



Faculty Details proforma for DU Web-site

Title	Professor	Diwan	S	Rawat	Photograph
Designation	Professor				
Address	Department of Chemistry, University of Delhi, Delhi-110007				
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Residence	Provost Lodge, Jubilee Hall, University of Delhi, Delhi-110007				
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Web-Page	http://www.du.ac.in/faculty_member_details.htm?id=1799 www.diwansrawat.webs.com				
Educational Qualifications					
Degree	Institution				Year
Ph.D.	Central Drug Research Institute, Lucknow, UP/Kumaun University, Nainital, UK				1998
M.Phil. / M.Tech.	NA				
PG	Kumaun University, Nainital, UK				1993 (First Position in the University)
UG	Kumaun University, Nainital, UK				1991
Any other qualification					
Career Profile					
<ul style="list-style-type: none"> • Professor, Department of Chemistry, University of Delhi, Delhi, 110007, India (March 2010-Till Date). • Associate Professor, Department of Chemistry, University of Delhi, Delhi, 110007, India (July 2006-March 2010). • Reader, Department of Chemistry, University of Delhi, Delhi, 110007, India (July 2003-July 2006). • Assistant Professor, Department of Medicinal Chemistry, National Institute of Pharmaceutical Education and Research (NIPER), Mohali, Punjab, India (Nov 2002-July 2003). • National Institute of Health (NIH) Postdoctoral Fellow, Department of Medicinal Chemistry and Molecular Pharmacology, Purdue University, West Lafayette, IN, USA (Sept 2001-Nov 2002). • American Cancer Society (ACS) Postdoctoral Fellow, Department of Chemistry, Indiana University, Bloomington, IN, USA, (Nov 1999-Sept 2001). • Scientist, R & D Department, Lupin Laboratories Ltd. Mandideep, M.P., India (Sept 1998-Nov 1999). Involved in the process and development of Lisinopril, quinalapril based antihypertensive drugs, and handled reaction on 50 kg scale. 					

- R & D Executive, **Panchsheel Org. Ltd. MP, India.** (Aug 1997-Sept 1998). Process and development of Loperamide hydrochloride, promethazine hydrochloride, and triclosan. Handled reaction on 50 kg scale.
- Research Fellow, **Central Drug Research Institute, Lucknow, India,** (April 1994-Aug 1997).

Administrative Assignments

- **Coordinator, M. Tech.** (Chemical Synthesis and Process Technologies), Department of Chemistry, University of Delhi (**December 2010 – June 2016**).
- **Provost, Jubilee Hall,** University of Delhi, Delhi (**May 2012 – Till Date**).
- **OSD, University Press, and Head, Graphic Art Centre,** University of Delhi, Delhi (**January 2011 – May 2017**).
- **Chairman, Governing Body,** Shaheed Rajguru College, University of Delhi, Delhi (**2011-2012**).
- **Treasurer, Governing Body,** Swami Shraddhanand College, University of Delhi, Delhi (**2011-2012**).
- **Treasurer, Delhi University Students Union (DUSU),** University of Delhi, Delhi (**2012-May 2017**).
- **Warden, Jubilee Hall,** University of Delhi (**September 2003 – May 2012**).

Areas of Interest / Specialization

Organic Synthesis, Medicinal Chemistry (synthesis of biologically active compounds: anticancer, antiviral, antibacterial, antifungal, and antimalarial), Natural and Marine Natural Products (bioactivity guided isolation of natural/marine natural products). Process development of drugs/drug intermediates.

Subjects Taught

- **MSc (University of Delhi, 2003 onwards)**
 1. Paper 102A: Organic Stereochemistry
 2. Paper 102B; Study of reactive intermediates
 3. Paper 202A: Spectroscopy
 4. Paper 202B: Methods in Organic Synthesis
 5. Paper 3201B: Heterocyclic Chemistry
 6. Paper 4203A: Terpenes and Stereoids
 7. Paper 4203B: Alkaloids and Polyphenols
- **M.Tech-CSPT (University of Delhi)**
 1. Paper 102B: Name Reaction in Organic Synthesis
 2. Paper 201A: Reagents in Organic Synthesis
 3. Paper 201B: Newer Synthetic Reactions and Methodologies
- **M. Pharm (NIPER Mohali, 2002-2003)**
 1. Metals in organic synthesis
- **PhD (University of Delhi, 2003 onwards)**
 1. Unit-XXV: Medicinal Chemistry
 2. Unit XXXVI: Spectroscopy: Applications for Organic Chemist

Research Guidance

1. *Supervision of awarded Doctoral Thesis*

1. **Dr. Mukesh C. Joshi**, *Title of thesis: "Synthesis and Biological Evaluation of Cyclic and Acyclic Eneidyne"* Degree awarded: **2008**.
2. **Dr. Gopal S. Bisht**, *Title of thesis: Designing, synthesis and characterization of antimicrobial peptides and study of their biological activity.* Degree awarded: **2008**.
3. **Dr. Penny Josh**, *Title of thesis: Synthesis of Phidolopin and Cyanuric Acid Analogues as Biodyanmic Agents.* Degree awarded: **2008**
4. **Dr. Ritu Mangain**, *Title of thesis: Synthesis and antimicrobial activity evaluation of substituted coumarins and coumarin-triazole conjugates.* Degree awarded: **2009**.
5. **Dr. Himanshu Aethaya**, *Title of thesis: Design, synthesis and characterization of modified tetraoxanes and tetraoxane-aminoquinolines as antimalarial agents,* Degree awarded: **2009**.
6. **Dr. Mukul Sharma**, *Title of thesis: Synthesis and characterization of biologically relevant natural product analogues and nitrogen heterocycles,* Degree awarded: **2010**.
7. **Dr. Nitin Kumar**, *Title of thesis: Synthesis and biological evaluation of tetraoxane and curcumin analogues,* Degree awarded: **2011**.
8. **Dr. Beena Negi**, *Title of thesis: Synthesis and Biological Activity Evaluation of Cyclohexane-1,2-diamine, Metronidazole, Curcumin and Thymol Derivatives,* Degree awarded: **2012**.
9. **Dr. Sunny Manohar**: *Title of thesis: Design, Synthesis and Biological Activity Evaluation of hybrid molecules based on 4-Aminoquinoline, Curcumin, Chalcon and Cyclohexyldiamine,* Degree awarded: **2013**.
10. **Dr. Seema Joshi**: *Title of thesis: Antimicrobial Peptides and peptidomimetics: Design, synthesis and Biological evaluation,* Degree awarded: **2013**.
11. **Dr. Rini Joshi**: *Title of thesis: Studies on protein acetyltransferase function of calreticulin,* Degree awarded: **2013**.
12. **Dr. Deepak Kumar**, *Title of thesis: A Library of aryls, alkyl aryls and heteroaryls as biodynamic agents.* Degree awarded: **2014**.
13. **Dr Anuj Thakur**, *Title of thesis: Design, facile synthesis and development of novel molecular hybrids as therapeutic agents.* Degree awarded: **2016**
14. **Dr U. Chinna Rajesh**, *Title of thesis: Design and Development of Nanocatalysts for Green and sustainable synthesis of Biologically active heterocycles.* Degree awarded: **2016**
15. **V Satya Pavan**, *Title of thesis: Facile and green synthesis of Biologically relevant heterocycles.* **2017**.
16. **Mohit Tripathi**, *Title of thesis: Rational Strategies for Facile synthesis of medicinally relevant and molecules and their Biological activity evaluation.* **2017**.
17. **P. Linga Reddy**, *Title of Thesis: Design and application of nanomaterials for organic transformations and synthesis of medicinal hybrids.* **2017**.
18. **Rohit Kholiya**, *Title of Thesis: Design and application of nanomaterials for organic transformations and synthesis of medicinal hybrids.* **2018 (Thesis submitted)**.

2. *Supervision of Doctoral Thesis, under progress*

- **Registered PhD students:** Shamseer K. Kandi, Shiv Shyam Maurya; Aparna Bahuguna, Upasana Gulati, Gunjan Purohit, Srishti Rawat, Manish Rawat, Gagandeep Sandhu

3. *Supervision of awarded M. Phil, M. Tech, M. Pharm and M.Sc. dissertations*

- Nisha Agarwal (M. Phil); Sunny Manohar (M.Phil); Monika (M. Pharm); Shamsheer K. Kandi (M.Tech); Divya (M.Sc.)

Publications Profile

Books/Monographs (Authored/Edited)

- **Bioactive Marine Natural Products:** Dewan S. Bhakuni and **Diwan S. Rawat**, ISBN: 1-4020-3472-5 (2005), Publishers: Springer, New York, USA, and Anamaya Publisher, New Delhi, India.
- Book was forwarded by **Sir Derek Barton**, Noble Laureate.
- Book was reviewed by *Journal of American Chemical Society*, and comments were published in *J. Am. Chem. Soc.* 128, 4494 (2006).
- Book chapter entitled “**Organometallic and Organosulphur Compounds**” e-book on “Organic Chemistry” published by **National Science Digital Library**, [<http://nsdl.niscair.res.in/dspace/handle/123456789/179/items-by-author?author=Rawat%2C+Diwan+S>], 2008.
- Book chapter entitled “**Synthetic and Clinical Status of Marine Derived Anticancer Peptides**” in a book series Compendium of Bioactive Natural Products, Volume 7, Chapter 1, **M/S. Studium Press LLC , USA; Authros: Diwan S.Rawat,* Ram Singh, Nitin Kumar, Mukul Sharma, and M. S. M. Rawat P. 1-28 (2010).**
- **Science and Life:** Foundation Course under FYUP, University of Delhi (Co-Author, 2013).
- Book chapter entitled “Marine Natural Alkaloids as Anti-Cancer Agents” on **Opportunity, Challenge and Scope of Natural Products in Medicinal Chemistry’** Authors: Deepak Kumar, and **Diwan S Rawat***, PP 213-268 (2011); ISBN: 978-81-308-0448-4 (<http://www.trnres.com/ebookcontents.php?id=95>).
- Reviewed a book entitled “**Natural Products Chemistry**” to be published by Elsevier (**June 2007**).
- Reviewed a book entitled “**Organic Reaction Mechanism**” to be published by Macmillan India Ltd (**June 2008**).
- **Edited** especial issues of Anti-Cancer Agents in Medicinal Chemistry (*Published by Bentham*).

Research papers published in Refereed/Peer Reviewed Journals

PUBLICATIONS:

2018

1. Negi B, Poonan P, Ansari MF, Kumar D, Aggarwal S, Singh R, Azam A, **Rawat DS*** 2018, Synthesis, antiameobic activity and docking studies of metronidazole-triazole-styryl hybrids. **Eur. J. Med. Chem.** 150, 633 – 641.
2. Gulati U, Rajesh UC, **Rawat DS*** 2018, RGO@CuO nanocomposites: A sustainable approach for decarboxylative C(sp³)-H activation of proline for the synthesis of α -alkynylated N-substituted pyrrolidines. **ACS Sustainable Chem. Eng. (Under revision)**
3. Rawat M, **Rawat DS*** 2018, Copper oxide nanoparticle catalysed synthesis of imidazo[1,2-a]pyrimidine derivatives, their optical properties and selective fluorescent sensor towards zinc ions. **Tetrahedron Lett.** 59, 2341 – 2346. (**Highlighted in the Cover Page**)

