# SHILPI GUPTA, PhD

Department of Chemistry, Hindu College

Sonipat, Haryana-131001

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https://sites.google.com/view/drshilpigupta-homepage



Extensive Organic Chemistry Research Expertise | Team Worker | Published Author & Speaker

#### **Previous:**

# Feb 2017-Feb 2018: SERB INDO-US POSTDOCTORAL RESEARCH FELLOW

Chapman University School of Pharmacy, 9401 Jeronimo Rd., Irvine, CA 92618-1908, USA

# April 2011-Sept 2013: POSTDOCTORAL RESEARCH FELLOW

Institute for Chemistry and Biochemistry, Free University Berlin, Takustr. 3, 14195 Berlin, Germany

# **CORE COMPETENCIES**

Teaching | Research | Scientific Project Management | Scientific Writing and Presentation | Mentoring | Organic Chemistry | Biochemistry | Interdisciplinary Research | Data Interpretation | Cross-Team Collaboration

- Accomplished PhD and Post-doctoral research experience as Sub-group leader, involved in design, synthesis and development of small molecular drugs, polymeric nanocarriers, and peptide chemistry -Expertise in synthesis, purification, analysis, data interpretation - Published original articles and review article, given presentations at scientific meetings.
- Assistant Professor, researcher, and mentor; fostering interdisciplinarity and team spirit, committed to
  promoting a highly interactive and collaborative environment. Strong communication skills, initiates and
  manages collaborative efforts.
- International research experience having worked in India, Germany, and US. Fluent in English and Hindi.

## **PROFESSIONAL EXPERIENCE**



Assistant Professor in Chemistry Hindu College, Sonepat, Haryana, India Oct 2013-present

I am honored to serve as an Assistant Professor and independent researcher at the academic hub of Hindu College, Sonipat, Haryana, India, fueling intellectual curiosity and nurturing the next generation of scholars. At the heart of my role lies a fervent commitment to excellence in both teaching and research. Through dynamic and engaging pedagogical methods, I am dedicated to empowering undergraduate and graduate students with the knowledge and skills they need to thrive in their academic and professional pursuits. From captivating lectures to hands-on practical training, I leverage a diverse array of learning modalities and embrace blended learning approaches to create an immersive and transformative educational experience. Beyond the classroom, I am deeply engaged in pushing the boundaries of knowledge through independent research endeavors, exploring innovative avenues that hold promise for advancing our understanding of Organic Chemistry. As an Assistant Professor at Hindu College, I am driven by boundless energy and a relentless passion for shaping minds, fostering innovation, and leaving an indelible mark on the academic landscape.

# INTERNATIONAL POSTDOCTORAL RESEARCH & MENTORING EXPERIENCE



# SERB Indo-US Post-doctoral Fellow # Chapman University School of Pharmacy

Irvine, California, USA
(Fully funded visiting position for 1 year)
Advisor: Dr Rakesh Tiwari
Supervised 1 Ph.D. and 5 Master students on their research projects for their thesis.

Feb 2017-Feb 2018

I had the honor of serving as a SERB Indo-US Postdoctoral Fellow at the dynamic research campus of the Chapman University School of Pharmacy (CUSP) in Irvine, California, USA. Amidst the backdrop of innovation and discovery, I delved deep into the realm of anti-cancer drug development, Solid Phase Peptide Synthesis (SPPS), and cyclic peptides. Fueled by the prestigious SERB Indo-US Postdoctoral research grant from the Department of Science and Technology (DST), Government of India, I embarked on a transformative journey to push the boundaries of scientific knowledge and bring hope to those battling cancer. As an accomplishment, the designed and synthesized compounds were screened for anti-cancer activity by the National Cancer Institute (NCI), funded by the NIH. Additionally, the "Open Innovation Drug Discovery (OIDD) Program" at Eli Lilly and Company, Indianapolis, USA, screened the compounds for potential use against neglected tropical diseases. Beyond my research pursuits, I had the privilege of mentoring and guiding Ph.D.'s and Master students as they embarked on their own scientific odysseys. Armed with a sharp intellect and a knack for critical thinking, I tackled challenges head-on, breaking them down into manageable pieces, evaluating solutions with precision, and making informed decisions that propelled our research forward.



# Post-doctoral Fellow and Sub-group Leader "Multivalent Architecture" # Institute of Chemistry and Biochemistry,

Free University Berlin, Germany Advisor: Prof. Rainer Haag

April 2011-Sept 2013

I am delighted to reflect on my tenure as a Postdoctoral Fellow at the vibrant research landscape of Free University Berlin (FUB) in Berlin, Germany, where I pioneered innovative research endeavors at the forefront of drug design and development. Within this dynamic role, I led the design, synthesis, and development of polymeric nano-carriers, and dendritic bio-conjugates, initiating novel approaches to address complex medical challenges. As the sub-group leader of "Multivalent Architectures," I had the privilege of mentoring and guiding a talented cohort of researchers, including 5 Postdoctoral fellows, 10 Ph.D. students, and 3 Master students, fostering a collaborative and intellectually stimulating environment. My dedication to advancing scientific knowledge is reflected in the publication of approximately 10 peer-reviewed research articles in esteemed international journals, showcasing our findings and highlighting their potential applications. Additionally, I actively engaged in the scientific community by participating in research seminars, collegiate meetings, and international conferences, where I explored new technologies and exchanged ideas with fellow researchers. Collaborating with leading industries and Research Consortia such as Roche, Livimode, Noxxon, Mivenion, and esteemed institutions like Charite hospital, I forged partnerships that fueled interdisciplinary research and expanded our collective understanding of complex topics. As I look back on my time at Free University Berlin, I am energized by the impact of our collaborative efforts and inspired to continue pushing the boundaries of scientific discovery in my future endeavors.

