

ISCB LIFETIME ACHIEVEMENT AWARD

ISCB LIFETIME ACHIEVEMENT AWARD IN CHEMICAL SCIENCES

Prof. (Dr.) Jai Pal Mittal

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Prof. Jai Pal Mittal is an internationally recognized Photo and Radiation Chemist from India where he started this new area of research right from beginning after starting his career by publishing some important publication in the most reputed international Scientific research journals like SCIENCE and NATURE etc. He created a very large school of Photo & Radiation Chemistry and set up most modern Photochemical techniques involving Laser Pump and Probe Systems involving nanosecond to femtosecond time resolutions. He used these very judiciously to publish more than 300 papers in the international journals. His area of interest spans a wide area from Fullerenes to DNA and amino-acid photochemistry. He has also pioneered the complimentary approach of Radiation Chemistry and Photochemistry. His works in the area of Infra Red Laser Chemistry deserves special mention towards pioneering efforts to open novel reaction channels.

He has also been the President of the National Academy of Sciences, India. In past, he has been the President of the Indian Chemical Society and also the President of the Indian Society of Radiation & Photochemical Sciences. Dr. Mittal is currently the President of the Asian Photochemists Association (APA) which has the headquarters in Japan. Recently Prof. Mittal was also honoured by the President of India by conferring on him one of the highest Civilian award “Padmashree” for his Excellent contribution to Photochemistry by using the complimentary techniques of Laser Flash Photolysis & Pulse Radiolysis” and Establishing the Asian

Photochemistry Association. He has been conferred the prestigious APA Research Award 2005 and the Japanese Photo-chemists Association honoured him with Special JPA Distinguished Photo-chemist Award at Matsuae in 2003.

ISCB AWARD FOR EXCELLENCE-2016

ISCB AWARD FOR EXCELLENCE-2016, IN THE AREA OF CHEMICAL SCIENCES

Professor G. Mugesh, FASc, FNASc, FRSC

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Prof. Mugesh is a Professor and J. C. Bose National Fellow at the Department of Inorganic & Physical Chemistry at Indian Institute of Science, Bangalore. His research involves bioinorganic chemistry and biomedical research. His recent efforts are directed toward understanding the antioxidant activity of synthetic compounds in mammalian cells, the thyroid hormone metabolism and thyroid related disorders. He is an author of ~120 publications in international peer reviewed journals and is a recipient of several awards/fellowships, which include: Shanti SwarupBhatnagar Prize (2012); AstraZeneca Excellence in Chemistry Award (2012); CRSI Bronze Medal (2011); CDRI Award for Excellence in Drug Research (2010); Swarnajayanti Fellowship, Government of India (2006-07); Ramanna Fellowship, DST (2006). He is a fellow of the National Academy of Sciences, India (2012), and Indian Academy of Sciences (2012). He serves in the Editorial or Editorial Advisory Boards of Bioorganic Chemistry (Elsevier), Scientific Reports (Nature Publishing Group); ChemPlusChem (Wiley-VCH); Archives of Biochemistry & Biophysics (Elsevier); Journal of Chemical Sciences, (IAS).

Representative Publications (last 5 years):

1. Vernekar, A. A.; Das, T.; Mugesh, G. *Angew. Chem. Int. Ed.* **2015**, *54*, DOI: 10.1002/anie.201510355/.
2. Mondal, S.; Mugesh, G. *Angew. Chem. Int. Ed.* **2015**, *54*, 10833.
3. Mondal, S.; Manna, D.; Mugesh, G. *Angew. Chem. Int. Ed.* **2015**, *54*, 9298.

4. Bhowmick, D.; Srivastava, S.; DSilva, P.; Mugesh, G. *Angew. Chem. Int. Ed.* **2015**, *54*, 8449.
5. Raja, K.; Mugesh, G. *Angew. Chem. Int. Ed.* **2015**, *54*, 7674.
6. Vernekar, A. A.; Sinha, D.; Srivastava, S.; Paramasivam, P. U.; D'Silva, P.; Mugesh, G. *Nature Commun.* **2014**, *5*, 5301.
7. Manna, D.; Roy, G.; Mugesh, G. *Acc. Chem. Res.* **2013**, *11*, 2706.
8. Manna, D.; Mugesh, G. *J. Am. Chem. Soc.* **2012**, *134*, 4269.
9. Manna, D.; Mugesh, G. *J. Am. Chem. Soc.* **2011**, *133*, 9980.
10. Manna, D.; Mugesh, G. *Angew. Chem. Int. Ed.* **2010**, *49*, 9246.
11. Bhabak, K. P.; Mugesh, G. *Acc. Chem. Res.* **2010**, *43*, 1408.
12. Sarma, B. K.; Manna, D.; Minoura, M.; Mugesh, G. *J. Am. Chem. Soc.* **2010**, *132*, 5364.