2017

4. Purohit G, Rajesh UC, **Rawat DS*** 2017, Hierarchically porous sphere-like copper oxide (HS-CuO) nanocatalyzed synthesis of benzofuran isomers with anomalous selectivity and their ideal green chemistry metrics. **ACS Sustainable Chem. Eng.** **5**, 6466 – 6477.
 5. Tripathi M, Khan SI, Ponnann P, Kholiya R, **Rawat DS*** 2017, Aminoquinoline-pyrimidine-modified anilines: Synthesis, *in vitro* antiplasmodial activity, cytotoxicity, mechanistic studies and ADME predictions, **ChemSelect**, **2**, 9074 – 9084 (2017).
 6. Gulati U, Rajesh UC, Bunekar N, **Rawat DS*** 2017, Decarboxylative coupling strategy to afford N-heterocycles driven by silica nanosphere embedded copper oxide (Cu@SiO₂-NS). **ACS Sustainable Chem. Eng.** **5**, 4672 – 4682.
 7. Reddy PL, Tripathi M, Arundhathi R, **Rawat DS*** 2017, Chemoselective hydrazine-mediated transfer hydrogenation of nitroarenes by Co₃O₄ nanoparticles immobilized on a Al/Si-mixed oxide support, **Chemistry - An Asian Journal**, **12**, 785 – 791.
 8. Gulati U, Rawat S, Rajesh U, **Rawat DS*** 2017, CuO@Fe₂O₃ catalyzed C1-alkynylation of tetrahydroisoquinolines (THIQs) *via* A3 coupling and its decarboxylative strategies, **New J. Chem.** **41**, 8341-8346.
 9. Gupta A, Kholiya R, **Rawat DS*** 2017, Lewis acid mediated tetrahydrofuran synthesis *via* [3+2] cycloaddition reaction of 2-arylcyclopropyl ketones with aldehydes, **Asian J. Org. Chem.** **6**, 993 – 997.
 10. Reddy PL, Arundhathi R, Tripathi M, Chauhan P, Yan N, **Rawat DS*** 2017, Solvent free oxidative synthesis of 2-substituted benzimidazoles by immobilized cobalt oxide nanoparticles on alumina/silica support, **ChemSelect**, **2**, 3889 – 3895.
 11. Reddy PL, Khan SI, Ponnann P, Tripathi M, **Rawat DS*** 2017, Design, synthesis and evaluation of 4-aminoquinoline-purine hybrids as potential antiplasmodial agents; **Eur. J. Med. Chem.** **126**, 675-686.
 12. Negi B, Kumar D, **Rawat DS*** 2017, Marine peptides as anticancer agents: A remedy to mankind by nature, **Curr. Protein Pept. Sci.** **18**, 885-904.
 13. Kholiya R, Khan SI, Bahuguna A, Tripathi M, **Rawat DS*** 2017, N-Piperonyl substitution on aminoquinoline-pyrimidine hybrids: Effect on the antiplasmodial potency; **Eur. J. Med. Chem.** **131**, 126 – 140.
 14. Maurya SS, Khan SI, Kumar D, Bahuguna A, **Rawat DS*** 2017, Synthesis, antimalarial activity, heme binding and docking studies of *N*-substituted 4-aminoquinoline-pyrimidine molecular hybrids; **Eur. J. Med. Chem.** **129**, 175 – 185.
- 2016**
15. Rajesh UC, Gulati U, **Rawat DS*** 2016, Cu(II)-Hydromagnesite catalyzed synthesis of tetrasubstituted propargylamines and pyrrolo[1,2-*a*]quinolines *via* KA2, A3 couplings and their decarboxylative versions, **ACS Sustainable Chem. Eng.** **4**, 3409 – 3419.
 16. Reddy PL, Arundhathi R, Tripathi M, **Rawat DS*** 2016, CuI nanoparticles mediated expeditious synthesis of 2-substituted benzimidazoles using molecular oxygen as oxidant, **RSC Adv**, **6**, 53596 - 53601.
 17. Rajesh UC, Pavan VS, **Rawat DS*** 2016, Copper supported hematite NPs as magnetically recoverable nanocatalysts for one-pot synthesis of aminoindolizines and pyrrolo[1,2-*a*]quinolines, **RSC Adv**, **6**, 2935 – 2943. **Highlighted in SYNFACTS 02016, 12(4), 0427.**
 18. Negi B, Kumar D, Kumbukgolla W, Jayaweera S, Ponnann P, Singh R, Agarwal S, **Rawat DS*** 2016, Anti-methicillin resistant *Staphylococcus aureus* activity, synergism with oxacillin and molecular docking studies of metronidazole-triazole hybrids, **Eur. J. Med. Chem.** **115**, 426 – 437.
 19. Anthwal A, Singh K, Rawat M.S.M., Tyagi AK, Haque A, Ali I, **Rawat DS*** 2016, Synthesis of 4-

piperidone based curcuminoids with anti-inflammatory and anti-proliferation potential in human cancer cell lines, **Anti Cancer Agents Med Chem**, **16**, 841-851.

2015

20. Rajesh UC, Pavan VS, **Rawat DS*** 2015, Hydromagnesite rectangular thin sheets as efficient heterogeneous catalysts for the synthesis of novel 3-substituted indoles *via* Yonemitsu-type condensation in water, **ACS Sustainable Chem. Eng.** 3, 1536 – 1543.
21. Reddy PL, Arundhathi R, **Rawat DS*** 2015, Cu(0)@Al₂O₃/SiO₂ NPs: Efficient Reusable Catalyst for the Cross Coupling Reactions of Aryl Chlorides with Amines and Anilines, **RSC Adv**, 5, 92121-92127. **Highlighted in SYNFACTS 2016, 12(2), 0214.**
22. Negi B, Kumar D, **Rawat DS*** 2015,, Marine peptides as anticancer agents: A remedy to mankind by nature, **Curr. Protein Pept. Sci. Accepted.**
23. **Joshi S, Dewangan RP, Yar MS, Rawat DS, Pasha S.** 2015, N-Terminal aromatic tag induced self assembly of tryptophan-arginine rich ultra short sequences and their potent antibacterial activity, **RSC Adv**, 5, 68610 – 68620.
24. Thakur A, Reddy PL, Tripathi M, **Rawat DS*** 2015, Facile construction of 3-indolochromenes and 3-indoloxanthenes via EDDF catalyzed one-pot three component reactions. **New J. Chem.** 39, 6253 – 6260.
25. Rajesh UC, Purohit G, **Rawat DS*** 2015 Facile one-pot synthesis of N-heterocycles using CuI/CSP composites as efficient recyclable nanocatalysts with anomalous selectivity under green conditions, **ACS Sustainable Chem. Eng.** 3, 2397 – 2404.
26. Kumar D, Negi B, **Rawat DS*** 2015 The Current Anti-TB Agents and the Challenges Ahead. **Fut. Med. Chem.** 7, 1981 – 2003, **Invited article.**
27. Manohar S, Pavan VS, Taylor D, Kumar D, Ponnann P, Wiesner L, **Rawat DS*** 2015, Highly active 4-aminoquinoline-pyrimidine based molecular hybrids as potential next generation antimalarial agents, **RSC Adv** 5, 28171 – 28186.
28. Joshi P, **Rawat DS*** 2015, Synthesis and characterization of theophylline-triazole and theophylline-triazole-coumarin based molecular hybrids, **Ind. J. Het. Chem.** 24, 411 – 418. **Invited article.**
29. Manohar S, Thakur A, Bhatia R, Walia S, Ponnann P, **Rawat DS*** 2015, Antibacterial and Antioxidant Activity Evaluation of Novel Symmetrical and Unsymmetrical C5-Curcuminoids, **Ind J. Chem Sec B**, 54B, 1235 – 1246.
30. Tripathi M, Khan SI, Thakur A, Ponnann P, **Rawat DS*** 2015, 4-Aminoquinoline-pyrimidine-aminoalkanol: Synthesis, *in vitro* antimalarial activity, docking studies and ADME predictions, **New J. Chem.** 39, 3474 – 4383.
31. Rajesh UC, Kholiya R, Thakur A, **Rawat DS*** 2015, [TBA][Gly] ionic liquid promoted multi-component synthesis of 3-substituted indoles and indolyl-4*H*-chromenes” **Tetrahedron Lett.** 56, 1790 - 1793.
32. Kumar D, Khare G, Beena, Kidwai S, Tyagi AK, Singh R, **Rawat DS*** 2015, Novel isoniazid-amidoether derivatives: Synthesis, characterization and antimycobacterial activity evaluation, **Med. Chem. Commun.** 6, 131 - 137.
33. Rajesh UC, Wang J, Prescott S, Tsuzuki T, **Rawat DS*** 2015, RGO/ZnO nanocomposite: An efficient sustainable heterogeneous amphiphilic catalyst for the synthesis of 3-substituted indoles in water. **ACS Sustainable Chem. Eng.** 3, 9 – 18 **[Highlighted in the Cover Page].**
34. Kandi SK, Manohar S, Vélez Gerena CE, Zayas B, Malhotra SV, **Rawat DS*** 2015; C5-curcuminoid-4-aminoquinoline based molecular hybrids: Design, synthesis and mechanistic investigation of anticancer activity, **New J. Chem.** 39, 224 - 234 (2015).
35. Kumar D, Khan SI, Poonann P, **Rawat DS*** 2015 “4-Aminoquinoline-pyrimidine hybrids: Synthesis, antimalarial activity, heme binding and docking studies” **Eur. J. Med Chem.** 89,

490 - 502.

36. Raj KK, Manohar S., Talluri VR , **Rawat DS*** 2015 Insights into activity enhancement of 4-aminoquinoline based hybrids using atom-based and field-based QSAR Studies, **Med. Chem. Res.** 24, 1136- 1154.
37. Joshi R., Rohil V., Arora S., **Rawat DS.**, Raj H. G. et al, 2015, The competence of 7, 8-diacetoxy-4-methylcoumarin and other polyphenolic acetates in mitigating the oxidative stress and their role in angiogenesis, **Curr. Topics Med. Chem.** 15, 179 - 186.

2014

38. Kumar, D.; Khan, S. I.; Ponnann, P.; **Rawat, D. S.***, 2014, Triazine-pyrimidine based molecular hybrids: Synthesis, docking studies and antimalarial activity evaluation, **New J. Chem.** 38, 5087-5095.
39. Kumar,D.; Khan, S. I; Ponnann, P.; **Rawat, D. S.***, 2014, Synthesis, antimalarial activity, heme binding and docking studies of 4-aminoquinoline-pyrimidine based molecular hybrids, **RSC Adv** 4, 63655 - 63669.
40. Rajesh, U. C.; Divya; **Rawat, D. S.***, 2014, Functionalized superparamagnetic Fe₃O₄ as an efficient quasi-homogeneous catalyst for multi-component reactions, **RSC Adv** 4, 41323-41330.
41. Kumar, D.; Beena; Khare, G.; Kidwai, S.; Tyagi, A. K.; Singh, R.; **Rawat, D.S.*** 2014, Synthesis of novel 1,2,3-triazole derivatives of isoniazid and their *in vitro* and *in vivo* antimycobacterial activity evaluation, **Eur. J. Med Chem.** 81, 301 - 313.
42. Beena; Raj, K. K.; Siddiqui, S. M.; Ramachandran, D.; Azam, A.; **Diwan S. Rawat, D. S.***, 2014, Metronidazole-Triazole Hybrids as *Entamoeba histolytica* Thioredoxin Reductase Inhibitors and their *In Vitro* Antiamoebic Activity Evaluation. **Chem. Med. Chem.** 9, 2439 - 2444.
43. Manohar, S.; Tripathi, M.; **Rawat, D. S.***, 2014, 4-Aminoquinoline based molecular hybrids as antimalarials: An Overview, **Curr. Top. Med. Chem.** 14, 1706 - 1733.
44. Anthwal, A.; Singh, K.; Rawat, M. S. M.; Tyagi, A. K.; Aggarwal, B. B.; **Rawat, D. S.***, 2014, C5-curcuminoid-dithiocarbamate based molecular hybrids: Synthesis, anti-inflammatory and anti-cancer activity evaluation. **RSC Adv** 4, 28756 - 28764.
45. Anthwal, A.; Rajesh, U. C.; Rawat, M. S. M.; Kushwaha, B.; Maikhuri, J. P.; Sharma, V. L.; Gupta, G.; **Rawat, D. S.***, 2014, Novel metronidazole-chalcone conjugates with potential to counter drug resistance in *Trichomonas vaginalis*, **Eur. J. Med. Chem.** 79, 89 - 94.
46. Anthwal, A.; Thakur, B.; Rawat, M. S. M.; **Rawat, D. S.**; Tyagi, A. K.; Bharat B. Aggarwal, B. B. 2014, Synthesis, characterization and *in vitro* anticancer activity of C-5 curcumin analogues with potential to inhibit TNF- α -induced NF- κ B activation, **Biomed. Res. Int. Article ID 524161**, <http://dx.doi.org/10.1155/2014/524161>.
47. Thakur, A.; Manohar, S.; Vélez Gerena, C. E.; Zayas, B.; Kumar, V.; Sanjay V. Malhotra, S. V.; **Rawat, D. S.***, 2014, Novel 3,5-bis(arylidene)-4-piperidone based monocarbonylanalogs of curcumin: Anticancer activity evaluation and mode of action study, **Med. Chem. Commun.** 5, 576 - 586.
48. Anuj Thakur, Shabana I. Khan, **Diwan S. Rawat***, 2014, Synthesis of piperazine tethered 4-aminoquinoline-pyrimidine hybrids as potent antimalarial agents. **RSC Adv.** 4, 20729 - 20736.
49. Rajesh, U. C.; Kholiya, R.; Pavan, V. S.; **Rawat, D.S.***, 2014, Catalyst free, ethylene glycol promoted one-pot three component synthesis of 3-amino alkylated indoles *via* Mannich-type reaction, **Tetrahedron Letters**, 55, 2977 - 2981.
50. Tripathi, M.; Reddy, P. L.; **Rawat, D. S.***, 2014, Noscaphine and its analogues as anti-cancer