# NATIONAL AND INTERNATIONAL VISITING RESEARCH EXPERIENCE



# # Visiting Ph.D.

Advisor: Prof. Rainer Haag Institute of Chemistry and Biochemistry, Free University Berlin, Germany Aug 2010-Feb 2011

(6 Months)

Feb 2009-July 2009

(6 Months)



# # Visiting Master's Student

# (Indian Academy of Science Fellow)

Advisor: Dr Tushar K. Chakraborty
Organic Division – III,
Indian Institute of Chemical Technology,
Hyderabad

May 2005-June 2005

#### **EDUCATION**



## # Ph.D.

Department of Chemistry, University of Delhi, India Advisor: Prof. Sunil K. Sharma

Sept 2006 - Feb 2011

**Thesis**: Design and Synthesis of Benzopyrones, Guanidinylated Peptide Nucleic Acid Building Blocks, and Chemoenzymatic Synthesis of Glycerol-Based Polymeric and Dendritic Architectures.



# # M.Sc.

Hindu College, University of Delhi, India 72.54%; University Merit Rank Holder

**July 2004 – June 2006** 



# # B.Sc.

Daulat Ram College, University of Delhi, India 76.50%; Gold Medallist-Daulat Ram College University Merit Rank Holder

July 2001 – June 2004

NODIA THE TRANS	# HSC (10+2) Sachdeva Public School, Delhi Central Board of Secondary Education (CBSE) 73.40%	April 2000 – March 2001
NODES TO SECUNDANIA DE LA CONTROL DE LA CONT	# High School (10th) Sachdeva Public School, Delhi Central Board of Secondary Education (CBSE) 80.80%	April 1998 – March 1999

## **RESEARCH & TRAVEL GRANTS**

- 2016 SERB Indo-US Postdoctoral Fellowship grant for the year 2016 for conducting research from Feb 2017-Feb 2018 supported by the Science and Engineering Research Board (SERB) and Indo-US Science and Technology Forum (IUSSTF). Grant sanctioned and utilized: Rs 25,87,455.
- Travel grant for participating in 16<sup>th</sup> Tetrahedron Symposium: Challenge in Bioorganic & Organic Chemistry held from 16/06/2015 to 19/06/2015 in Berlin, Germany by the University Grants Commission, Government of India in June 2015. Grant Sanctioned and utilized: Rs. 2,20,170.

#### **AWARDS & RECOGNITIONS**

- Recognized for securing **Top 500** rank in the International Teacher's Olympiad, demonstrating exceptional proficiency in digital education and teaching innovation conducted by upEdcucators on Feb 28, 2024.
- **Best Poster Presentation award** for research presentation at the one-day National Level Seminar on "Fostering Sustainable and Inclusive Development: Empowering Women and Girls in Science" jointly organized by Indian Science Congress Association, Rohtak Chapter and Science faculty and Women Cell G.V.M. Girls College, Sonipat, Haryana, India held on Feb 10, 2024.
- **Best Oral Presentation award** by "American Chemical Society Publications" for research presentation at the International Conference on "Advanced Developments in Chemistry and Allied Sciences (ADCAS-23)" organised by Deenabandhu Chhotu Ram University of Science and Technology, Murthal (Sonipat), India on 17-18th January 2023.
- Selected as a Master's Trainer of Guru Angad Dev-Teaching Learning Centre for conducting its various activities as an outstanding participant of One Week Faculty Development Program on "Multimedia enriched e-Content Development" from 21-26 May, 2020, jointly organized by Guru Angad Dev Teaching Learning Centre SGTB Khalsa College, University of Delhi under the Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNMTT) of MHRD.
- 2019 Best Poster Presentation award for research presentation at the 1st International Conference on "Integrative Chemistry, Biology and Translational Medicine (ICBTM-2019)" organized by Centre for Global Health, Hansraj College, University of Delhi, Delhi, India and Loyola University Chicago Stritch School of Medicine, USA during February 25-26, 2019.
- **2014 Best Oral Presentation award** for research presentation at the National Conference on "Advanced Scientific Developments in Chemical Sciences-2014" organized by Deenabandhu Chhotu Ram University of Science and Technology, Murthal (Sonipat), India on 14<sup>th</sup> March 2014.
- **2010 Six months fellowship award for research visit to the Free University of Berlin, Germany** through the "India-Germany Joint Research Collaboration" from Aug 2010-Feb 2011
- **2009 Six months fellowship award for research visit to the Free University of Berlin, Germany** through the "India-Germany Joint Research Collaboration" from Feb-July 2009

- **Young Scientist Award** at the National Conference on Recent Advances in Chemical Sciences organized by the P.G. Department of Chemistry, Government Dungar College, University of Bikaner, Bikaner Oct 5, 2008.
- 2006 University merit rank holder for M.Sc. (Organic Chem.), University of Delhi
- 2006 Junior Research Fellowship (JRF) and Eligibility for Lectureship-National Eligibility Test (NET) award by Council of Scientific and Industrial Research, Delhi, India
- 2006 GATE qualified with All India Rank-577, Score-343
- **2005** NATIONAL SCIENCE FELLOWSHIP FOR STUDENTS award by Indian Academy of Sciences, Bangalore, India for May-June 2005
- **2004 Scholarship for 'University Rank' for B.Sc. (H) Chemistry** by the Hindu College, Department of Chemistry, University of Delhi
- **2004 Certificate of Merit for securing Highest Marks in Aggregate for B.Sc. Chemistry (H), III year**, Daulat Ram College, University of Delhi
- 2004 Certificate of Merit for securing Highest Marks in all three years combined for B.Sc. Chemistry (H),
  Daulat Ram College, University of Delhi
- 2003 Certificate of Merit for securing Highest Marks in Aggregate for B.Sc. Chemistry (H), II year, Daulat Ram College, University of Delhi
- **2003** Certificate of Merit for securing Highest Marks in Physics for B.Sc. Chemistry (H), II year, Daulat Ram College, University of Delhi
- 2003 Shakuntala Chadha Memorial Prize for securing Highest Marks in B.Sc. Chemistry (H), I and II year instituted by Mrs. Lalita Chadha, Daulat Ram College, University of Delhi
- **2002** Certificate of Merit for securing Highest Marks in Physics for B.Sc. Chemistry (H), I year, Daulat Ram College, University of Delhi
- **2002 Certificate of Merit for securing Highest Marks in Chemistry for B.Sc. Chemistry (H), I year**, Daulat Ram College, University of Delhi
- 2002 Sh Hemraj Sharma Memorial Prize for securing Highest Marks in B.Sc. Chemistry (H), I year instituted by Dr. (Ms.) Pushpa Sharma, Daulat Ram College, University of Delhi.