Total Citations: 4715

Average Citation: 40.00

H index: 35

ISCB YOUNG SCIENTISTS AWARD-2016

ISCB YOUNG SCIENTISTS AWARD-2016 IN CHEMICAL SCIENCES

Dr. Indresh Kumar

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Indresh Kumar did his B.Sc. (Chemistry) and M.Sc. (Organic Chemistry) from Ch. Charan Singh University, Meerut (U. P.) India. He completed his Ph. D. degree under the supervision of Dr. C. V. Rode (Scientist-F) at National Chemical Laboratory, Pune/ University of Pune, Pune during 2007-08. After his postdoctoral study with Professor Yujiro Hayashi at Tokyo University of Sciences Tokyo, he joined in 2009 as Faculty at Shri Mata Vaishno Devi University, Katra (J&K) India. In 2012, he moved to his present position at Birla Institute of Technology and Science Pilani, Pilani Campus, Rajasthan. His main research interests are asymmetric organocatalysis, development of new synthetic methodology, and total synthesis of biologically active compounds.

Dr. Kumar has authored 27 research paper in the peer-reviewed international journals in the area of synthetic organic chemistry. His research work has been widely recognized and highly cited in the scientific community.

Selected publication in last five years:

Tetrahedron: Asymmetry2010, 21, 2703; **J. Am. Chem. Soc.**, 2011, 130 (50), 20175; **J. Ind. Inst. Sci.**,2011, 91:4, 455 (**invited one**); **Tetrahedron: Asymmetry**2012, 23, 225; **Chem. Commun.**,2012, 48, 6975;**RSC Advances**2012, 2, 8922; **Org. Biomol. Chem.**, 2013,11, 709; **Chem. Commun.**, 2013, 49, 5645; **RSC Advances**2014, 4, 16397; **RSC Advances**2014, 4, 34548;

Org. Biomol. Chem., 2015, 13, 1280; *Org. Lett.*, 2015, 17, 5582 (Highlighted in SYNFACTS 2016, 12(1), 0026).

Other achievements:

(i) Award of "Outstanding Potential for Excellence in Research and Academics (OPERA)" in **2015** from BITS Pilani. (ii) Award for the Best Oral presentation during FPCBS-**2013** at Pune University, Pune. (iii) Award of "INSA-Visiting Scientist Fellowship-**2013**" by INSA-New Delhi. (iv) Award of Best Poster presentation during International Symposium on "Chemistry and Chemical Biology of Natural Products" (CCBNP-2012) at ICT-Hyderabad (**2012**) (v) Award of "IASc-INSA-NASI Summer-Fellowship-**2011** (Visiting Faculty at UoH, Hyderabad)" (vi) Award of "INOUE-Post-doctoral fellowship" by INOUE Research Foundation, Japan (**2008**) (vii) Award of "Young Indian Scientist Travel Grant" by BASF-India for year **2006-07**.

ISCB YOUNG SCIENTISTS AWARD-2016

ISCB YOUNG SCIENTISTS AWARD-2016 IN BIOLOGICAL SCIENCES

Dr. Arun K. Shukla

Assistant Professor

India Institute of Technology Kanpur

Kalyanpur, Kanpur -208 016 (U.P.), INDIA



Summary of achievements

Dr. Shukla's research program is focused on understanding the structure and function of G Protein-Coupled Receptors (GPCRs). His research work has provided fundamental insights into the paradigms of GPCR activation, signaling and regulation. GPCRs constitute the largest class of cell surface receptors in the human genome and they are targeted by about half of the currently prescribed medicines. Direct investigation of GPCR biology, especially their structural characterization, is very challenging endeavor and it is a research domain that is not pursued much in the country. Therefore, Dr. Shukla's research program is establishing a new line of research in India that has tremendous potential for basic biology and translational outcomes. Dr. Shukla has published 35 (thirty five) papers in international journals of high impact including *Nature*, *Cell*, *Science Signaling*, *PNAS*, *JBC*. The cumulative citations of Dr. Shukla's research papers are more than 2000 with an average citation of 58 and an h-index of 21. Dr. Shukla's papers are featured on the cover page of *Angewandte Chemie International edition*, *Science Signaling* and *Nature Reviews Molecular Cell Biology*. Dr. Shukla has edited two volumes of *Methods in Enzymology* book series focused on Membrane Proteins, a special issue of the *European Journal of Pharmacology* focused on GPCRs and a special volume of *Methods in Cell Biology* focused on GPCRs. Dr. Shukla is also an Editorial Board Member of PLOS ONE, one of the highly respected international journals in the field of biological Sciences. Dr. Shukla has presented invited lectures at multiple national and international conferences, biotechnology ventures and academic institutions. Dr. Shukla is a recipient of Innovative Young