- agents, **Chem Biol Interface** 4, 1 – 22.
51. Mamgain, R.; Atheaya, H.; Khan, S. I.; Manohar, S.; **Rawat, D. S.***, 2014, Synthesis of novel 1,2,3-triazole incorporated quinoline derivatives *via* click chemistry and evaluation of their antimalarial activity, **J. Ind. Chem Soc.** 91, 1443 - 1450, (*Invited article for Professor K. C. Joshi Birthday Commemoration Issue*).
 52. Beena; Kumar, D.; Kumbukgolla, W.; Jayaweera, S.; Bailey, M.; Alling, T.; Ollinger, J.; Parish, T.; **Rawat, D. S.***, 2014, Antibacterial activity of adamantyl substituted cyclohexane diamine derivatives against methicillin resistant *Staphylococcus aureus* and *Mycobacterium tuberculosis*, **RSC Adv.** 4, 11962 - 11966.
 53. Rajesh, U. C.; Gupta, A.; **Rawat, D. S.***, 2014, Approaches to the total synthesis of natural quinolizidine alkaloid (+)-epiquinamide and its isomers: An overview, **Curr. Org. Synth.** 11, 627 – 646.
 54. Manohar, S.; Thakur, A.; Khan, S. I.; Ni, N.; Wang, B.; **Rawat, D. S.***, 2014, Synthesis of unsymmetrical C5-curcuminoids as potential anticancer and antimalarial agents. **Lett. Drug Des. Discov.** 11, 138 - 149.
 55. Kumar, D.; Raj, K. K.; Malhotra, S. V.; **Rawat, D. S.***, 2014, Synthesis and anticancer activity evaluation of resveratrol-chalcone conjugate. **Med. Chem. Commun.** 5, 528 - 535.
 56. Manohar, S.; Pepe, A. Vélez Gerena, C. E.; Zayas, B.; Malhotra, S. V.; **Rawat, D.S.***, 2014, Anticancer activity of 4-aminoquinoline-triazine based molecular hybrids, **RSC Adv.** 4, 7062 - 7067.
 57. Beena, Kumar, D.; Bailey, M. A.; Parish, T.; **Rawat, D.S.***, 2014, Synthesis and antituberculosis activity evaluation of cyclohexane-1,2-diamine derivatives, **Chem Biol Interface**, 4, 23-36.
 58. Joshi, P.; Tripathi, M.; **Rawat, D. S.***, 2014, Synthesis and characterization of novel 1,2,3-triazole-linked theophylline and coumarin s-triazines. **Ind. J. Chem.** 53B, 311 - 318.
 59. Arya, K.; Tomar, R.; **Rawat, D.S.***, 2014, Greener synthesis and photo-antiproliferative activity of novel fluorinated benzothiazolo[2, 3-b]quinazolines. **Med. Chem. Res.** 23, 896 - 904 (2014).

2013

60. Rajesh, U. C.; Manohar, S.; **Rawat, D. S.***, 2013, Hydromagnesite as an efficient novel recyclable heterogeneous solid base catalyst for the synthesis of flavanones, flavanols and 1,4-dihydropyridines in water. **Adv. Synth. Catal.** 355, 3170–3178.
61. **Rawat, D. S.***, Singh, R.; 2013, Plant derived secondary metabolites as anti-cancer agents. **Anti-Cancer Agents-Med. Chem.** 13, 1551.
62. Thakur, A.; Tripathi, M.; Rajesh, U. C.; **Rawat, D. S.***, 2013, Ethylenediammonium-diformate (EDDF) in PEG₆₀₀: An efficient ambiphilic novel catalytic system for the one-pot synthesis of 4H-pyrans *via* Knoevenagel condensation. **RSC Adv.** 3, 18142 – 18148.
63. Kumar, N.; Kapoor, E.; Singh, R.; Kidwai, S.; Kumbukgolla, W.; Bhagat, S.; **Rawat, D. S.***, 2013, Synthesis and antibacterial/antitubercular activity evaluation of symmetrical *trans*-cyclohexane-1,4-diamine derivatives. **Ind. J. Chem. Sect B.** 52, 1441 – 1450.
64. Joshi, R.; Kumar, A.; Manral, S.; Sinha, R.; Arora, S.; Goel, S.; Kalra, N.; Chatterji, S.; Dwarakanath, B. S.; **Rawat, D. S.**; Saluja, D.; Parmar, V. S.; Prasad, A. K.; Raj, H. G.; 2013, Calreticulin transacetylase mediated upregulation of thioredoxin by 7,8-diacetoxy-4-methylcoumarin enhances the antioxidant potential and the expression of vascular endothelial growth factor in peripheral blood mono nuclear cells, **Chemico-Biological Interactions**, 206, 327–336.
65. Manohar, S.; Khan, S. I.; Kandi, S. K.; Raj, K. K.; Sun, G.; Yang, X.; Molina, A. D. C.; Ni, N.; Wang,

- B.; **Rawat, D. S.***, 2013, Synthesis and cytotoxic potential of new monocarbonyl analogues of Curcumin. **Bioorg. Med. Chem. Lett.** 23, 112-116.
66. Sharma, M.; Rajesh, U. C. **Rawat, D. S.***, 2013, Improved synthesis of natural ester Sintonin and its analogues *via* Wittig reaction. **J. Ind. Chem. Soc.** 90, 1853–1860.
67. Beena, **Rawat, D. S.***, 2013, “Antituberculosis drug research: A critical overview” **Med. Res. Rev.** 33, 693–764 (**ranked #1 among the medicinal chemistry journals**).
68. Kumar, N.; Sun, G.; Ni, N.; Chen, W.; Molina, A. D. C.; Wang, B.; **Rawat, D. S.***, 2013, “Synthesis and cytotoxicity evaluation of C5-curcuminoids” **Chem. Biol. Interface**, 3, 164-186.
69. Manohar, S.; Khan, S. I.; **Rawat, D. S.***, 2013, 4-Aminoquinoline-triazine based hybrids with improved *in-vitro* antimalarial activity against CQ-sensitive and CQ-resistant strains of *P. falciparum*. **Chem. Biol. Drug Des.** 81, 625-630.
70. Beena, Kumar, D.; **Rawat, D. S.***, 2013, Synthesis and antioxidant activity of thymol and carvacrol based Schiff bases, **Bioorg. Med. Chem. Lett.** 23, 641-645.
71. Kumar, D.; Raj, K. K.; Bailey, M. A.; Alling, T.; Parish, T.; **Rawat, D. S.***, 2013, Antimycobacterial activity evaluation and time-kill kinetic and 3D QSAR study of C-(3-aminomethyl-cyclohexyl)-methylamine derivatives, **Bioorg. Med. Chem. Lett.** 23, 1365-1369.

2012

72. Manohar, S.; Rajesh, U. C.; Khan, S. I.; Babu, L. T.; **Rawat, D. S.*** 2012. Novel 4-aminoquinoline-pyrimidine based hybrids with improved *in vitro* and *in vivo* antimalarial activity. **ACS Med. Chem. Lett.** 3, 555-559.
73. Arya, K.; Rajesh, U. C.; **Rawat, D. S.*** 2012. Proline confined FAU zeolite: Hybrid heterogeneous catalyst for one pot synthesis of spiroheterocycles via mannich type reaction. **Green Chem.** 14, 3344-3351.
74. Joshi, S.; Bisht, G. S.; **Rawat, D. S.**; Maiti, S.; Pasha, S. 2012. Comparative mode of action of novel hybrid peptide CS-1a and its rearranged amphipathic analog CS-2a. **FEBS Journal.** 279, 3776 – 3790.
75. Joshi, S.; Dewangan, R. P.; Yadav, S.; **Rawat, D. S.**; Pasha, S. 2012. Synthesis, antibacterial activity and mode of action of novel linoleic acid-dipeptide-spermidine conjugates. **Org. Biomol. Chem.** 10, 8326-8335.
76. Beena.; Joshi, S.; Kumar, N.; Kidwai, S.; Sing, R.; **Rawat, D. S.*** 2012. Synthesis and antitubercular activity evaluation of novel unsymmetrical cyclohexane-1,2-diamine derivatives. **Arch. Pharm. Chem. Life Sci.** 345, 896-901.
77. Arya, K.; **Rawat, D. S.**; Dandia, A.; Sasai, S. 2012. Zeolite supported Bronsted-acid ionic liquids: an eco approach for synthesis of spiro[indole-pyrido[3,2-e]thiazine] in water under ultrasonication. **Green Chem.** 14, 1956-1963.
78. Arya, K.; **Rawat, D. S.**; Dandia, A.; Sasai, H. 2012. Brønsted acidic ionic liquids: green, efficient and reusable catalyst for synthesis of fluorinated spiro [indole- thiazinones / thiazolidinones] as antihistaminic agents. **J. Fluorine Chem.** 137, 117-122.
79. Kumar, N.; Singh, R.; **Rawat, D. S.*** 2012. Tetraoxanes: Synthetic and medicinal chemistry perspective. **Med. Res. Rev.** 32, 581-610.
80. Kumar, N.; Khan, S. I.; **Rawat, D. S.*** 2012. Synthesis and antimalarial activity evaluation of tetraoxane-triazine hybrids and spiro[piperidine-4,3'-tetraoxanes]. **Helv. Chim. Acta** 95, 1181-1197.
81. Sharma, M.; Manohar, S.; **Rawat, D. S.*** 2012. Lewis acid catalyzed synthesis of 1-aryl-1,2-dihydro-naphtho[1,2-e][1,3]oxazin-3-ones under solvent free conditions: A mechanistic approach. **J. Heterocyclic Chem.** 49, 589-595.

82. Joshi, M. C.; **Rawat, D. S.**; 2012. Recent development in enediyne chemistry. **Chemistry and Biodiversity** **9**, 459-498.

2011

83. Kumar, D.; Rohilla, R. K.; Roy, N.; **Rawat, D. S.*** 2011. Synthesis and antibacterial activity evaluation of unsymmetrically substituted cyclohexane-1,2-diamine derivatives. **Chem. Biol. Interface.** **1**, 263-278.
84. Kumar, N.; Khan, S. I.; Atheaya, H.; Mamgain, R.; **Rawat, D. S.*** 2011. Synthesis and *in vitro* antimalarial activity of tetraoxane-amine/amide conjugates. **Eur. J. Med. Chem.** **46**, 2816-2827.
85. Kumar, N.; Sharma, M.; **Rawat, D. S.*** 2011. Medicinal chemistry prospective of trioxanes and tetraoxanes. **Curr. Med. Chem.** **18**, 3889-3928.
86. Manohar, S.; Khan, S. I.; **Rawat, D. S.*** 2011. Synthesis of 4-aminoquinoline-1,2,3-triazole and 4-aminoquinoline-1,2,3-triazole-1,3,5-triazine hybrids as potential antimalarial agents. **Chem. Biol. Drug Des.** **78**, 124-136.
87. Sharma, M.; Joshi, M. C.; Kumar, V.; Malhotra, S. V.; **Rawat, D. S.*** 2011. Synthesis and anticancer activity of 13-membered cyclic enediynes. **Arch. Pharm. Chem. Life Sci.** **344**, 564-571.
88. Sharma, M.; Joshi, P.; Kumar, N.; Joshi, S.; Rohilla, R. K.; Roy, N.; **Rawat, D. S.*** 2011. Synthesis, antimicrobial activity and structure activity relationship study of *N,N*-dibenzyl-cyclohexane-1,2-diamine derivatives. **Eur. J. Med. Chem.** **46**, 480-487.