# INTERNATIONAL PUBLICATIONS

 <u>S. Gupta</u>, S. E. Park, S. Mozaffari, B. El-Aarag, K. Parang, R. K. Tiwari "Design, Synthesis, and Antiproliferative Activity of Benzopyran-4-One-Isoxazole Hybrid Compounds", *Molecules* 2023, 28 (10), 4220. <a href="https://www.mdpi.com/2304238">https://www.mdpi.com/2304238</a>

Impact Factor-4.927 (2023)

2. Eman H. M. Mohammed, Sandeep Lohan, Tarra Ghaffari, <u>S. Gupta</u>, Rakesh K. Tiwari, Keykavous Parang "Membrane-Active Cyclic Amphiphilic Peptides: Broad-Spectrum Antibacterial Activity Alone and in Combination with Antibiotics" **J. Med. Chem.** 2022, 65, 15819,àí15839. <a href="https://pubs.acs.org/doi/full/10.1021/acs.jmedchem.2c01469">https://pubs.acs.org/doi/full/10.1021/acs.jmedchem.2c01469</a>

Impact Factor-8.039 (2021)

3. M. Singh, M. Gulia, S. B. Undre, <u>S. Gupta</u> and S. Kumar, "Study of physicochemical properties of TTDMM dendrimer (Trimesyol-1,3,5-tridimethyl malonate) with cationic and anionic surfactants to make drug delivery system more effective"; <u>International Journal of Research in Pharmaceutical Sciences</u> 2018, 9 (4), 1423-1433. Online ISSN: 0975-7538. <u>DOI:10.26452/ijrps.v9i4.1696</u>

Impact Factor: -N/A- (2017)

4. S.G.-Rodrf±guez,\* M.A. Quadir,\* <u>S. Gupta</u>,\* K.A. Walker, X. Zhang, V. Spahn, D. Labuz, A. R. - Gaztelumendi, M. Schmelz, J. Joseph, M.K. Parr, H. Machelska, R. Haag, C. Stein, "Polyglycerol-opioid conjugate produces analgesia devoid of side effects"; eLife 2017;6:e27081. ISSN: 2050-084X. https://doi.org/10.7554/eLife.27081

Impact Factor: 7.725 (2016)

5. F.S. Mehrabadi, J. Adelmann, <u>S. Gupta</u>, S. Wedepohl, M. CalderV≥n, U. Brinkmann, R. Haag, "Bispecific Antibodies for Targeted Delivery of Dendritic Polyglycerol (dPG) Prodrug Conjugates"; <u>Curr Cancer Drug Targets</u> 2016, 16 (7), 639-649. ISSN: 1873-5576 (Online), 1568-0096 (Print). <a href="https://www.eurekaselect.com/article/73537">https://www.eurekaselect.com/article/73537</a>

Impact Factor: 3.522 (2015)

<u>S. Gupta</u>, J. Pfeil, S. Kumar, C. Poulsen, U. Lauer, A. Hamann, U. Hoffmann, R. Haag, "Tolerogenic Modulation of the Immune Response by Oligoglycerol- and Polyglycerol-Peptide Conjugates";
 <u>Bioconjugate Chemistry</u> 2015, 26 (4), 669-679. ISSN: 1520-4812 (Online), 1043-1802 (Print). https://pubs.acs.org/doi/10.1021/bc500608f

Impact Factor: 4.513 (2014)

7. K. Koschek, V. Durmaz, O. Krylova, M. Wieczorek, <u>S. Gupta</u>, M. Richter, A. Bujotzek, C. Fischer, R. Haag, C. Freund, M. Weber, J. Rademann, "Peptide-polymer ligands for a tandem WW-domain, an adaptive multivalent protein-protein interaction: lessons on the thermodynamic fitness of flexible ligands "; **Beilstein J. Org. Chem.** 2015, 11, 837-847. ISSN: 1860-5397. <a href="https://www.beilstein-journals.org/bjoc/articles/11/93">https://www.beilstein-journals.org/bjoc/articles/11/93</a>

Impact Factor: 2.757 (2014)

8. S. Singh, R. Dabur, M.M. Gatne, B. Singh, <u>S. Gupta</u>, S. Pawar, S.K. Sharma, G.L. Sharma, "In Vivo Efficacy of a Synthetic Coumarin Derivative in a Murine Model of Aspergillosis" **PloS one**, 2014, 9 (8), e103039. ISSN: 1932-6203. <a href="https://doi.org/10.1371/journal.pone.0103039">https://doi.org/10.1371/journal.pone.0103039</a>

Impact Factor: 3.534 (2014)

9. M. Kumari, <u>S. Gupta</u>, K. Achazi, C. BV∂ttcher, J. Khandare, S.K. Sharma, and R. Haag, "Dendronized multifunctional amphiphilic polymers as efficient nanocarriers for biomedical applications" **Macromol Rapid Comm.**, 2014, 36 (2), 254-261. Print ISSN: 1022-1336; Online ISSN: 1521-3927. https://doi.org/10.1002/marc.201400467

Impact Factor: 4.608 (2014)

M. Kumari, A. K Singh, S. Kumar, K. Achazi, <u>S. Gupta</u>, R. Haag, S.K. Sharma, "Synthesis of amphiphilic dendronized polymers to study their self-assembly and transport behavior"; Polymers for Advanced Technologies, 2014, 25(11), 1208-1215. Print ISSN: 1042-7147; Online ISSN: 1099-1581. <a href="https://doi.org/10.1002/pat.3293">https://doi.org/10.1002/pat.3293</a>

Impact Factor: 1.964 (2014)

