant Professor (2002-2003) of Medicinal Chemistry at National Institute of Pharmaceutical Education and Research (NIPER), Mohali and joined Delhi University in 2003, and he was promoted to Full Professor in 2010. Prof. Rawat has published 162 research papers, authored a book (book was forwarded by Nobel Laureate, Prof DHR Barton), five book chapters, and seven patents to his credit. His work has been cited over 6125 times with *h*-index of 45 and *i*-10 index 125. His research interests lies in the areas of development of small organic molecules as anticancer, antimalarial, antimicrobial and anti-Parkinson agents and nano-catalysis. One of his compounds has licenced to NurrOn Pharamaceuticals, Boston, USA for the development as a drug for the treatment of Parkinson's disease.

Prof Rawat has been elected as a Fellow of National Academy of Sciences (FNASc, 2021), received Vasvik research award (2021), Special Appreciation Award for Exemplary Services, University of Delhi (2021), Platinum Jubilee Lecture Award, Indian Science Congress (2021), Professor SP Hiremath Memorial Award, Indian Council of Chemist (2016); Gold Badge and Diploma, International Scientific Partnership Foundation, Russia (2015); Professor RC Shah Memorial Lecture Award, Indian Science Congress (2015); ISCB young scientist award (2010); CRSI young scientist award (2007); Prof. D. P. Chakraborty 60<sup>th</sup> Birth Anniversary Commemoration Award, Indian Chemical Society (2007).

Rawat was elected President of Chemical Sciences Section of Indian Science Congress for theyear 2019-20. Prof. Rawat is a Visiting Professor at Japan Advanced Institute of Science and Technology (JAIST), Japan and is a Fellow of Royal Society of Chemistry (FRSC) and CChem (London). Professor Rawat has supervised 26 PhD students.

Prof. Rawat is an Associate Editor of Scientific Reports (Nature Research Journal), RSC Advances (Royal Society of Chemistry), and also serves on the Editorial Advisory Board of ACS Bioconjugate Chemistry, Anti-Cancer Agents in Medicinal Chemistry, and Marine Drugs. He served as a Guest Editor of Anti-Cancer Agents in Medicinal Chemistry and Current Proteins and Peptides.

Over the years, Prof Rawat served the University with various administrative capacities and current he is serving as Dean Examination of University of Delhi. Under his leadership a massive digitization process of examination system was initiated and he created a history by releasing 1.78 lakh digital degrees in 97<sup>th</sup> annual convocation of the University of Delhi.

**Total Publications:** 162;

**Citations :** 6000 ;

**h-index :** 45;

**i10-index:** 125

**PhD Supervision :** 26

## ISCB YOUNG SCIENTIST AWARD IN CHEMICAL SCIENCES FOR THE YEAR 2022



**Dr Virendra Vikram Singh**

**Scientist E**

**Defence Research & Development Establishment (DRDE), Ministry of Defence, DRDO Gwalior-474002 (MP), India**

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**Total Citation: 2033, Average Citation: 42, H index: 21**

**Total Publication: 48, Patents: 05, Book chapters: 02**

### **BIOGRAPHY:**

Dr. Virendra Vikram Singh has received M.Sc. degree from Banaras Hindu University, Varanasi, India in 2006. In 2013, He received his Ph.D. from Jiwaji University, Gwalior, India in 2011. Dr. Singh has worked as Post Doctoral Scientist in University of California, San Diego, USA under the supervision of Dr. Joseph Wang Distinguished Professor Dept of Nanoengineering & Director of Wearable Sensors. Dr. Singh is presently working as Defence Scientist in Defence R & D Establishment (DRDE), DRDO, India since 2009. He has more than 13 years of research experience. Dr. Singh has gained expertise in the main thrust areas of Chem-Bio defence i.e. Detection, Protection and Decontamination. His main contributions are in the area of advanced material development viz. Graphene, impregnated carbon, nanoparticles, ionic liquid based detection technology and expanding their potential applications for enhanced security monitoring and decontamination of chemical and biological warfare agents (CBWA) to combat these weapons of mass destruction more effectively and in a simplified manner material for toxic gases removal. Further he has added value by integrating the above basic science to develop useful products and technologies for Military application like NBC suit, Canister, Filter & electrochemical agent detector. He has also worked on the Micromotors based technology to address the green house gases, production of green energy, targeted cancer killing, destruction of chem-bio threat. His one of the paper is highlighted in **BBC news** (<http://www.bbc.com/news/science-environment-29846635>) and some of the Research work is highlighted in **Science, Nanowerk, and Royal Chemistry World**.