2010

89. Joshi, S.; Bisht, G. S.; **Rawat, D. S.**; Kumar, A.; Kumar, R.; Maiti, S.; Pasha, S. 2010. Interaction studies of novel cell selective antimicrobial peptides with model membranes and *E. coli* ATCC11775. **BBA-Biomembranes** **1798**, 1864-1875.
90. Kumar, D.; Joshi, S.; Rohilla, R. K.; Roy, N.; **Rawat, D. S.*** 2010. Synthesis and antibacterial activity of benzyl-[3 (benzylamino-methyl)-cyclohexylmethyl]-amine derivatives. **Bioorg. Med. Chem. Lett.** **20**, 893-895.
91. Manohar, S.; Khan, S. I.; **Rawat, D. S.*** 2010. Synthesis and antimalarial activity and cytotoxicity of 4-aminoquinoline-triazine conjugates. **Bioorg. Med. Chem. Lett.** **20**, 322-325.

2009

92. Kumar, N.; Khan, S. I.; Beena, Rajalakshmi, G.; Kumaradhas, P.; **Rawat, D. S.*** 2009. Synthesis, antimalarial activity and cytotoxicity of substituted 3,6-diphenyl-[1,2,4,5]tetraoxanes. **Bioorg. Med. Chem.** **17**: 5632-5638.
93. Kumar, N.; Khan, S. I.; Sharma, M.; Aethaya, H.; **Rawat, D. S.*** 2009. Iodine-catalyzed one-pot synthesis and antimalarial activity evaluation of symmetrically and asymmetrically substituted 3,6-diphenyl [1,2,4,5]tetraoxanes. **Bioorg. Med. Chem. Lett.** **19**: 1675-1677.
94. Agarwal, N.; Kumar, R.; Dureja, P.; **Rawat, D. S.*** 2009. Schiff's bases as potential fungicides and nitrification inhibitors. **J. Agric. Food Chem.** **57**: 8520-8525.
95. Beena, Kumar, N.; Rohila, R. K.; Roy, N.; **Rawat, D. S.*** 2009. Synthesis and antibacterial activity evaluation of metronidazole-triazole conjugates. **Bioorg. Med. Chem. Lett.** **19**: 1396-1398.
96. Mamgain, R.; Singh, R.; **Rawat, D. S.*** 2009. DBU-catalyzed three-component one pot

synthesis of highly functionalized pyridines in aqueous ethanol. **J. Heterocyclic Chem.** **46: 69-73.**

2008

97. **Rawat, D. S.;** Krzysiak, A. J.; Gibbs, R. A. **2008.** Synthesis and biochemical evaluation of 3,7-disubstituted farnesyl diphosphate analogs. **J. Org. Chem.** **73: 1881-1887.**
98. Atheaya, H.; Khan, S. I.; Mangain, R.; **Rawat, D. S.*** **2008.** Synthesis, thermal stability, antimalarial activity of symmetrically and asymmetrically substituted tetraoxanes. **Bioorg. Med. Chem. Lett.** **18: 1446-1449.**
99. Sharma, M.; Agarwal, N.; **Rawat, D. S.*** **2008.** Barium nitrate catalyzed one pot synthesis of 1,4-dihydropyridines under solvent free conditions at room temperature. **J. Heterocyclic Chem.** **45: 737-739.**
100. **Rawat, D. S.***, **2008**, Recent advances in cancer chemotherapy-part II, **Anti-Cancer Agents-Med. Chem.** **8: 240.** Editorial
101. Singh, R.; Sharma, M.; Joshi, P.; **Rawat, D. S.*** **2008.** Clinical status of anti-cancer agents derived from marine sources. **Anti-Cancer Agents-Med. Chem.** **8: 603-617.**
102. Singh, R.; Sharma, M.; Mangain, R.; **Rawat, D. S.*** **2008.** Ionic liquids: A versatile medium for Palladium catalyzed reactions. **J. Braz. Chem. Soc.** **19: 357-379.**
103. **Rawat, D. S.*** **2008.** Recent advances in cancer chemotherapy-part I, **Anti-Cancer Agents-Med. Chem.** **8: 122** (Editorial).
104. **Rawat, D. S.*** **2008.** Target directed enediynes: Chemical and biological significance. **J. Indian Chem. Soc.** **85: 130-141** (Prof. D. P. Chakraborty 60th Birth Anniversary Commemoration Award).

2007

105. Krzysiak, J.; **Rawat, D. S.;** Scott, S.; Pais, J.; Harrison, M.; Fierke, C.; Gibbs, R. A. **2007.** Combinatorial modulation of protein prenylation. **ACS Chemical Biology** **2: 385-389.**
106. Bisht, G. S.; **Rawat, D. S.;** Kumar, A.; Kumar, R.; Pasha, S. **2007.** Antimicrobial activity of rationally designed amino terminal modified peptides. **Bioorg. Med. Chem. Lett.** **17: 4343-4346.**
107. Joshi, M. C.; Bisht, G. S.; **Rawat, D. S.*** **2007.** Syntheses and antibacterial activity of phendioxo substituted cyclic enediynes. **Bioorg. Med. Chem. Lett.** **17: 3226-3230.**

2006

108. Singh, R.; Sharma, R.; Tewari, N.; Geetanjali, **Rawat, D. S.** **2006.** **Chemistry and Biodiversity** **3: 1279-1287.**
109. Joshi, M. C.; Joshi, P.; **Rawat, D. S.*** **2006.** Microwave assisted synthesis of symmetrically and asymmetrically substituted acyclic enediynes. **Arkivoc**, **XVI: 65-74.**
110. **Rawat, D. S.*;** Joshi, M. C.; Joshi, P.; Aethaya, H. **2006.** Clinical status of marine derived anticancer peptides, **Anti-Cancer Agents-Med. Chem.** **6: 33-40.**

2005

111. Avasthi, K.; Aswal, S.; Kumar, R.; Yadav, U.; **Rawat, D. S.;** Maulik, P. R. **2005.** Fine tuning of folded conformation by change of substituents: ¹H NMR and crystallographic evidence for folded conformation due to arene interactions in pyrazolo[3,4-d]pyrimidine

core based 'propylene linker' compounds. **J. Mol. Str.** **750: 191-197.**

2004

112. **Rawat, D. S.;** Zaleski, J. M. **2004.** Geometric and electronic control of thermal Bergman cyclization. **Synlett** **393-421.**
113. McFarland, M. J.; Porter, A. C.; Rakhshan, F. R.; **Rawat, D. S.;** Gibbs, R. A.; Barker, E. L. **2004.** A Role for caveolae/lipid rafts in the uptake and recycling of the endogenous cannabinoid anandamide. **J. Biol. Chem.** **279: 41991-41997.**

2003

114. Benites, P. J.; Holmberg, R. C.; **Rawat, D. S.;** Kraft, B. J.; Klein, L. J.; Peters, D. G.; Thorp, H. H.; Zaleski, J. M. **2003.** Metal-ligand charge-transfer-promoted photoelectronic Bergman cyclization of copper metalloenediynes: Photochemical DNA cleavage via C-4 H-atom abstraction. **J. Am. Chem. Soc.** **125: 6434-6446.**
115. Avasthi, K.; Farque, F. A.; **Rawat, D. S.;** Sharon, A.; Maulik, P. R. **2003.** A stacked pyrazolo[3,4-d]pyrimidine based flexible molecule: The effect on stacking of a bulky isopropyl group in comparison with methyl and ethyl group. **Acta Cryst C59: o523-o524.**

2002

116. **Rawat, D. S.;** Gibbs, R. A. **2002.** Synthesis of 7-substituted farnesyl diphosphate analogues. **Org. Letts.** **4: 3027-3030.**
117. **Rawat, D. S.;** Zaleski, J. M. **2002.** A convenient method for the synthesis of 1,8-bis(pyridin-3-oxy)oct-4-ene-2,6-diyne. **Synth. Commun.** **32: 1489-1494.**
118. Avasthi, K.; Tewari, A.; **Rawat, D. S.;** Sharon, A.; Maulik, P. R. **2002.** A stacked pyrazolo[3,4-d]pyrimidine based flexible molecule: The effect of a bulky group on intermolecular stacking in comparison with methyl and ethyl group. **Acta Cryst C58: o494-o495.**
119. Avasthi, K.; **Rawat, D. S.;** Chandra, T.; Sharon, A.; Maulik, P. R. **2002.** Isomeric pyrazolo[3,4-d]pyrimidine-based molecules: Disappearance of dimerization due to interchanged substitutions. **Acta Cryst C58: o311-o313.**
120. Avasthi, K.; **Rawat, D. S.;** Sarkhel, S.; Maulik, P. R. **2002.** A dimeric layered structure of a 4-oxo-4,5-dihydropyrazolo[3,4-d]pyrimidine compound. **Acta Cryst. Sec C58: o325-o327.**

2001

121. **Rawat, D. S.;** Zaleski, J. M. **2001.** Mg²⁺-Induced thermal enediyne cyclization at ambient temperature. **J. Am. Chem. Soc.** **123: 9675-9676.**
122. **Rawat, D. S.;** Benites, P. J.; Incarvito, C.; Rheingold, A. L.; Zaleski, J. M. **2001.** The contribution of ligand flexibility to metal center geometry modulated thermal cyclization of conjugated pyridine and quinoline metalloenediynes of Copper(I) and Copper(II). **Inorg. Chem.** **40: 1846-1857.**
123. Avasthi, K.; **Rawat, D. S.;** Maulik, P. R.; Sarkhel, S.; Broder, C. K.; Howard, J. A. K. **2001.** ¹H NMR and X-ray crystallographic analysis of 1,2-bis(4,6-diethylthio-1H-pyrazolo[3,4-d]pyrimidin-1-yl)ethane and its 'propylene linker'-analog: Molecular recognition versus crystal engineering. **Tetrahedron Letters**, **42: 7115-7117.**

124. Maulik, P. R.; Avasthi, K.; Sarkhel, S.; Sharon, A.; **Rawat, D. S.**; Bal, C. **2001**. 1,3-Bis(8-Chlorotheophyllin-7-yl)propane: A molecule with no intramolecular staking. **Acta Crystallogr., Sect. E : Struct. Rep. Online. C57: o1163-o1165.**

2000

125. Benites, P. J.;* **Rawat, D. S.**;^{*} Zaleski, J. M. **2000**. Metalloenediynes: Ligand field control of thermal Bergman cyclization reactions. **J. Am. Chem. Soc. 122: 7208-7217.**
126. **Rawat, D. S.**; Zaleski, J. M. **2000**. Syntheses and thermal reactivities of symmetric and asymmetric enediynes: Steric control of Bergman cyclization reactions. **Chem. Commun. 2493-2494.**
127. Maulik, P. R.; Avasthi, K.; Sarkhel, S.; Chandra, T.; **Rawat, D. S.**; Logsdon, B.; Jacobson, R. A. **2000**. Disappearance of intramolecular stacking due to one atom movement or increment of a propylene linker in pyrazolo[3,4-d]pyrimidine-based flexible models. **Acta Cryst C56: 1361-1363.**

1998

128. Maulik, P. R.; Avasthi, K.; Biswas, G.; Biswas, S.; **Rawat, D. S.**; Sarkhel, S.; Chandra, T.; Bhakuni, D. S. **1998**. A stacked pyrazolo[3,4,-d]pyrimidine based flexible molecules", **Acta Cryst C54: 275-277.**
129. Avasthi, K.; **Rawat, D. S.**; Chandra, T.; Bhakuni, D. S. **1998**. Synthesis of stacked compounds based on pyrazolo[3,4-d]pyrimidines as new flexible models for studying intramolecular aromatic π - π interaction. **Indian J. Chem. 37B: 754-759.**
130. Avasthi, K.; Chandra, T.; **Rawat, D. S.**; Bhakuni, D. S. **1998**. Synthesis and high resolution proton NMR studies on isomeric N-1/N-2-,5,7- trisubstituted, -4,6- dioxo-4,5,6,7-tetrahydropyrazolo[3,4,-d]pyrimidines. **Indian J. Chem. 37B: 1228-1233.**