11. <u>S. Gupta</u>, B. Schade, S. Kumar, C. Bottcher, S.K. Sharma, R. Haag, "Dendronized Multiamphiphilic Polymers as Nonionic Drug delivery Systems for Biomedical Applications: Synthesis, Aggregation Behavior and Transport Properties"; **Small**, 2013, 9 (6), 894-904. Print ISSN: 1613-6810; Online ISSN: 1613-6829. <a href="https://doi.org/10.1002/smll.201201253">https://doi.org/10.1002/smll.201201253</a>

Impact Factor: 7.514 (2013)

12. <u>S. Gupta</u>,\* R. Tyagi,\* V.S. Parmar, S.K. Sharma, R. Haag, "Review: Polyether based amphiphiles for delivery of active components"; **Polymer**, 2012, 53, 3053-3078. ISSN: 0032-3861. <a href="https://doi.org/10.1016/j.polymer.2012.04.047">https://doi.org/10.1016/j.polymer.2012.04.047</a>

Impact Factor: 3.438 (2012)

S. Singh, S. Gupta, B. Singh, S.K. Sharma, V.K. Gupta, G.L. Sharma, "Proteomic characterization of Aspergillus fumigatus treated with an antifungal coumarin for identification of novel target molecules of key pathways"; Journal of Proteome Research, 2012, 11 (6), 3259-3268. Print ISSN: 1535-3893; Online ISSN: 1535-3907. https://doi.org/10.1016/j.polymer.2012.04.047

Impact Factor: 5.056 (2012)

A. Kathuria, N. Priya, K. Chand, P. Singh, A. Gupta, S. Jalal, <u>S. Gupta</u>, H.G. Raj, S.K. Sharma, "Substrate specificity of acetoxy derivatives of coumarins and quinolones towards Calreticulin mediated transacetylation: Investigations on antiplatelet function"; **Bioorganic and Medicinal Chemistry**, 2012, 20, 1624-1638. Print ISSN: 0968-0896; Online ISSN: 1464-3391. <a href="https://pubmed.ncbi.nlm.nih.gov/22264757/">https://pubmed.ncbi.nlm.nih.gov/22264757/</a>

Impact Factor: 2.903 (2012)

A. Kathuria, S. Jalal, R. Tiwari, A.N. Shirazi, <u>S. Gupta</u>, S. Kumar, K. Parang, S.K. Sharma, "Substituted coumarin derivatives: Synthesis and evaluation of antiproliferative and Src kinase inhibitory activities"; **Chemistry & Biology Interface**, 2011, 1(2), 279-296. Online ISSN: 2249 –4820. <a href="https://digitalcommons.chapman.edu/cgi/viewcontent.cgi?article=1102&context=pharmacy articles">https://digitalcommons.chapman.edu/cgi/viewcontent.cgi?article=1102&context=pharmacy articles</a>

Impact Factor: -N/A- (2010)

S. Gupta, M. K Pandey, K. Levon, R. Haag, A.C. Watterson, V.S. Parmar, S.K. Sharma, "Biocatalytic Approach for the Synthesis of Glycerol - based Macroamphiphiles and their Self-assembly to Micellar Nanotransporters"; Macromolecular Chemistry & Physics, 2010, 211, 239-244. Print ISSN: 1022-1352; Online ISSN: 1521-3935. https://doi.org/10.1002/macp.200900391

Impact Factor: 2.437 (2010)

# **NATIONAL PUBLICATIONS**

1. <u>S. Gupta</u> "Copper-catalyzed Click Chemistry for polyether-based dendronized multi-amphiphilic polymers and their applications" J. Mol. Chem. 2023, 3(1), 583. <a href="https://scholar.google.com/scholar?q=urn:nbn:sciencein.jmc.2023.583">https://scholar.google.com/scholar?q=urn:nbn:sciencein.jmc.2023.583</a>

Impact Factor: -N/A- (2022)

P. Kumari, M. Gulia, S. Gupta, D. Singh and S. Kumar, "An economic and efficient synthesis of acid-labile glycerol based β-thiopropionate esters for potential application in drug delivery", Chem. Biol. Lett. 2021, 8(2), 45-49. ISSN 2347–9825. https://pubs.thesciencein.org/journal/index.php/cbl/article/view/159

Impact Factor: -N/A- (2020)

3. <u>S. Gupta</u>, S. Jalal, S. Kumar, S.K. Sharma, R. Haag, "A Simple and Convenient Chemoenzymatic Approach for the Synthesis of Valuable Triacylglycerol-based Dendritic Building Blocks"; Indian Journal of Chemistry, 2012, 51B, 376-1387. Print ISSN: 0376-4699; Online ISSN: 0975-0983. <a href="https://nopr.niscpr.res.in/bitstream/123456789/14640/1/IJCB%2051B(9)%201376-1387.pdf">https://nopr.niscpr.res.in/bitstream/123456789/14640/1/IJCB%2051B(9)%201376-1387.pdf</a>

Impact Factor: 0.648 (2012)

4. <u>S. Gupta</u>, S. Singh, A. Kathuria, M. Kumar, S. Sharma, R. Kumar, V.S. Parmar, B. Singh, A. Gupta, E.V. der Eycken, G.L. Sharma, S.K. Sharma, "Ammonium Derivatives of Chromenones and Quinolinones as Lead Antimicrobial Agents"; **Journal of Chemical Sciences**, 2012, 124 (2), 437-449. Print ISSN: 0974-3626; Online ISSN: 0973-7103. <a href="https://www.ias.ac.in/article/fulltext/jcsc/124/02/0437-0449">https://www.ias.ac.in/article/fulltext/jcsc/124/02/0437-0449</a>

Impact Factor: 1.177 (2012)