Dr. Singh, scientific innovation and research capabilities has paved the way for the development of advanced material and many defence technologies and engaged in pursuance of Self Reliance in Chem-Bio defence technologies under the umbrella of “Atmanirbhar Bharat”.

## ISCB YOUNG SCIENTIST AWARD IN BIOLOGICAL SCIENCES FOR THE YEAR

2022



### **Dr. Pranjal Chandra, PhD, FICS, MNASc, MRSC (London)**

Assistant Professor and Ramanujan Fellow

Fellow, Indian Chemical Society

Member, Indian National Young Academy of Sciences, INSA

Advisor: Biomedical Sensors Domain Systems

IET, London United Kingdom

Laboratory of Bio-Physio Sensors and Nanobioengineering

School of Biochemical Engineering

Indian Institute of Technology (BHU), Varanasi

Varanasi - Uttar Pradesh 221005, India

Email : [pranjalchandra13@gmail.com](mailto:pranjalchandra13@gmail.com)

### **Brief Bibliography**

Pranjal Chandra is an Assist/Professor at the School of Biochemical Engineering, Indian Institute of Technology (BHU), Varanasi, India. He earned his Ph.D. from Pusan National University, South Korea and did post-doctoral training at Technion-Israel Institute of Technology, Israel. His research focus is highly interdisciplinary, spanning a wide range in biotechnology, nanobiosensors, material engineering, and nanomedicine. He has designed several commercially viable biosensing prototypes that can be operated for onsite analysis for biomedical diagnostics. He is an associate editor / editorial board member of various international journals including Scientific Reports, Sensors International, Frontiers in Bioengineering and Biotechnology, Molecules, Frontiers in Sensors, Green Analytical Chemistry. He is an expert member / reviewer of various national and international funding agencies. He has also been appointed as the Advisor for the Biomedical Sensors Domain and Sensor Networks Systems at the Institution of Engineering and Technology (IET), Michael Faraday House, LONDON, United Kingdom. Prof. Chandra has authored of over 125 high impact publications including research / reviews papers in journals namely, *Biosensors & Bioelectronics*, *Analytical Chemistry*, *Chemical Communications*, *Microchemical Journal* etc. He has published 18 books on various aspects of biosensors/medical diagnostics / material engineering. He has guided 5 PhDs and currently supervising 8 PhD students. Prof. Chandra is the recipient of many prestigious awards, coveted honours, and fellowships such as: Fellow of Indian Chemical Society; Shakuntala Amirchand Award 2020 by Indian Council Of Medical Research;

FSSAI: Eat Right Award-2022 (Government of India); DST Ramanujan fellowship (Government of India); Early Career Research Award (ECRA) (DST, Government of India); BK -21 and NRF fellowship, South Korea; Technion Post-Doctoral Fellowship, Israel; Nano Molecular Society India Young Scientist Award; Biotech Research Society India Young Scientist Award; Young Engineers Award 2018; Highly Cited Corresponding authors in The Royal Society of Chemistry (RSC), Cambridge, London; Top 10% cited article in the General Chemistry Section RSC Journal, Cambridge, London, Gandhian Young Technology Innovation Award (GYTI) 2020, etc. Dr. Chandra is also listed among the world's top 2% scientists in the year 2020 and 2021 by Stanford University, USA. **Homepage:** [www.chandraslab.com](http://www.chandraslab.com)

**Total Citation:** 5142 (as per the data 22-09-2022)

**Average Citation:**41

**H index:**45

**List of selected publications (Last 5 Years, selected):**

- **Total number of publications: 125 (Cumulative impact factor: 500+) and 18 books.**
- **Total Citations: 5150 +, h-index - 46, i-10 index – 86**



## ISCB BEST TEACHER AWARDS

### Brief Bibliography of Rajeev Sakhuja

#### **Dr. Rajeev Sakhuja**

Obtained his M.Phil. and Ph.D. degrees from the Department of Chemistry, University of Delhi,

New Delhi in the area of heterocyclic chemistry. Following this, he pursued his postdoctoral research with Prof. Alan R. Katritzky at the Center of Heterocyclic Compounds, University of Florida, Gainesville, and thereafter with Professor Raymond Booth at Department of Medicinal Chemistry, University of Florida from 2009-2012. After returning, he joined the Department of Chemistry, BITS Pilani, Pilani Campus as an Assistant Professor in March 2012. Dr. Sakhuja is presently an Associate Professor in Department of Chemistry, leading an independent research group at Birla Institute of Technology & Science, Pilani where his current area of research interests lies in the development of metal-catalyzed and metal-free strategies for the functionalization of heterocycles, synthesis of biologically important heterocyclic scaffolds, along with the development of organic materials with sensing and gelation abilities. His effective contribution in these areas has fetched him 70 research articles, 4 reviews in peer-reviewed journals of international repute. He has successfully completed four sponsored projects funded by government agencies (DST, SERB & UGC), and private organization (BITS seed grant & additional research grant) in the past ten years.

