

CURRICULUM VITAE

Mukesh Chandra Joshi (Ph.D.)

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OBJECTIVES: Establish myself in the field of Academy/Research (Organic/Medicinal chemistry) and contribute in the development of the organization.

PRESENT STATUS:

- **TEACHING Undergraduate (H)** as an **ASSISTANT PROFESSOR** in Department of Chemistry, Motilal Nehru College, South Campus, University of Delhi, India since, **Feb 2013**.

RESEARCH ACTIVITY

- DST Fast Track **YOUNG SCIENTIST**, 2013 (Sanctioned) Department of Science and Technology, Ministry of Science, Delhi, India. Project cost 2760000.00 (INR).

PREVIOUS RESEARCH EXPERIENCE

- **POSTDOCTORAL RESEARCHER 2010 – 2011**, University of Cape Town, South Africa. (Research advisor: Prof. Timothy J. Egan and Prof. Roger Hunter).
- **RESEARCH SCIENTIST 2009 – 2010**, Sphaera Pharma Drug & Discovery Pvt. Ltd., Manesar, Haryana, India.
- **RESEARCH SCIENTIST 2008 – 2009**, ChemBioTek A TCG Life sciences Ltd. Kolkata, India.

ACADEMIC QUALIFICATION

- **Ph.D. 2003–2007**, Department of Chemistry, University of Delhi, India. Thesis entitled “*Synthesis and Biological Evaluation of Cyclic and Acyclic Eneidyne*”. (Research Advisor: Prof. Diwan S. Rawat)
- **M.Sc. 2000–2002**, ORGANIC CHEMISTRY, Kumaun University Nainital, Uttarakhand, India (*Second Position in the University*).
- **B.Sc. 1997–2000**, CHEMISTRY, with Zoology, Botany, Kumaun University Nainital, UK, India.

AWARDS OF MERRIT

- **2013**, Selected one of international bioorganic chemists by ESPCA to attend conference at University of Araraquara, Sao Paulo, **Brazil**.

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- **2011**, Selected one of international bioorganic chemists by ESPCA to attend conference at University of Campinas, Sao Paulo, **Brazil** (Meeting with Nobel Laureates).
- **2011**, National Research Foundation Fellowship, South Africa.
- **2010**, South African Malarial Initiative (SAMI) Fellowship, South Africa.
- **2002**, *IInd RANKED*, M.Sc., Kumaun University Nainital, Uttarakhand, India.

RESEARCH & OTHER EXPERTIES

- Drug discovery program in chemistry, Medicinal chemistry, Bioorganic chemistry, Natural Product, and Ethanochemistry.
- Synthesis of target based anticancer (major), anti-malarial (major), anti-Parkinson's, anti-viral and anti-microbial agents, and other heterocyclic compounds.
- Lead optimization on the basis of SAR study.
- Natural products extraction, isolation, purification and optimization from natural sources.
- Supervised graduate/post graduate students, including a dozen research chemists in industry, and 10 graduate/postgraduate students during Ph.D., Industry and Postdoctoral tenure.
- Reviewed journals: *Current Medicinal Chemistry*, *European Journal of Medicinal Chemistry*, *Natural Product Research*, *African Journal of Pharmacy and Pharmacology*, *Journal of Medicinal Plant Research*, *Journal of the Serbian Chemical Society* & many journals of *Science alert*.

RESEARCH SKILLS

- **Purification Techniques:** column chromatography, combiflash, biotage & prep-TLC.
- **Characterization Techniques:** NMR, Mass, IR, UV, HPLC and DSC etc.
- **In-Silico Science Software:** ChemDraw, ISIS Draw and ChemSketch.
- **Computer Skills:** Operating Windos, SciFinder, Balleinstine, ChemSpider and Scopus for literature.

PUBLICATIONS

1. **M. C. Joshi**, K. Kumar, V. Kumar, Potent Phosphatidylinositol 3-Kinase inhibitors and their biology. *Curr. Drug Discv. Tech.* **2014**, 11(2), 113-126.
2. **M. C. Joshi**, K. J. Wicht, D. Taylor, R. Hunter, P. J. Smith, T. J. Egan, *In vitro* antimalarial activity, β -haematin inhibition and structure–activity relationships in a series of quinoline triazoles. *Eur. J. Med. Chem.* **2013**, 69, 338-347.
3. S. Waldia, N. Kaushik, A. K. Verma, B. C. Joshi, U. Pathak, **M. C. Joshi**, Antibacterial and cytotoxic activities of diterpenoids isolated from indian *Plectranthus coesta*. *Rec. Nat. Prod.* **2013**, 7(4), 355-358.