<sup>\*:</sup> These authors contributed equally to this work

# WEBINARS / FACULTY DEVELOPMENT PROGRAMMES / TEACHER'S TRAINING PROGRAMMES / ONLINE COURSES UNDERTAKEN

- 1. Attended the Masterclass on "ICT Integration with Technology" conducted by upEducators on 23rd March 2024.
- 2. Attended the ACS Science Talk "Kinases Challenging and Potential Target for New Age Cancer Therapeutics" on 15th March 2024 organized by the American Chemical Society.
- 3. Attended the Masterclass on "English Integration with Technology" conducted by upEducators on 9th March 2024.
- 4. Attended the ACS Science Talk "Geogenic Ground Water Pollution: drivers and Management" on 28th Feb 2024 organized by the American Chemical Society.
- 5. Successfully completed the online orientation program on "Aligning with Vision of NEP-2020, New Accreditation System, Innovative model for Imparting Holistic Education for Teacher of HEI" conducted by Accreditation Ranking and Certification Network of India (ARCNET India) and CliMed Research Solutions, India, on February 24, 2024.
- 6. Participated in One Day Online National Webinar on Awareness of "Malviya Mission Teacher Training Program" organized by Guru Angad Dev Teaching Learning Centre, SGTB Khalsa College, University of Delhi on 22nd October 2023.
- 7. Attended the ACS Interactions "Essentials of Lab Safety" on 12th Sept 2023 organized by Hindu College, Sonipat in collaboration with the American Chemical Society.
- 8. Participated in UGC-sponsored Online Short-Term Course on: Implementation of National Education Policy (NEP) 2020" organized by Centre for Professional Development in Higher Education, Human Resource Development Centre, University of Delhi, Delhi, India during Oct 20-26, 2021.
- 9. Successfully completed One Week Online National Faculty Development Program/ Refresher Course on "Enhancing Quality of Chemistry Education in India" from 25th February to 03<sup>rd</sup> March 2021 organized by Guru Angad Dev Teaching Learning Centre, S.G.T.B. Khalsa College, University of Delhi under the Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMNNMTT) of Ministry of Education.
- 10. Completed Online Certificate Course Cum Workshop of 32 hours on "Designing Captivating Presentations with PowerPoint" organized by Department of Computer Science & Applications, Sanatan Dharma College, Ambala Cantt, Kurukshetra University, Kurukshetra from 1st January 2021 to 10th January 2021.
- 11. Participated in One Day Online National Workshop entitled "Flipped Learning Approach: A Novel ICT-Empowered Pedagogy for 21st Century Learning Needs" organized by Guru Angad Dev Teaching Learning Centre, SGTB Khalsa College, University of Delhi under the Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNMTT) of MoE on 26th November 2020 (This is equivalent to a regular National Workshop).
- 12. Completed Online Certificate Course Cum Workshop of 32 hours on "Professional Documents with Microsoft-Word" organized by Department of Computer Science & Applications, Sanatan Dharma College, Ambala Cantt, Kurukshetra University, Kurukshetra from 14th October 2020 to 28th October 2020.
- 13. Successfully completed One Week National Faculty Development Program on "Learning Management System (MOODLE) For Online Teaching-Learning" from 11 17 October 2020 organized by Guru Angad Dev Teaching Learning Centre, S.G.T.B. Khalsa College, University of Delhi under the Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMNNMTT) of MHRD.
- 14. Successfully completed 15 days Online Workshop Cum Certificate Course on "Mastering Excel: Tour from Beginners to Advance" from 23 Sept-07 Oct 2020, organized by Department of Computer Science and Application in Collaboration with E-Resource Development Cell, Sanatam Dharma College, Ambala Cantt, affiliated to Kurukshetra University, Kurukshetra.
- 15. Successfully completed One Week Faculty Development Program on "Development of Teacher's e-Kit and MOOCs in Four Quadrant Format of e-Content" from 12-20 Sept, 2020, jointly organized by Guru Angad Dev Teaching Learning Centre SGTB Khalsa College, University of Delhi under the Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNMTT) of MHRD, with "A" Grade. (This is equivalent to a one-week face to face FDP).

- 16. Participated in the One Day National Webinar entitled "Promotional Avenues for Teachers in Higher Education: CAS Regulations-2018" organized by Guru Angad Dev Teaching Learning Centre SGTB Khalsa College, University of Delhi under the Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNMTT) of MHRD held on Sept 5, 2020. (This is equivalent to a regular National Seminar).
- 17. Participated in the One Day National Webinar entitled "How to Conduct Online Teaching-Learning in COVID Times?" organized by Guru Angad Dev Teaching Learning Centre SGTB Khalsa College, University of Delhi under the Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNMTT) of MHRD held on July 22, 2020. (This is equivalent to a regular National Seminar).
- 18. Participated in the One Day National Webinar entitled "ICT Enable Higher Education in India" organized by Guru Angad Dev Teaching Learning Centre SGTB Khalsa College, University of Delhi under the Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNMTT) of MHRD held on July 13, 2020. (This is equivalent to a regular National Seminar).
- 19. Successfully completed Two Weks Faculty Development Programme on "Advanced concepts for developing MOOCs" from July 02-17, 2020, organized by Teaching Learning Centre, Ramanujan College, University of Delhi sponsored by Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNMTT) of MHRD.
- 20. Successfully completed 4 weeks MOOC course on "Cooperative Learning Pedagogy", developed under online mentoring program of UNESCO Chair on Open Technologies for Open Educational Resources and Open Learning from May 22-June 19, 2020.
- 21. Successfully completed Two Weks Faculty Development Programme on "Open Source Tools for Research" from June 08-14, 2020, organized by Teaching Learning Centre, Ramanujan College, University of Delhi sponsored by Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNMTT) of MHRD.
- 22. Successfully completed One Week Faculty Development Program on "Multimedia enriched e-Content Development" from 21-26 May, 2020, jointly organized by Guru Angad Dev Teaching Learning Centre SGTB Khalsa College, University of Delhi under the Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNMTT) of MHRD, with "A" Grade. (This is equivalent to a one-week face to face FDP).
- 23. Successfully completed Two Weeks Faculty Development Programme on "Managing Online Classes and Co-creating MOOCs:2.0" from May 18-June 03, 2020, organized by Teaching Learning Centre, Ramanujan College, University of Delhi sponsored by Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNMTT) of MHRD.
- 24. Participated in the Faculty Development Programme National Webinar entitled "Women in Higher Education: Issues and Challenges during Corona Pandemic" delivered by Prof. Sushma Yadav and Dr. Suman Sharma, organized by Guru Angad Dev Teaching Learning Centre SGTB Khalsa College, University of Delhi under the Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNMTT) of MHRD held on May 27, 2020. (This is equivalent to a regular National Seminar).
- 25. Participated in the National Webinar on "AQAR Preparation Under Revised Assessment and Accreditation Framework" organized by IQAC of Dnyandeo Mohekar Mahavidyalaya, Kalamb held on May 16-17, 2020.
- 26. Participated and successfully completed the Faculty Development Programme National Webinar entitled "e-Content Development Methodology: Four Quadrant Model, OERs and Copyright issues" delivered by Dr. Vimal Rarh, organized by Guru Angad Dev Teaching Learning Centre SGTB Khalsa College, University of Delhi under the Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNMTT) of MHRD held on May 15, 2020. (This is equivalent to a regular National Seminar).
- 27. Participated in One day virtual workshop on "How to create and conduct ICT based classroom quizzes?" organized by BSVS Educational Learning Centre, Nagpur held on May 13, 2020.
- 28. Successfully completed the online course "Basics in CHROMATOGRAPHY" jointly organized by DIPAM Foundation & Sheth M.N. Science College, Patan, held from May 7-16, 2020.
- 29. Participated in Second JNU Workshop for Empowering Teaching through Online Mode (JNU-WETOM II) held on May 9-10, 2020.