1996

131. Avasthi, K.; Chandra, T.; **Rawat, D. S.**; Bhakuni, D. S. **1996**. Convenient synthesis of phidolopin and analogs and their biological activities. **Indian J. Chem. 35B: 437-440.**

1. *Other publications (Patents, Book reviews, etc.)*

Patents:

1. **Diwan S Rawat***, Binghe Wang, Nitin Kumar, Sunny Manohar, Xiaochuan Yang, Guojing Sun, Curcumin analogues and methods of making and using thereof. **US 2015/0152056A1, June 4, 2015.**
2. **Diwan S Rawat***, Sunny Manohar, Ummadisetty Chinna Rajesh, Deepak Kumar, Anuj Thakur, Mohit Tripathi, Panyala Linga Reddy, Shamseer Kulangara Kandi, Satyapavan Vardhini, Kwang-Soo, and Chun-Hyung Kim, Amino-quinoline based hybrids and uses thereof. **US2015/0023930 A1 (2015).**
3. **Diwan S Rawat***, Binghe Wang, Nitin Kumar, Sunny Manohar, Xiaochuan Yang, Guojing Sun, Curcumin analogues and methods of making and using thereof. **PCT/US2013/053216 (2014).**
4. **Diwan S Rawat***, Sunny Manohar, Ummadisetty Chinna Rajesh, Deepak Kumar, Anuj Thakur, Mohit Tripathi, Panyala Linga Reddy, Shamseer Kulangara Kandi, Satyapavan Vardhini, Kwang-Soo, and Chun-Hyung Kim, Amino-quinoline based hybrids and uses

- thereof. **WO2013134047 A3, PCT/US2013/028329, PCT/US2013/028329 (2013).**
5. **Diwan S Rawat***, Sunny Manohar, U. Chinna Rajesh, Amino-quinoline based hybrids and uses thereof, **Indian Patent Application 661/DEL/2012.**
 6. **Diwan S. Rawat***, Mukul Sharma, Nilanjan Roy, Rajesh K. Rohilla, Substituted cyclohexane-1,2-diamine derivatives and related compounds as antimicrobial agents. **Application No: 1462/DEL/2008.**
 7. **Diwan S. Rawat***, Nitin Kumar, Mukul Sharma, Symmetrically and asymmetrically substituted tetraoxane compounds, methods of preparation and uses thereof. **Application No: 2103/DEL/2008.**
 8. Jeffrey M. Zaleski; **Diwan Singh Rawat**, Eneidyne compounds and methods related thereto. **US Patent No: US 7,211,603 B1 (2007).**
 9. Jeffrey M. Zaleski; **Diwan Singh Rawat**, Compounds, compositions, and methods for photodynamic therapy. **US Patent No: US 6,828,439 B1 (2004).**

Book review/editing:

- a. Review of the book was published in *Journal of American Chemical Society (J. Am. Chem. Soc.* 128, 4494, 2006).
- b. Reviewed a book entitled "Natural Products Chemistry" to be published by Elsevier (June 2007).
- c. Reviewed a book entitled "Organic Reaction Mechanism" to be published by Macmillan India Ltd (June 2008).
- d. **Edited** especial issues of Anti-Cancer Agents in Medicinal Chemistry (Published by Bentham).

Citations (May 30, 2018; Google Citation)

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Conference Organization/ Presentations (in the last three years)

List against each head(If applicable)

1. **Organization of a Conference**
 2. **Participation as Paper/Poster Presenter**
1. **Diwan S Rawat**, "An art of drug discovery" HNB Central University, Srinagar. **April 27-28, 2018 [Key Note Speaker].**
 2. **Diwan S Rawat**, "Hybridization approach: An alternative of combination therapy in medicinal

- chemistry" DAV University, Indore, **March 24, 2018 (Key Note Speaker)**.
3. **Diwan S Rawat**, "Joy of drug discovery" Amity University, Manesar, **February 6, 2018**.
 4. **Diwan S Rawat**, "Characterization of organic compounds by spectroscopic techniques" National Tobacco Research Laboratory, Noida, **January 30, 2018**.
 5. **Diwan S Rawat**, "Systematic structural variation: The way of drug development" National conference on Chemical sciences: An interdisciplinary approach, Modern College of Arts, Science and Commerce, Pune, **January 18-20, 2018**.
 6. **Diwan S Rawat**, "Aminoquinolines: Exploration of medicinal potential" Emerging trends in drug development and natural products, University of Delhi, **January 12-14, 2018**.
 7. **Diwan S Rawat**, "Molecular hybridization a new approach drug discovery" School of Material Sciences, Japan Advanced Institute of Science and Technology, **October 5, 2017**.
 8. **Diwan S Rawat**, "Molecular hybridization: Reality or myth" Toyama University, Toyama, **October 4, 2017**.
 9. **Diwan S Rawat**, "Molecular hybridization and drug discovery" Almeno Pvt Ltd Hyderabad, **September 9, 2017**.
 10. **Diwan S Rawat**, "Nano-catalysis and Sustainable Synthesis" Indian Institute of Technology (ISM) Dhanbad, **June 15, 2017**.
 11. **Diwan S Rawat**, Organic Spectroscopy: Entertainment or Melancholy, Indian Institute of Technology (ISM) Dhanbad, **June 15, 2017**.
 12. **Diwan S Rawat**, "Why young minds should persue chemistry" Hansraj College, **April 10, 2017**.
 13. **Diwan S Rawat**, "Sustainable nanocatalysts for organic transformation" JAIST Japan-India Symposium on Materials Science 2017" Japan Advanced Institute of Science and Technology, **March 6 - 7, 2017**.
 14. **Diwan S Rawat**, "Molecular hybrid based drug design: A lesson from the nature" 23rd ISCB International Conference (ISCBC - 2017) "Interface of Chemical Biology in Drug Research" SRM University, Chennai, **February 8 - 10, 2017**.
 15. **Diwan S Rawat**, "Nano-catalysis and sustainable synthesis" National conference on innovation in chemical sciences, Shivaji University, Kolhapur, Kolhapur, **February 1 - 2, 2017 (Key Note Address)**.
 16. **Diwan S Rawat**, "Chemistry, human health and environment" INSPER-Mentor, GD Goenka University, Gurgaon, **January 13, 2017**.
 17. **Diwan S Rawat**, "How to make spectroscopy instresting?" Refresher course for college teachers, Jawaharlal Nehru University, Delhi, **January 5, 2017**.
 18. **Diwan S Rawat**, "Catalysis on the Nanoscale: Preparation and Application in Multi-component Organic Synthesis" Asian Network for Natural and Unnatural Materials (ANNUM-IV, 2016), National University of Singapore, **June 8 - 11, 2016**.
 19. **Diwan S Rawat**, "Molecular hybrid based drugs", International Conference on Frontiers at the Chemistry-Allied Sciences Interface, Department of Chemistry, University of Rajasthan, **April 25-26, 2016**.
 20. **Diwan S Rawat**, "Nano materials and their application in organic conversions", National Conference on Chemistry: Environment and Harmonious Development and Ecosystems, Shyamlal College, Delhi, **April 7-8, 2016 (Plenary Lecture)**.
 21. **Diwan S Rawat**, "Recent advances in the development of molecular hybrids based drug, National Conference on Chemistry and Ecosystems, Arya PG College, Panipat, **March 19, 2016 (Plenary Lecture)**.
 22. **Diwan S Rawat**, "Aminoquinoline based molecular hybrids: From antimalarial to anti-Parkinson potential, 103rd Indian Science Congress, University of Mysore, Mysore, **January 3-7, 2016 (Prof RC Shah Memorial Award)**.
 23. **Diwan S Rawat**, "Antimalarial and anti-Parkinson potential of aminoquinoline based molecular

- hybrids, 52nd Annual Convention of Chemist2 1015 and International Conference on Recent Advances in Chemical Sciences, JECRC University, Japipur, **December 29-30, 2015.**
24. **Diwan S Rawat**, "Hybrid drugs: An alternative method of designing new drug molecules" National seminar on chemistry and healthcare, Jamia Millia Islamia, Delhi, **December 17, 2015.**
 25. **Diwan S Rawat**, "Significance of chemical education" INSPIRE camp, SRM University, **December 16, 2015.**
 26. **Diwan S Rawat**, "Life of a chemist without spectroscopy" TEQUIP-II Sponsored Short Term Course on Recent Trends in Synthetic Chemistry and its Relevance, NIT, Jalandhar, **December 07 - 13, 2015.**
 27. **Diwan S Rawat**, "Spectroscopy: Introduction to structure determination" TEQUIP-II Sponsored Short Term Course on Recent Trends in Synthetic Chemistry and its Relevance, NIT, Patna, **December 10 - 11, 2015 (Chief Guest, Key Note Lecture).**
 28. **Diwan S Rawat**, "Molecular hybridization in drug discovery: A myth or reality" Current Challenges in Drug Discovery Research" MNIT, Jaipur, **November 23-25, 2015 (Planary Lecture).**
 29. **Diwan S Rawat**, "Catalysis at nano scale: One step towards green and sustainable processes" JAIST Symposium on Advanced Science and Technology, Japan Advanced Institute of Science and Technology, Japan, **November 10 - 12, 2015.**
 30. **Diwan S Rawat**, "Nanocatalysis for sustainable society" National Workshop on "Recent Trends in Environmental Science and Carbon Management"(RTCM-2015), Central University Himanchal, **November 19-20, 2015.**
 31. **Diwan S Rawat**, "Hybrid drugs: A myth or reality" National Conference on Innovation, Advance Research in Biomedical and Environmental Dynamics, Dayal Singh College, Delhi University, **October 09 - 10, 2015**
 32. **Diwan S Rawat**, "Molecular hybridization in drug discovery" National Conference on Science and Technology for Indigenous Development in India, Indian Science Congress Association: Haridwar Chapter, Gurukul Kangari University, Haridwar, **September 28 - 30, 2015.**
 33. **Diwan S Rawat**, "Challenges and new opportunities in drug discovery" Chem Fest, Hindu College, University of Delhi, **August 22, 2015.**
 34. **Diwan S Rawat**, "Medicinal chemistry: Challenges and new approaches" National Inter-Disciplinary Science Conference-2015, Recent Research Trends in Chemical and Environmental Sciences, Sri Pratap College, Srinagar, **August 18 - 19, 2015.**
 35. **Diwan S Rawat**, "Molecular hybrids: An innovative approach in drug discovery" Drug Discovery and Therapy World Congress - 2015 (DDTWC 2015), Boston **July 22 - 25, 2015.**
 36. **Diwan S Rawat**, "Medicinal chemistry: Opportunities and challenges" McLean Hospital, Harvard University, Boston **July 20, 2015.**
 37. **Diwan S Rawat**, "Spectroscopic tools for organic chemist: An introduction" CPDHE Refresher Course, **University of Delhi, June 30, 2015.**
 38. **Diwan S Rawat**, "**Nanocatalysis: A Green and Sustainable Approach Towards Organic Synthesis**" National Conference on Science and Technology for Human Development, Gurukul Kangari University, Haridwar. March 20-21, 2015.
 39. **Diwan S Rawat**, "**Nanocatalysis in Multicomponent Organic Synthesis: A Green and Sustainable Approach**" Indo-Japan Symposium of Material Sciences, Department of Material Sciences, Japan Advanced Institute of Science and Technology (JAIST), Japan. March 2-3, 2015.
 40. **Diwan S Rawat**, "**Molecular hybridization: a useful tool in the design of new drug prototype**" 21st ISCB International Conference on Current trends in drug discovery and developments, Central Drug Research Institute, Lucknow. **February 25 to 28, 2015.**
 41. **Diwan S Rawat**, "**Nano Materials as Heterogeneous Catalyst in Multicomponent Organic Synthesis: One Step Towards Green and Sustainable Processes**" International Conference on Green Initiatives in Science and Technology-GIST 2015, Department of Chemistry, Manav