**Dr Ravindra Vikram Singh, Ph.D., FRSC**

## Director and Head- India R&D, Technology and Innovation

Sigma-Aldrich (Merck KGaA), Bangalore-560100, Karnataka

### PROFILE

An energetic, effective, and passionate Science and Technology (S&T) and Operations Leader with ~23 years of industrial experience (after PhD) who believes that with hard work, drive, and passion it's easy to make Impossible Possible

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### ACTIVITIES AND INTERESTS

Public speaking, lectures, and seminars. Motivational speaker. Coaching and Mentoring. Future Thinking- Thinking Big. Sustainability- Digital and Automation. Social work- volunteering. Stay Positive

### MEMBERSHIP AND AFFILIATIONS

Fellow of Royal Society of Chemistry (FRSC, UK). Member of American Chemical Society (MACS, USA). Life Member of Material Research Society of India (MRSI, India). Member of Doctoral Committee at VIT, Vellore, Tamil Nadu. Member of the Syllabus Restructuring Committee, Indian Institute of Technology, Indore (M.Sc. Chemistry). Expert reviewer of the Chemico-Biological Interactions- Elsevier and Journal of Cheminformatics- Springer. Expert Reviewer of Book Proposals for CRC Press (Taylor & Francis Group), Springer International Publishing AG and WILEY (John Wiley & Sons, Inc., USA). **Honorary Professor** (visiting) at SRM University, Sonapat, NCR, INDIA. **Industrial Advisor** for Society of Chemical and Synthetic Biology (SCSB), INDIA.

### BIO-SKETCH

Dr Ravindra received his M. Sc and Ph. D from [Lucknow University](#) in 1999, and then he joined Lupin Pharmaceutical as E3-Grade scientist. In 2002, he joined GE India Technology Centre in Bangalore where he worked until 2007. He joined Jubilant Life Sciences, Noida in 2007 as a Group Leader and worked there until 2010. He joined Sigma-Aldrich Chemicals, Bangalore in 2010 as Principal Scientist, which was acquired by Merck (Merck KGaA, Germany) in 2015, and presently he is serving as its Director and Head of R&D, Technology, and Innovation business in India.

Dr Ravindra is a passionate Science and Technology (S&T) and Operations Leader in Life Science and Pharma Sector, and a Techno Commercial Expert with ~27 years of intensive research experience in Chemical Research and Development, Industrial chemistry, Synthetic Organic and Medicinal Chemistry, Emerging and Core chemistry areas, Discovery chemistry- design and development of new chemical entities (NCEs), Technology development and transfer from bench-scale (laboratory) to commercial

manufacturing. He is creative problem solver, motivator and an effective communicator, engaging presenter with strong public speaking skills. Dr Ravindra promotes use of New Technologies and Sustainability through Automation and Digital in R&D and Manufacturing Operations.

He participated in several national & international conferences and symposiums as guest of honor, chaired scientific sessions, delivered plenary and invited lectures. He has published several articles in peer-reviewed international journals, and co-inventor in more than dozens of patents (US, WO & EP). Dr Ravindra is actively engaged in global business promotion initiatives, setting up of new labs and facilities, driving growth plans and strategies, training, and development, mentoring and coaching, he talks about diversity and inclusion in business. He is recipient of several awards in his professional career e.g., prestigious **MERCK SCIENCE AWARD-2021 (INTERNATIONAL)**, **LIFETIME ACHIEVEMENT AWARD 2022** from SCSB, India, **R&D INNOVATION OF THE YEAR AWARD** (2021 and 2020) and **R&D IMPOSSIBLE-POSSIBLE AWARD**, Performance Excellence, Team Excellence, Problem Solving, Innovation @WORK, Management and Patent Awards. He is **MEMBER OF DREAM TEAM OF CHEMISTRY EXPERTS @MERCK** (Global) and a Six Sigma Green Belt (DMAIC and DFSS) certified professional.