- 30. Participated in "One Day National Webinar on Effective Ways to Develop e-Content" organized by IQAC of Smt. Devkiba Mohansinhji Chauhan College of Commerce and Science, affiliated to University of Mumbai in collaboration with Knowledge Bridge, Ahmadnagar, held on May 9, 2020.
- 31. Participated in online Faculty Training Program on "Cyber Security" organized by IQAC and Department of IT & Mathematics, S.I.A. College of Higher Education in association with Indian Servers on May 7, 2020.
- 32. Successfully completed the Three-Day National Level Faculty Development Programme (Workshop) on "Skill Development for Online Teaching" organized by the IQAC of Bhavan's College, Andheri (W), Mumbai held from May 5-7, 2020.
- 33. Participated in the Faculty Development Programme: National Webinar entitled "Corona Pandemic and Economic Challenges in India" delivered by Dr. Jaswinder Singh, organized by Guru Angad Dev Teaching Learning Centre SGTB Khalsa College, University of Delhi under the Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNMTT) of MHRD held on May 4, 2020. (This is equivalent to a regular National Seminar).
- 34. Participated in the Faculty Development Programme: National Webinar entitled "Challenges and Opportunities before Indian Higher Education due to Covud-19" delivered by Prof. Ved Prakash, organized by Guru Angad Dev Teaching Learning Centre SGTB Khalsa College, University of Delhi under the Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNMTT) of MHRD held on May 2, 2020. (This is equivalent to a regular National Seminar).
- 35. Participated in the Faculty Development Programme: National Webinar entitled "Towards Excellence in Higher Education in India in the 21<sup>st</sup> Century: Challenges and Opportunities" delivered by Prof. A. K. Bakshi, organized by Guru Angad Dev Teaching Learning Centre SGTB Khalsa College, University of Delhi under the Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNMTT) of MHRD held on April 29, 2020. (This is equivalent to a regular National Seminar).
- 36. Participated in the Faculty Development Programme: National Webinar entitled "Role of Teachers in Technology driven Higher Education" delivered by Dr. Vimal Rarh, organized by Guru Angad Dev Teaching Learning Centre SGTB Khalsa College, University of Delhi under the Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNMTT) of MHRD held on April 28, 2020. (This is equivalent to a regular National Seminar).
- 37. Participated in Online National Faculty Development Programme for "Engendering the Next Generation Educators" at Nehru Arts and Science College, Coimbatore during Aril 23-28, 2020.
- 38. Attended the 'Training for "Moodle"-An Open Source Learning Management System Webinar Series' held from April 22-23, 2020, organized by Miranda House, University of Delhi.
- 39. Participated and successfully completed the Faculty Development Programme: National Webinar entitled "Re-engineering Higher Education: A Seamless Knowledge Management Sysytem for the University" delivered by Prof. K. V. Bhanu Murthy, organized by Guru Angad Dev Teaching Learning Centre SGTB Khalsa College, University of Delhi under the Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNMTT) of MHRD held on April 22, 2020. (This is equivalent to a regular National Seminar).
- 40. Participated and successfully completed the 16 weeks SWAYAM ARPIT ONLINE COURSE with the title "Online Refresher Course in Chemistry for Higher Education Faculty" for Career Advancement Scheme (CAS) promotion with "A" Grade (Percentage-91.17%) in the proctored examination held on Feb 16 2020, organized by Sri Guru Tech Bahadur Khalsa College, University of Delhi, Delhi, India during Oct-Dec 2019.
- 41. Participated in UGC-sponsored workshop on MOOCs, E-content development and Open Education Resources organized by Centre for Professional Development in Higher Education, Human Resource Development Centre, University of Delhi, India during July 12-18, 2019.
- 42. Participated and successfully completed the 3 weeks UGC sponsored inter disciplinary Refresher Course on "Emerging Issues in Science and Technology" organized by UGC-Human Resource Development Centre, Guru Jambheshwar University of Science and Technology, Hisar, Haryana, India with "A" Grade during 29 Aug-17-Sept, 2016.
- 43. Participated and successfully completed the 21<sup>st</sup> Orientation Programme (4 weeks) organized by UGC-Academic Staff College, Bhagat Phool Singh Mahila Vishwavidyalaya, Khanpur Kalan (Sonepat), Haryana, India with "A" Grade during 17 Nov-13 Dec, 2014.