- Rachana University, Faridabad. **January 15, 2015.**
42. **Diwan S Rawat**, "Future of molecular hybridization in drug discovery" National Seminar on Relevance of Medicinal Plants in 21st Century, Department of Botany, Ramjus College. **February 10 – 11, 2015.**
 43. **Diwan S Rawat**, "NMR Spectroscopy and its applications" CPDHE Refresher Course, Delhi Technological University, Delhi, **21st December, 2014.**
 44. **Diwan S Rawat**, "Heterogeneous Catalysis in Multicomponent Organic Synthesis: One Step Towards Green Processes", Indian Council of Chemist 33rd Annual National Conference, Department of Applied Chemistry, Indian Institute of Mines, Dhanbad, **15th – 17th December 2014.**
 45. **Diwan S Rawat**, "Molecular Hybrids: An Innovative Approach in Drug Discovery Paradigm" 4th Biennial International Conference on New Development in Drug Discovery from Natural Products and Traditional Medicines, Department of Natural Products, National Institute of Pharmaceutical Education and Research (NIPER), Mohali. **20th – 22nd November, 2014.**
 46. **Diwan S Rawat**, "Novel Drug Candidate Based on 4-Aminoquinoline and Pyrimidine Pharmacophore for the Treatment of Malaria" National Seminar on Recent Advances in Medicinal Chemistry, Department of Chemistry, Lucknow Christian P. G. College, Lucknow. **7th – 9th November, 2014.**
 47. **Diwan S Rawat**, "Spectroscopy: Introduction to Structure Elucidation" CPDHE Refresher Course, Jamia Millia Islamia University, Delhi, **25th October, 2014.**
 48. **Diwan S Rawat**, "Pros and cons of drug development" KM College, University of Delhi, **24th September, 2014.**
 49. **Diwan S Rawat**, "Excitement and agony of a medicinal chemist!" Deen Dayal Upadhaya College, University of Delhi, **26th August, 2014.**
 50. **Diwan S Rawat**, "Aminoquinoline pharmacophore: It's impossible to abandon!" Him Science Congress Association, 2nd Annual National Conference - Science: Emerging Scenario & Future Challenges, Shimla, **17-18 May, 2014.**
 51. **Diwan S Rawat**, "Discovery of lead antimalarial through rational drug design" International conference on Drugs for Future: Infectious Diseases, **NIPER Hyderabad, March 27-28, 2014.**
 52. **Diwan S Rawat**, "NMR Spectroscopy and its Role in Structure Determination" M.J.P ROHILKHAND UNIVERSITY, February 21, 2014.
 53. **Diwan S Rawat**, "**Drug Discovery: Long Road with Complete Uncertainty**", Gautam Budha University, Noida, *Science Day Celebration, February 28, 2014.*
 54. **Diwan S Rawat**, "History of chemical and nano sciences" UGC-SAP National Symposium on recent trends in chemical and nano sciences. Shivaji University, Kolhapur, **January 17-18, 2014 (Address as a Chief Guest).**
 55. **Diwan S Rawat**, "Aminoquinoline based molecular hybrids as potential antimalarials" UGC-SAP National Symposium on recent trends in chemical and nano sciences. Shivaji University, Kolhapur, **January 17-18, 2014 (Key Note Address).**
 56. **Diwan S Rawat**, "Identification of lead antimalarial through virtual screening" 8th Uttarakhand Science and Technology Congress" Doon University, Dehradun. **December 26-28, 2013 (Lead Lecture).**
 57. **Diwan S Rawat**, "Discovery of Aminoquinoline Based Hybrids as Potential Antimalarial" National Conference on Recent Trends in Chemistry Education" Department of Chemistry, Sir Sayyed College of Arts, Commerce and Science, Aurangabad. **December 13-14, 2013.**
 58. **Diwan S Rawat**, "Recyclable catalysis in Organic Synthesis: One Step towards Green processes" Workhardt Research Centre, Aurangabad. **December 13, 2013.**
 59. **Diwan S Rawat**, "Medicinal Chemistry: Basics to Drug Discovery-DST INSPIRE Camp, HNB Garhwal Central University, Srinagar **December 11, 2013.**
 60. **Diwan S Rawat**, "Medicinal Chemistry: An Ever Green Area with Complete Uncertainty"

University Institute of Pharmaceutical Sciences, Punjab University, Chandigarh, November 18 – 21, 2013.

61. **Diwan S Rawat**, “NMR Spectroscopy: Basic Introduction to Structure Determination” CPDHE Refresher Course, **Jamia Millia Islamia University, Delhi, November 26, 2013.**
62. **Diwan S Rawat**, “Heterogeneous catalysis in organic synthesis: One step towards green processes” International symposium on advanced materials, Japan Advanced Institute of Science and Technology (JAIST), **October 17-18, 2013.**
63. **Diwan S Rawat**, “Drug Discovery: Excitement and Agony, Alwar Institute of Engineering and Technology, Alwar-DST INSPIRE Camp, **August 8, 2013.**
64. **Diwan S Rawat**, “Antimalarial Lead Identification through Rational Drug Design” 5th NIPER (Rbl)-CDRI Symposium on Chemical and Biological Approaches in Drug Development and Delivery Strategies, CDRI, Lucknow, **March 21-23, 2013.**
65. **Diwan S Rawat**, “Antimalarial Drug Development From Simple in vitro Screening to Lead Identification” 19th ISCB International Conference (ISCB-2013), **Recent Advances and Current Trends in Chemical and Biological Sciences**, Department of Chemistry, Mohanlal Sukhadia University, Udaipur, Rajasthan, **March 2-5, 2013.**
66. **Diwan S Rawat**, “Development of Tetraoxane and Aminoquinoline Based Antimalarials through Rational Drug Design” **Emerging trends in the Development of Drugs and Devices**, Department of Chemistry, University of Delhi, Delhi-110007, **January 21-23, 2013.**
67. **Diwan S Rawat**, “Interesting story about aspirin and famous Indian scientist” **Centre for Environmental Management of Degraded Ecosystem**, University of Delhi, Delhi-110007, **January 12, 2013.**
68. **Diwan S Rawat**, Inspiring Young Minds: Biographies of Great Indian Scientist, **DST-INSPIRE Camp, Asian Institute, Patiala, January 5, 2013.**
69. **Diwan S Rawat**, Nuclear Magnetic Spectroscopy: Basic Principle to Structure Determination, **Centre for Professional Development in Higher Education**, University of Delhi, **January 3, 2013.**
70. **Diwan S Rawat**, Spectral Problems: A Puzzle!, Thiagarajar College, Madurai Kamraj University, Madurai, **26th December 2012.**
71. **Diwan S Rawat**, Malaria: How to take it?, Thiagarajar College, Madurai Kamraj University, Madurai, **26th December 2012.**
72. **Diwan S Rawat**, Nuclear Magnetic Resonance: Introduction to structure elucidation, National Workshop on Advance Analytical Techniques in Research and Development, **Amity Institute of Applied Sciences, Amity University, Noida, 20-21 December 2012.**
73. **Diwan S Rawat**, Catalysis in organic synthesis: Some trends and applications, “International Conference on Chemistry and Materials: Prospects & Perspectives” **Babasaheb Bhimrao Ambedkar University (A Central University), Lucknow, 14-16 December, 2012.**
74. **Diwan S Rawat**, Aspirin: From tree bark to Bayer’s drug for the ages. Workshop on Microbial Biotechnology, **Ramjus College**, University of Delhi, Delhi, **December 10, 2012 (KEY NOTE ADDRESS).**
75. **Diwan S Rawat**, “Aminoquinoline and tetraoxane based antimalarials: Lead identification through reversed genomics approach” 3rd Biennial International Conference on New Developments in Drug Discovery from Natural Products and Traditional Medicines, **NIPER, Mohali, November 22-24, 2012.**
76. **Diwan S. Rawat**, “Library of small organic molecules and their medicinal potential” **Swami Shradhanand College**, University of Delhi, Delhi, **April 11, 2012.**
77. **Diwan S. Rawat**, “Spectroscopy: Why it is so important” **Centre for Professional Development in Higher Education**, Banaras Hindu University, **March 23, 2012.**
78. **Diwan S. Rawat**, “Spectrum to structures” **Centre for Professional Development in Higher Education**, Banaras Hindu University, **March 23, 2012.**

79. **Diwan S Rawat**, "Is ^1H NMR spectroscopy is more important than other spectroscopic techniques" 150th Years celebration of Lucknow Christian College, Lucknow, **February 25, 2012**.
80. **Diwan S Rawat**, "Nitrogen and oxygen heterocycles: Synthesis and antimalarial activity evaluations", 4th NIPER (Rbl)-CDRI Symposium on Medicinal Chemistry and Pharmaceutical Sciences, CDRI, Lucknow, **February 23-25, 2012**.
81. **Diwan S Rawat**, "Cyclohexane diamine based small molecular library: Synthesis and biological evaluation", National Seminar on Recent Trends in Chemical and Biological Sciences" Holker Science College, Indore, **January 13-15, 2012**.
82. **Diwan S Rawat**, "Tetraoxane and aminoquinoline scaffolds as antimalarials", Chemical Research Society of India, South Zonal Meeting, Pondicherry University Pondicherry, **December 16-17, 2011**.
83. **Diwan S Rawat**, "Natural product inspired biologically active compounds: Synthesis and biological evaluation", National Symposium on Traditional Indian Medicinal Plants in the International Year of Chemistry, National Academy of Chemistry and Biology, Lucknow, NBRI, Lucknow, **December 17-18, 2011**.
84. **Diwan S Rawat**, "Exploring structural diversity in tetraoxanes and amino-quinolines for the development of novel antimalarials, 48th Annual Convention of Chemist and Celebration of the International Year of Chemistry, Allahabad University, Allahabad, **December 3-7, 2011**.
85. **Diwan S Rawat**, "Cyclohexane diamine based compounds: Synthesis and biological activity evaluation", Challenges in Drug Discovery and Development (CDDD-2011), Central Drug Research Institute, Lucknow, **December 9-10, 2011**.
86. **Diwan S Rawat**, "[Synthesis and anti-bacterial activity evaluation of cyclohexane diamine based compounds](#)", National Conference on Chemistry-Biology Interface, Kumaun University, Nainital, **November 3-6, 2011**.
87. **Diwan S Rawat**, Spectral data to molecular structure, **Centre for Professional Development in Higher Education**, University of Delhi, Delhi, **February 24, 2011**.
88. **Diwan S. Rawat**, Synthesis and Biological Activity Evaluation of Cyclohexane Diamine Derivatives, International Conference on Advances in Applied Chemical Sciences and Innovative Materials, Indian Institute of Technology, Delhi, **August 10-12, 2011**.
89. **Diwan S Rawat**, Synthesis and antimicrobial activity evaluation of cyclohexane-1,2-and 1,3-diamine derivatives and metronidazole-triazole conjugates, **15th ISCB International Conference (ISCB-2011), Chemical biology for discovery: Perspectives and challenges**, Saurashtra University, Rajkot, Gujrat, **February 4th - 7th 2011**.
90. **Diwan S Rawat**, Tetraoxane and aminoquinoline based molecules as potential antimalarial agents, One day seminar on "Recent trends on chemical biology, **Central Institute of Aromatic and Medicinal Plants, Lucknow, UP, January 28, 2011**.
91. **Diwan S Rawat**, "Tetraoxanes, and tetraoxane based hybrids as potential antimalarial agents" **14th National Organic Symposium Trust (NOST), Goa, December 4th - 8th, 2010**.
92. **Diwan S. Rawat**, "Natural products as a source of drug molecules" **Centre for Professional Development in Higher Education**, Kumaun University, Delhi, **December 17, 2010**.
93. **Diwan S. Rawat**, "Spectral data to molecules structure" **Centre for Professional Development in Higher Education**, Kumaun University, Delhi, **December 17, 2010**.
94. **Diwan S Rawat**, "Tetraoxanes, tetraoxane-aminoquinoline/triazine conjugates as potential antimalarial agents" **National Seminar of Recent Advances in Chemical Sciences, Rewa University, Rewa, MP. May 2010**.
95. **Diwan S Rawat**, "Synthesis and antimalarial activity evaluation of tetraoxanes, tetraoxane-aminoquinoline/triazine conjugates" **14th ISCB International Conference (ISCB-2010), Chemical biology for discovery: Perspectives and challenges**, Central Drug Research Institute, Lucknow, Lucknow, **January 15th-18th, 2010 (Young scientist award lecture, News**

Published *by* *Indian* *Express:*
http://www.expressindia.com/story_print.php?storyId=569055).