Biotechnologist Award from DBT, Intermediate Fellowship from the Wellcome Trust DBT Indian Alliance and Ramanujan Fellowship from DST.

Brief statement for citation

Dr. Shukla has made seminal contribution in the area of membrane proteins and cellular signaling with particular emphasis on G Protein-Coupled Receptors (GPCRs). Dr. Shukla's research has provided fundamental insights in to our understanding of GPCR-ligand interaction, GPCR activation and arrestin mediated down-regulation of GPCRs.

Total citations : 2062 (based on google scholar as of December 28th 2015)
Average Citation : 58 per paper (based on google scholar as of December 28th 2015)
H index : 21 (based on google scholar as of December 28th 2015)

Selected publications (LASTFIVE YEARS)(*corresponding author)(Total publications = 35, last five years = 15)

1. Kumari P, Ghosh E and **Shukla AK***. Emerging approaches to GPCR ligand screening for drug discovery. *Trends in Molecular Medicine*, 2015, Nov;21(11):687-701.
2. Srivastava A, Gupta B, Gupta C and **Shukla AK***.Emerging functional divergence of β -arrestin isoforms in GPCR function.*Trends in Endocrinology and Metabolism*, 2015 Nov;26(11):628-42.
3. Ghosh E, Kumari N, **Shukla AK***. GPCR-Ligand Interactions.*Cell*, 2014 Dec 18;159(7):1712-1712.e1.
4. Ghosh E, Kumari P, Jaiman D, **Shukla AK***. Methodological advances: the unsung heroes of the GPCR structural revolution. *Nature Reviews Mol Cell Biol*. 2015 Feb;16(2):69-81. **Cover Page Article**
5. **Shukla AK[#]**, Westfield GH[#], Xiao K[#] et al., Visualization of arrestin recruitment by a G-protein-coupled receptor.*Nature*, 2014 Aug 14;512(7513):218-22.
6. **Shukla AK[#]**, Manglik A[#], Kruse AC[#] et al., Structure of active Beta-Arrestin1 bound to a G protein-coupled receptor phosphopeptide. *Nature*, **2013** May 2;497(7447):137-41.

ISCB DISTINGUISHED WOMEN SCIENTISTS AWARD-2016

ISCB DISTINGUISHED WOMEN SCIENTISTS AWARD-2016 IN CHEMICAL SCIENCES

Dr (Mrs) Farukh Arjmand

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Dr (Mrs) Farukh Arjmand was born in November, 1964, currently working as Professor of Chemistry, Aligarh Muslim University, Aligarh, India since 2009. She has completed her masters and Ph.D in chemistry from Aligarh Muslim University, Aligarh and has vast research experience of 24 years in the specialization area of bioinorganic chemistry. Her research focus is on medicinal inorganic chemistry. She works on “Design and Synthesis of chiral metal-based antitumor chemotherapeutic drug entities” and in vitro interaction studies of metal-based compounds with biomolecules *viz*, DNA, RNA and nucleotides. She has published more than 108 research articles pertinent to her specialization area in the peer reviewed journals of international repute, has contributed 42 articles to conferences/symposium and has two patents. She has contributed a chapter “Antitumor activity of tin complexes” to Encyclopedia of Metalloproteins (Springer, 2012). Dr. Arjmand has successfully guided 11 Ph.D and 2 M. Phil students and has run five major research projects as PI on the design of metal-based drug candidates awarded by UGC, CSIR and DBT, Govt of India (2001–09) and has visited many countries (China,USA,Egypt) for academic pursuits. She has joint research collaborations with national and international research institutes, IIT Kharagpur, IICT, Hyderabad, ACTREC, Mumbai (India) USTC, China, USM, Malaysia, Materials Chemistry Laboratory Oujda, Morocco and Institut de Physique de Rennes – UMR 6251, universite de Rennes 1, France and National Laboratory Advanced Photon Source, 9700 S. Cass Avn., Bldg 437 E004, ARGONNE,IL 60439,USA.