# **CONVENOR-SEMINAR/WEBINAR**

- 1. Contributed as Co-Convenor in One Day National Webinar entitled "ACS Interactions-Essentials of Lab Safety" jointly organized by the Department of Chemistry, Hindu College, Sonepat, Haryana (Affiliated to Maharshi Dayanand University, Rohtak, Haryana) in collaboration with American Chemical Society (ACS) on 12th September 2023.
- 2. Contributed as Convenor in One Day National Webinar entitled "E-Learning, MOOC's and Copyright Issues" jointly organized by Guru Angad Dev Teaching Learning Centre, SGTB Khalsa College, University of Delhi under the Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNMTT) of MHRD and Hindu College, Sonepat (Affiliated to Maharshi Dayanand University, Rohtak, Haryana) on 05<sup>th</sup> November 2020. (This is equivalent to a One Day Regular National Seminar).

#### **CONFERENCES & WORKSHOPS**

- Mini-symposium of the Collaborative Research Centre (SFB) 765 about "Bio supramolecular Systems" organized by Department of Organic and Macromolecular Chemistry, Free University Berlin, Germany during June 22, 2018.
- BIOTIKOS 2016, National Symposium on Nanobiotechnology organized by Department of Biotechnology, TERI University, New Delhi, India during March 31-April 1, 2016.
- Angewandte Chemie Anniversary Symposium, by Free University Berlin, Germany during March 11-13, 2013.
- ► 6<sup>th</sup> Indo Italian workshop on "Chemistry and Biology of Antioxidants" organized by Department of Chemistry, University of Delhi and Embassy of Italy, December 10-11, 2009.
- ➤ 4<sup>th</sup> Indo-Italian Workshop on Chemistry And Biology Of Antioxidants, Department of Chemistry, University of Delhi, Delhi, December 7, 2008.
- Indo-Italian Seminar on "Green Chemistry And Natural Products", organized by Department of Chemistry, University of Delhi, Delhi, December 5-6, 2008.
- > 1st International Conference on Agrochemicals Protecting Crop, Health And Natural, Indian Agricultural Research Institute, New Delhi, January 8-11, 2008.
- ➤ 3<sup>rd</sup> Indo-Italian Workshop on Chemistry And Biology Of Antioxidants, Department of Chemistry, University of Delhi, Delhi, November 28-30, 2007.
- ▶ 9th National Symposium in Chemistry, Department of Chemistry, University of Delhi, Delhi, February 1-4, 2007.
- Carbo-XXI on Recent Developments In Carbohydrate Chemistry, by Department of Chemistry, University of Delhi, Delhi, November 26-29, 2006.

# **POSTER PRESENTATION**

- One day International Conference on "Importance of Education to Develop Scientific Temper" organized by the Department of Chemistry, Shaheed Udham Singh Govt. College, Matak Majri-Indri, Karnal, Haryana, India sponsored by Directorate of Higher Education, Panchcula, Haryana held on March 22, 2024, on the topic "Controlled Release Targeted Opioid".
- One day National Level Seminar on "Fostering Sustainable and Inclusive Development: Empowering Women and Girls in Science" jointly organized by Indian Science Congress Association, Rohtak Chapter and Science faculty and Women Cell G.V.M. Girls College, Sonipat, Haryana, India held on Feb 10, 2024, on the topic "Advanced Functional Dendrimers: Analgesic Polyglycerol-Morphine Conjugates".
- 2nd International Conference of Indian Science Congress Association-Rohtak Chapter on "Science and Technology for Sustainable Future (ICSTSF-2024)" organized by University Institute of Engineering and Technology, M.D. University, Rohtak, India held during Feb 7-8, 2024, on the topic "Chemotherapeutic potential of "Small Molecule" drugs based on Benzopyranone- Isoxazole hybrids".
- > 25<sup>th</sup> International Conference (CONIAPS XXV) on "Physical and Biological Sciences at Cross-roads: Interdisciplinary Explorations and Exciting Challenges" under the auspices of the International Academy of Physical Sciences (IAPS), organized by the Department of Chemistry, Guru Jambheshwar University of Science and Technology, Hisar, Haryana, India during Dec 29-31, 2019, on the topic "Physicochemical Study of Trimesyol-1,3,5-tridimethyl malonate Dendrimer