96. **Diwan S. Rawat**, "Design, synthesis and antimalarial activity evaluation of oxygen and nitrogen heterocycles" **T3D International Symposium on Trends in Drug Discovery and Development**, University of Delhi, Delhi, **January 5th-8th 2010**.
97. **Diwan S. Rawat**, "Drug discovery: Excitement and agony" **KEME 2009**, Hans Raj College, University of Delhi, Delhi, **17th December 2009**.
98. **Diwan S. Rawat**, "Development of tetraoxane, aminoquinoline and triazine based antimalarials" **4th Uttrakhand State Science and Technology Congress 2009**, GB Pant University of Agriculture and Technology, Pantnagar **10-12 November 2009 (KEY NOTE ADDRESS)**.
99. **Diwan S. Rawat**, "Natural product chemistry: Opportunities and challenges" **Centre for Professional Development in Higher Education**, Jamia Millia University, Delhi, **August 31, 2009**.
100. **Diwan S. Rawat**, "Bioprospecting for secondary metabolites" **Centre For Environmental Management of Degraded Ecosystem**, University of Delhi, Delhi-110007, **March 21, 2009**.
101. **Diwan S. Rawat**, "Endoperoxides: Synthesis and Antimalarial Activity Evaluations" **Indo-Denish Seminar on Bioorganic Chemistry**, University of Delhi, Delhi-110007, India; **2nd March 2009**.
102. **Diwan S. Rawat**, "Tetraoxanes as Artemisinin Mimics: Synthesis and Antimalarial Activity Evaluations" **13th ISCBC International Conference on Interplay of Chemical and Biological Sciences: Impact on Health and Environment**, University of Delhi, Delhi-110007, India; **26th-1st March 2009**.
103. **Diwan S. Rawat**, "Natural product and organic spectroscopy" **Centre for Professional Development in Higher Education**, University of Delhi, Delhi-110007, **January 27, 2009**.
104. **Diwan S. Rawat**, "Tetraoxanes and enediynes: Synthesis and biological activity evaluations" **Centre for Professional Development in Higher Education**, University of Delhi, Delhi-110007, **January 15, 2009**.
105. **Diwan S. Rawat**, Eneidyne Reactivity: Chemical and Biological Significance. "**International Seminar on Recent Advances in Organic Chemistry**" Department of Chemistry, Andhra University, Visakhapatnam, **December 12-13, 2008**.
106. **Diwan S. Rawat**,* Nitin Kumar, S. I. Khan, Mukul Sharma, Ritu Mamgain, Himanshu Atheaya, Symetrically and Asymmetrically Substituted Tetraoxanes: Synthesis Tetraoxanes as Artemisinin Mimics: Synthesis and Antimalarial Activity Evaluation, "**INDO-Italian Seminar on Green Chemistry and Natural Products**", Department of Chemistry, University of Delhi, **5-6 December 2008**.
107. **Diwan S. Rawat**, Natural Product Chemistry: Opportunity and Challenges. "**Eight National Convention of Chemistry Teachers NCCT-2008 and National Conference on Chemistry: Emerging Trends in Chemistry**" Department of Chemistry, HNB Garhwal University, Srinagar, Garhwal, Uttrakhand, **November 8-9, 2008**.
108. **Diwan S. Rawat**, Symetrically and Asymmetrically Substituted Tetraoxanes: Synthesis and Antimalarial Activity Evaluations, "**National Conference on Recent Advances in Chemical Sciences**", PG Department of Chemistry, Government Dungar College, University of Bikaner, **October 3-5, 2008**.
109. **Diwan S. Rawat**, Natural Products and Natural Product Mimics: A Medicinal Chemistry Prospectives, "**National Conference on Increasing Production and Productivity of Medicinal and Aromatic Plants through Traditional Practices**", G. B. Pant University of Agriculture and Technology, Pantnagar, Uttrakhand, **September 18-20, 2008**.
110. **Diwan S. Rawat**, Himanshu Atheaya, Ritu Mamgain, S. I. Khan, Synthesis, characterization,

thermal stability and antimalarial activity of symmetrically and asymmetrically substituted tetraoxanes, “**12th ISCB Conference, International Conference on the Interface of Chemistry-Biology in Biomedical Research**” BITS, Pillani, **February 22-24, 2008**.

111. **Diwan S. Rawat**, “Bioprospecting for natural products of therapeutic values: Opportunities and challenges” **Centre For Environmental Management of Degraded Ecosystem**, University of Delhi, Delhi-110007, **February 2, 2008**.
112. **D. S. Rawat**, “Target-directed enediynes: Chemical and biological significance” **44th Annual Convention of Chemists held at Mahatma Gandhi Institute of Applied Sciences, Jaipur, December 23-27 (2007) (Prof. D. P. Chakraborty 60th Birth Anniversary Commemoration Award Lecture)**.
113. **Diwan S. Rawat**, “Natural product chemistry: Opportunities and challenges”. **Centre for Professional Development in Higher Education**, University of Delhi, Delhi-110007. **December 29, 2007**.
114. **Diwan S. Rawat**, Mukesh Chandra Joshi and Penny Joshi “Synthesis, characterization and thermal reactivity of cyclic/acyclic enediynes” **93rd Indian Science Congress** Acharya N. G. Ranga Agricultural University Rajendranagar, Hyderabad A P, **January 3rd to 7th 2006**.
115. **Diwan S. Rawat** “Bergman cyclization: Old reaction-New developments” G. B. Pant University of Agriculture and Technology, Pant Nagar, UA. **December 23, 2005**.
116. **Diwan S. Rawat** “Synthesis and Biological Significance of Natural Product Analogues”. **National Seminar on Chemistry-Industry Interface**, ARSD College, University of Delhi, **8-9 December 2005**.
117. **Diwan S. Rawat** “Attended Eleventh NOST Symposium” Goa, **October 25-29, 2005**.
118. **Diwan S. Rawat** “Metal Induced Bergman Cyclization: A New Approach for the Development of Enediyne Based Anticancer Agents” Ranbaxy Laboratories Limited, Gurgaon. **13 August, 2004**.
119. **Diwan S. Rawat**, and Richard A Gibbs, “Design and Syntheses of Substituted Farnesyl Pyrrophosphates: A New Class of Anticancer Agents”. **IUPAC Conference on Biodiversity and Natural Products: Chemistry and Medical Applications**. Department of Chemistry, University of Delhi, Delhi. **26-31 January 2004**.
120. **Diwan S. Rawat**, “Enediynes: Reactivity Modulation by the use of Metals”. Central Drug Research Institute, Lucknow, India **February 25, 2003**.
121. **Diwan S. Rawat**, “Design and Synthesis of Genotoxic Enediynes. **Centre for Professional Development in Higher Education**, University of Delhi, Delhi-110007. **September 11, 2003**.
122. **Diwan S. Rawat**, Jeffrey M. Zaleski and Richard A. Gibbs, “Design, Synthesis, and Biological Evaluation of Genotoxic and Non-genotoxic agents”. Department of Chemistry, Kumaun University, Nainital, India. **November, 2002**.
123. **Diwan S. Rawat** and Richard A. Gibbs, “Synthesis and Biological Evaluation of Farnesyl Transferase Inhibitors”. Department of Medicinal Chemistry and Molecular Pharmacology, Purdue University, West Lafayette, IN, USA, **September, 2002**.
124. **Diwan S. Rawat** and Jeffrey M. Zaleski, “Design, Synthesis and DNA Cleavage Activity of Metalloenediynes”. Department of Chemistry, Indiana University, Bloomington, IN, USA., **July, 2001**.
125. **Diwan S. Rawat** and Jeffrey M. Zaleski, “Ligand Field Control of Thermal Bergman Cyclization Reactions, Department of Chemistry, Kumaun University, Nainital, India. **September, 2001**.

Research Projects (Major Grants/Research Collaboration)

1. Electronic control of thermal Bergman cyclization reactions: A new approach towards the development of novel enediyne anticancer molecules; **Department of Science and Technology (DST) New Delhi, Duration: 2004-2007.**
2. Design and synthesis of Tetraoxanes and Tetraoxane based modular molecules as potential antimalarial agents, **Council of Scientific and Industrial Research (CSIR), New Delhi, Duration: 2004-2008.**
3. Syntheses and Biological Evaluation of Phidolopin Analogues, **University Grants Commission (UGC), New Delhi, Duration: 2007-2010.**
4. Synthesis of substituted tetraoxanes and tetraoxane-aminoquinoline/amine conjugates as potential antimalarial agents, **Department of Science and Technology (DST) New Delhi, Duration: 2009-2012.**
5. Synthesis, anticancer activity, QSAR, and mechanistic studies of curcumin derivatives, **DUPURSE Grant, University of Delhi, Duration: 2012-2013.**
6. Design and Syntheses of Novel 4-Aminoquinoline-triazine/triazole and 4-Aminoquinoline-Curcumin Conjugates as Potential Antimalarial Agents, **University Grants Commission (UGC), New Delhi, Duration: 2012-2015.**
7. Synthesis and anti-cancer activity evaluation of C5-curcuminoids and C5-curcuminoid-hybrids, **Council of Scientific and Industrial Research (CSIR), New Delhi, Duration: 2012-2015.**
8. Synthetic Nurr1 ligand as novel neuroprotective therapeutics to treat Parkinson's disease, **The Michael J. Fox Foundation, USA, Duration 2014 - 2016.**
9. Aminoquinoline-pyrimidine based molecular hybrids: Synthesis, antimalarial activity, docking and heme binding studies" **SERB- Govt of India (File Number: EMR/2014/001127) 2015 - 2018.**
10. Development of nanocatalysts for the sustainable synthesis of novel C5-curcuminoid-indolizine/quinoline/benzofuran hybrids as anticancer agents" **DST- Govt of India (File Number: DST/INT/JSPS/P-214/2016). 2016 - 2018.**

Research Collaboration:

- ❖ **Dr. Shabana Khan**, University of Mississippi, USA
- ❖ **Prof. N. Roy**, National Institute of Pharmaceutical Education and Research, Mohali
- ❖ **Prof. Tanya Parish**, Infectious Disease Research Institute, 1124 Columbia Street, Suite 400, Seattle, Washington, USA
- ❖ **Prof. Binge Wang**, Georgia State University, Athens, USA
- ❖ **Prof. AK Tyagi**, University of Delhi
- ❖ **Prof. Kwang-Soo Kim**, Molecular Neurobiology Laboratory MRC216, McLean Hospital/Harvard Medical School, Boston, USA.
- ❖ **Dr. Ramandeep Singh**, Translational Health Science and Technology Institute Vaccine and Infectious Disease Research Centre Gurgaon, Haryana.