- To Develop Effective DDS".
- "Indian Analytical Congress (IAC-2019)" jointly organized by Indian Society of Analytical Scientists, Delhi Chapter & Federation of Indian Chambers of Commerce and Industry (FICCI) during Dec 12-14, 2019 at Amity University Noida (Delhi-NCR), on the topic "Analgesic Polyglycerol-opioid conjugates precluding central side effects in vivo".
- Indo-German Workshop on "Multivalent Macromolecular Architectures for Biomedical Applications" organized by the Department of Chemistry, University of Delhi during April 5-6th 2019 at University of Delhi, on the topic "Polyglycerol-opioid conjugates designed to inhibit pain and to preclude central side effects in vivo".
- Ist International Conference on "Integrative Chemistry, Biology and Translational Medicine (ICBTM-2019)" organized by Centre for Global Health, Hansraj College, University of Delhi, Delhi, India and Loyola University Chicago Stritch School of Medicine, USA during February 25-26, 2019 at University of Delhi, on the topic "Synthesis of Benzopyran-4-one and Isoxazole Based Hybrid Compounds and Evaluation of their Antiproliferative Activity".
- Global Congress on Biotechnology, Nanotechnology, Energy and Environment [GCBNE-2018], jointly organized by Department of Biotechnology, Deenbandhu Chhotu Ram University of Science and Technology, Murthal, Sonipat, Haryana-131039, India and MEDIMAA Conferences, April 25-26, 2018, on the topic "Benzopyran-4-one and Isoxazole Based Hybrid Compounds as Antiproliferative Agents"
- ➤ 2017 AAPS Annual Meeting and Exposition organized by AAPS community at the Convention Centre, San Diego, California, USA, on Nov 12-15, 2017, on the topic "Design, Synthesis and Evaluation of Antiproliferative Activities of Benzopyran-4-one Based Heterocyclic Compounds".
- BIOTIKOS 2016, National Symposium on Nanobiotechnology organized by Department of Biotechnology, TERI University, New Delhi, India during March 31-April 1, 2016, on the topic "Dendronized Multifunctional Amphiphilic Polymers as Efficient Nanocarriers for Biomedical Applications".
- International Conference on "Nascent Developments in Chemical Sciences: Opportunities for Academia-Industry Collaboration", organized by Department of Chemistry, Birla Institute of Technology and Science, Pilani, Rajasthan 333031, October 16-18, 2015, on the topic "Tolerogenic Modulation of the Immune Response by Oligoglycerol- and Polyglycerol-Peptide Conjugates".
- ➤ 16<sup>th</sup> Tetrahedron Symposium on "Challenges in Bioorganic & Organic Chemistry", organized by Elsevier Ltd. at Grand Hyatt Berlin, Germany, June 16-19, 2015, on the topic "Tolerogenic Modulation of the Immune Response by Oligoglycerol- and Polyglycerol-Peptide Conjugates".
- Indo-German Workshop on "New Perspectives for Nano-carriers in Biomedical Applications", organized by Department of Chemistry University of Delhi, Delhi, Jan 14, 2013, on the topic "Nonionic Dendronized Multiamphiphilic Polymers as Nanocarriers for Biomedical Applications".
- International Symposium of the Collaborative Research Centre (SFB) 765 "Multivalency in Chemistry and Biochemistry", organized by Free University Berlin, Germany during October 18-19, 2012, on the topic "Bio-catalytic Synthesis of Amphiphilic-Polymeric and Dendritic Architectures for Biomedical Applications".
- International Symposium on "Trends In Drug Discovery And Development", organized by Department of Chemistry, University of Delhi, January 5-8, 2010, on the topic "Chemoenzymatic Approach for the Synthesis of Valuable Triacylglycerol Based Dendritic Building Blocks" and "Biocatalytic Synthesis of PEG based conjugated polymer-dendrimer architectures for drug delivery applications".
- → 3<sup>rd</sup> Indo Italian Seminar on "Green Chemistry", organized by Department of Chemistry,
  University of Delhi and Embassy of Italy, December 9, 2009, on the topic "Chemo-Enzymatic
  Method for the Synthesis of Polymer-Dendrimer Conjugates".
- National Conference on Recent Advances In Chemical Sciences (Special emphasis on: Food and Drug research) organized by the P.G. Department of Chemistry, Government Dungar College,

- University of Bikaner, Bikaner during Oct 3-5, 2008 on the topic "Chemo-enzymatic Synthesis of PEG-Glycerol Based Amphiphilic Polymers".
- National Seminar on Green Chemistry And Natural Products, Department of Chemistry, University of Delhi, November 26-27, 2007 on the topic "Chemo-enzymatic synthesis of PEG-Glycerol Based Amphiphilic Polymers".

#### **ORAL PRESENTATION**

- > 2<sup>nd</sup> International Conference on "Advanced Developments in Chemistry and Allied Sciences-2023 (ADCAS-23)" organised by the Department of Chemistry, Deenbandhu Chhotu Ram University of Science and Technology, Murthal, Sonipat, India held during Jan 17 -18, 2023, on the topic "Exploring the Antiproliferative Activity of Benzopyran-4-one and Isoxazole-Based Fusion Compounds".
- > 1st International Conference on "Advanced Developments in Chemistry and Allied Sciences-2021 (ADCAS-21)" organised by the Department of Chemistry, Deenbandhu Chhotu Ram University of Science and Technology, Murthal, Sonipat, India held during 16 -17th December, 2021, on the topic "Synthesis and Evaluation of Antiproliferative Activity of Benzopyran-4-one Based Hybrid Compounds".
- Oral presentation at the 2<sup>nd</sup> Indo-German Workshop on "Supramolecular Chemistry" organized by the Department of Chemistry, University of Delhi, India on 30<sup>th</sup> March 2015 on the topic "Tolerogenic Modulation of the Immune Response by Oligo-glycerol- and Polyglycerol-Peptide Conjugates".
- > Oral presentation at the National Conference on "Advanced Scientific Developments in Chemical Sciences-2014" organized by Deenabandhu Chhotu Ram University of Science and Technology, Murthal (Sonipat), India on 14th March 2014 on the topic: "Non-ionic Dendronized Multiamphiphilic Polymers as Nanocarriers for Biomedical Applications".
- Oral presentation at the 9<sup>th</sup> International Symposium on Polymer Therapeutics: From Laboratory to Clinical Practice organized by Cento de Investigacio'n Principe Felipe Valencia, Spain during May 28-30, 2012 on the topic: "Biocatalytic Route to Dendrigraft Amphiphiles and their Supramolecular Self-assembly".

# **INVITED TALK**

- Invited as an Expert Speaker for an online info-session on "Journey of a Researcher from India to Germany-Session 2" organised by the India offices of the University of Cologne and Free University Berlin, Germany Alumni Association on 30th May 2024.
- Invited as a Panelist for Panel discussion on the topic: "Post Corona | Transformation in Higher Education" by DAAD funded Worldwide Alumni Celebration | New Delhi 2021 organized by Freie Universität Berlin at IGCC, New Delhi on 3<sup>rd</sup> Dec. 2021.
- Invited as a Resource person to motivate and mentor the students of Class 9<sup>th</sup> and 10<sup>th</sup> towards Science under the Haryana School Shiksha Pariyojna Parishad scheme "Monitoring and Mentoring by Higher Educational Institutions" by Govt. Sr. Sec. School, Village Kiwana, Block Samalkha (Panipat) and Govt. Sr. Sec. School, Namunda, Samalkha, Panipat on 25<sup>th</sup> Nov 2021.
- Invited as a Resource person for an online session in the Webinar on "Exploring Online Education: e-Teaching and e-Learning" organized by CDRJM, Butana on 19th June 2020.

# **SOCIAL LINKS**



Linkedin

www.linkedin.com/in/dr-shilpi-gupta



https://orcid.org/my-orcid?orcid=0000-0001-5084-4592

**Orchid** 



https://www.webofscience.com/wos/author/record/JGM-6768-2023

**Web of Sciences** 



**Google Scholar** 

http://scholar.google.com/citations?user=NHr8DfoAAAAJ&hl=en