- ❖ *Dr. Anthony Addlagatta, Indian Institute of Chemical Technology, Hyderabad.*
- ❖ *Professor Peter J Smith, Division of Pharmacology, University of Cape Town, South Africa.*
- ❖ *Professor Lube Wiesner, Division of Pharmacology, University of Cape Town, South Africa.*

Awards and Distinctions

- **Brand Ambassador**, Bentham Science Publishers (2017).
- **Associate Editor**, RSC Advances (2016, Impact Factor 3.84).
- **Fellow**, Royal Society of Chemistry (FRSC, 2016).
- **CChem**, Royal Society of Chemistry (London, 2016)
- **Professor SP Hiremath Memorial Award**, Indian Council of Chemist, 2016.
- **Professor RC Shah Memorial Lecture Award**, Indian Science Congress, 2015 – 16.
- **Visiting Professor**, Japan Advanced Institute of Science and Technology (JAIST), Japan.
- **Gold Badge and Diploma**, International Scientific Partnership Foundation, Russia (2015).
- **Executive Member**: Indian Society of Chemist and Biologist (2013-2015).
- **VC's Pratik Chinha Samman**, Kumaun University Nainital, November, 2011.
- **Young Scientist Award, Indian Society of Chemist and Biologist (ISCB), 2010.**
- **Elected Life Member**, The National Academy of Sciences, Allahabad **2007.**
- **Prof. D. P. Chakraborty 60th Birth Anniversary Commemoration Award 2007** (Awarded by Indian Chemical Society).
- **Young Researcher Award, Chemical Research Society of India (CRSI) 2007.**
- **Merit Certificate (MSc Topper)**, Kumaun University, Nainital, UK, India, **1993.**

Awards/Honors (Students):

- **Best poster award** in ACS on Campus India Roadshow-2018, University of Delhi, Delhi, **February 5, 2018 [Dr Archana Gupta].**
- **Best oral presentation award** in RSC Workshop on Chemistry for Tomorrow's World, New Delhi, India, **2-3rd December, 2015 (Upasana Gulati).**
- **International Best Research Scholar Award-2014** from **International Science Congress Association (ISCA)**, Indore, India **December 8, 2014 (U. Chinna Rajesh).**
- **Young Researcher Award-2015** received from **Prof. Robert Huber (Nobel Laureate in Chemistry, 1988)** during NANO-15 International Conference, K. S. R. College of Technology, Tiruchengode, India **(U. Chinna Rajesh).**
- **Best Poster Award in 3rd International Conference and Exhibition on Materials Science & Engineering**, San Antonio, USA, **October 6-8, 2014 (U. Chinna Rajesh).**
- **Poster-Walkway of Discovery recognition** received from **Bharat Ratna Prof. C. N. R. Rao**, in **7th Bangalore India Nano International Conference, Product & Technology Exhibition**, Bangalore, India, **December 5-6, 2014 (U. Chinna Rajesh).**
- **Young Researchers Forum Award** from **Material Science and Engineering, OMICS Group**, San Antonio, USA, **October 6-8, 2014 (U. Chinna Rajesh).**
- **Young Scientist Award** for best oral presentation in **4th International Science Congress**, Pacific University, Udaipur, India, **December 8-9, 2014 (U. Chinna Rajesh).**

- **Best poster award in 19th ISCB International Conference (ISCBC-2013), Recent Advances and Current Trends in Chemical and Biological Sciences**, Mohanlal Sukhadia University, Udaipur, India, **March 2-5, 2013 (U. Chinna Rajesh)**.
- **Best poster award in 21st National Symposium on Catalysis for Sustainable Development (CATSYMP-21)**, CSIR-IICT, Hyderabad, India, **February 11-13, 2013 (U. Chinna Rajesh)**.
- **Best poster award in National Conference on Green and Sustainable Chemistry (NCGSC-2010)**, Chemistry Group, Birla Institute of Technology and Science, Pillani, Rajasthan, **February 19th-21st, 2010 (Sunny Manohar)**.
- **Best poster award in 14th ISCB International Conference (ISCBC-2010), Chemical biology for discovery: Perspectives and challenges**, Central Drug Research Institute, Lucknow, Lucknow, **January 15th-18th, 2010 (Nitin Kumar)**.
- **Best poster award in 13th ISCB International Conference on Interplay of Chemical and Biological Sciences: Impact on Health and Environment**. University of Delhi, Delhi, **26th February – 1st March 2009 (Nitin Kumar)**.

Association with Professional Bodies

1. **Editing:** Edited especial issues of Anti-Cancer Agents in Medicinal Chemistry, Published by Bentham (**2008, 2013**).
Indian Journal of Chemistry (Section B, **2009**).
2. **Reviewing:** Reviewer for ACS, Royal Society, Elsevier, Wiley, and many other international and national research journals.

Committees and Boards Memberships:

Expert-Funding Agencies:

- **Member, Subject Expert Committee, Women Scientist Scheme-A (WOS-A), DST (2016 – 2019).**
- **Member Expert Committee, Technological Intervention for Addressing Societal Needs (TIASN), Department of Science & Technology (DST), New Delhi (2016 – 2019).**
- **UGC-Nominee, SAP Programme, Department of Chemistry, Shivaji University, Kolhapur (2013 - 2018).**
- **UGC-Nominee, SAP Programme, Department of Chemistry, Guru Nanak Dev University, Amritsar (2015 - 2020).**
- **Project Advisory Committee (PAC), International Cooperation Division (ICD), Department of Science & Technology (DST), New Delhi (2014 – 2018).**
- **Member project evaluation committee, Uttarakhand State Council for Science and Technology (UCOST), Dehradun, Utrakhnad (2007 –2014).**

Board of Higher Studies/Advisory Committee/ Committee of Courses:

- **Member, Institutional Advisory Board (IAB)/Departmental Advisory Board (DAB), National Council of Educational Research and Training (NCERT) (2017-**

2020).

- **Visitors Nominee, Academic Council Member**, HNB Garhwal University, Srinagar, Srinagar (Garhwal), UA (2016-2018).
- **Member, Board of Studies**, Amity University, Gurgaon, School of Applied Sciences (2018-2020).
- **Member, Board of Studies (Chemistry)**, HNB Garhwal University, Srinagar, Srinagar (Garhwal), UA (2012-2014; 2014-2017; 2017-2019).
- **Member, Board of Studies (Chemistry)**, SRM University, Sonepat, (2017 - 2019).
- **Member, Board of Studies (Chemistry)**, Gautam Budha University, Noida (2016 - 2018).
- **Member, Board of Studies (Chemistry)**, MJP Rohilkhand University, Bareilly (2013-2015).
- **Member, Board of Studies**, Amity University, School of Natural Sciences, Gurgaon (2014-2016).
- **Member, Board of Studies**, Amity University, Centre for Phytomedicine and Phytochemistry, Noida (2014-2016).
- **Member Board of Studies**, Uttarakhand Open University, Chemistry, Haldwani.
- **Member, Doctoral Committee**, Jamia Hamdard University, Department of Pharmaceutical Chemistry, Delhi (2013 - 2016).
- **Member, Board of Studies**, Kumaun University, Department of Chemistry, Nainital, UA (2012-2015).
- **Member, Faculty of Technology**, Kumaun University, Department of Chemistry, Nainital, UA (2016-2019).
- **Member Research Advisory Committee**, Department of Chemistry, HNB Garhwal University, Srinagar, Srinagar (Garhwal), UA (2005-2009).
- **Member Advisory Committee**, University Science Instrumentation Center-Central Instrument Facility (USIC-CIF), University of Delhi, (2010 - 2015).
- **Member Committee of Courses**, University of Delhi, Delhi, (March 2010 - April 2015).
- **Co-ordinator, CPDHE Refresher Course**, University of Delhi, (February 15th to March 9, 2010).
- **Member, Project Review Committee**, Department of Scientific and Industrial Research (DSIR), Delhi.
- **Jury Member** 3rd National Level Exhibition and Project Competition (NLEPC)-2013 under INSPIRE Awards component of Department of Science and Technology, **October 2013**.
- **Jury Member** 2nd National Level Exhibition and Project Competition (NLEPC)-2013 under INSPIRE Awards component of Department of Science and Technology, **2012**.
- **Member young scientist award committee**, Uttarakhand State Council for Science and Technology (UCOST), Dehradun, Uttaranchal (2007 - 2014).

Member Governing Body/University Nominee:

- **Member Governing Body**, Hansraj College, University of Delhi, Delhi, (2010-2011; 2011-2012).
- **Member Governing Body**, Swami Shraddhanand College, University of Delhi, Delhi, (2011-2013).
- **University nominee, Governing Body**, Shaheed Rajguru College, University of Delhi, Delhi, (2010-2011; 2011-2012).
- **University nominee, Governing Body**, Ramjus College, University of Delhi, Delhi, (2012 - Till Date).
- **University nominee**, Higher Secondary School, Maurice Nagar, University of Delhi, Delhi, (2010-2011; 2011-2012).
- **University nominee, SGTB Khalsa Colleges**, University of Delhi, Delhi, (July 2013 to 2017).
- **University nominee, Aditya Mahavidyalaya**, University of Delhi, Delhi, (July 2014 to 2017).
- **University nominee, Sir Arvindo College**, University of Delhi, Delhi, (2017).

Development of Teaching Materials/Review of Text Books:

- Member, Development of In-service Teacher Training Material through Interactive Audio Visual Presentation in Chemistry for Hr. Sec. Stage (Chemistry, NCERT), November 24-28, 2008.
- Member, Development of need based package for the orientation of master trainers in Science for Hr. Sec. Stage (Chemistry, NCERT), December 26-29, 2011
- Member, Quick Review of NCERT Textbooks for Higher Secondary Stage (Chemistry-Practical), August-September 2007.
- Member, Quick Review of NCERT Textbooks for Higher Secondary Stage (Chemistry), August-September 2006.
- Member, Quick Review of NCERT Textbooks for Secondary Stage (Science and Technology), October 2004.
- Member curriculum development committee for BSc courses, M. Tech in Chemical Synthesis and Process Technologies, University of Delhi.
- Member, Bureau of Indian Standards, New Delhi.
- Member, various task force committees constituted by Vice-Chancellor, University of Delhi.

University Elections:

- Chief Election officer, DUSU Election, University of Delhi, **2014 - 2016**.
- Chief Returning officer, DUSU Election, University of Delhi, **2012 and 2013**.
- Returning officer, DUSU Election, University of Delhi, **2011-2012**.

Conferences and Symposia:

- **Joint Secretary**, Trends in Drug Discovery and Development, International conference held at University of Delhi, 2010.
- **Joint Secretary**, 13th ISCB International conference held at University of Delhi, 2009.
- **Session Chairman**, International Conference on Chemistry and Materials: Prospects & Perspectives” **Babasaheb Bhimrao Ambedkar University** (A Central University),

Lucknow, **14-16 December, 2012.**

- **Session Chairman**, 4th NIPER (Rbl)-CDRI Symposium on Medicinal Chemistry and Pharmaceutical Sciences, CDRI, Lucknow, **February 23-25, 2012**
- **Session Chairman**, National Seminar on Recent Trends in Chemical and Biological Sciences" Holker Science College, Indore, **January 13-15, 2012.**
- **Session Chairman**, 48th Annual Convention of Chemist and Celebration of the International Year of Chemistry, Allahabad University, Allahabad, **December 3-7, 2011.**
- **Session Chairman**, T3D International Symposium on Trends in Drug Discovery and Development, University of Delhi, Delhi, **January 5th-8th 2010.**

Other Activities

MEMBER INTERNATIONAL EDITORIAL BOARD:

➤ Associate Editor

- ❖ **RSC Advances 2016 – 2019.**
- ❖ **Journal of the Indian Chemical Society (Organic Section) 2011 – 2013.**
- ❖ **International Journal of Drug Discovery, Published by Bioinfo Publications, <http://www.bioinfo.in/contents.php?id=24&page=editorial> (2010-Till Date).**

➤ Member International Editorial Board

- ❖ Anti-Cancer Agents in Medicinal Chemistry Published by Bentham, <http://www.benthamscience.com/cmca/EBM.htm> (2007-Till Date) **Impact Factor 3.14.**
- ❖ Marine Drugs <http://www.mdpi.org/marinedrugs/editors.htm> [2005-2015] **Impact Factor 3.978.**
- ❖ Clinical Cancer Drugs, Published by Bentham, <http://benthamscience.com/ccand/EBM.htm> (2012-Till Date).
- ❖ Research and Reports in Medicinal Chemistry, Published by Dove Medical Press, <http://www.dovepress.com/honorary-editorial-board-research-and-reports-in-medicinal-chemistry-edboard133> (2011-Till Date).
- ❖ Journal of Pharmaceutics, <http://www.hindawi.com/39402737/> (2012-Till Date).
- ❖ The Open Catalysis Journal, Published by Bentham, <http://www.benthamscience.com/open/tocatj/EBM.htm> (2009-Till Date).
- ❖ International Journal of Biological and Chemical Sciences (2007-Till Date).
- ❖ Chemistry and Biology Interface, Published by ISCB (2011-Till Date).
- ❖ Indian Journal of Heterocyclic Chemistry (2013-Till Date)
- ❖ ARKIVOC http://www.arkatusa.org/ark/ARKIVOC/arkivoc_referees

Guest Editor for Special Journal Issues:

- Anti-Cancer Agents in Medicinal Chemistry (**Impact Factor 3.14; 2013**); <http://benthamscience.com/cmca/Special-Issues.htm>).
- Anti-Cancer Agents in Medicinal Chemistry (**Impact Factor 3.14; Two issues, 2008**).
- Indian Journal of Chemistry-Section B (**Impact Factor 0.66; 2009**).

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