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4. **M. C. Joshi**, Synthesis and characterization of novel acyclic enediynes. *Synth. Commun.* **2013**, 43, 2246–2255.
5. **M. C. Joshi**, D. S. Rawat, Recent developments in enediyne chemistry. *Chem. Biodiver.* **2012**, 9(3), 459-498.
6. V. Zhishiri, **M. C. Joshi**, R. Hunter, K. Chibale, P. J. Smith, R. L. Summers, R. E. Martin, T. J. Egan, Quinoline antimalarials containing a dibemethin group are active against chloroquine resistant. Falciparum and inhibit chloroquine transport via PfCRT. *J. Med. Chem.* **2011**, 54(19), 6956-6968.
7. **M. C. Joshi**, Synthesis and Characterization of Novel Acyclic Assymmetrical and Symmetrical Enediyne-Triazole Conjugates. *Arkivoc* **2011**, x, 139-147.
8. M. Sharma, **M. C. Joshi**, V. Kumar, S. V. Malhotra, D. S Rawat, Synthesis and anticancer activity of 13-membered cyclic enediynes. *Arch. Pharm. Chem. Life Sci.* **2011**, 344, 564-571.
9. S. Waldia, B. C. Joshi, U. Pathak, **M. C Joshi**, Genus Plectranthus in India and its chemistry. *Chem. Biodiver.* **2011**, 8, 244-252.
10. **M. C. Joshi**, G. Bisht, D. S. Rawat, Syntheses and antibacterial activity of phendioxo substituted cyclic enediynes. *Bioorg. Med. Chem. Let.* **2007**, 17(11), 3226-3230.
11. D. S. Rawat, **M. C. Joshi**, P. Joshi, H. Atheaya, Marine peptides and related compounds in clinical trial. *Anti-Can. Age.-Med. Chem.* **2006**, 6, 33-40.
12. **M. C. Joshi**, P. Joshi, D. S. Rawat, Microwave assisted synthesis of symmetrically and asymmetrically substituted acyclic enediynes. *Arkivoc* **2006**, xvi, 65-74.
13. **M. C. Joshi**, R. Hunter, K. Chibale, P. J. Smith, R. L. Summers, T. J. Egan, Lipophilic pyridoquinoline antimalarials are active against chloroquine resistant. *J. Med. Chem. (Communication)*.
14. Y. C. Joshi, V. Chopra, **M. C. Joshi**, R. K. Joshi, V. K. Atri. *Cordyceps sinensis* a “Summer Plant & Winter Insect”: Sportsmen’s Energy Package, Medicinal Importance and Phytochemical Constituents. *Rev Andal Med Deporte (Communicated)*
15. **M. C. Joshi**, D. S Rawat, Synthesis, characterization of novel phenoxy-substituted enediyne-triazole conjugates and DFT studies. Submitted. *Synthet. commun. (Under communication)*.
16. **M. C. Joshi**, D. Taylor, R. Hunter, K. Chibale, P. J. Smith, L. Weisner, T. J. Egan, Quinoline antimalarials containing a dibemethin group are active against chloroquine resistant. Falciparum and inhibit chloroquine transport via PfCRT. *Biochem. (Under communication)*.

BOOK/CHAPTERS/CONTENT WRITER

1. CHAPTERS:

Content writer as Co-author with Prof. Diwan S. Rawat: 17 Modules (M11-M27) of Organic Chemistry (P05): e-PG Pathsala Project by Union Grant Commission (UGC) under the National

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Mission on Education through Information and Communication and Technology (NMEICT) mission of Ministry of Human Resource and Development (MHRD), Government of India. [<http://epgp.inflibnet.ac.in/ahl.php?csrno=5> followed by CHEMISTRY: Paper Name (P05. Organic Chemistry-II, Reaction Mechanism-1)]: Module Name (M11-M27)

2. BOOK:

Pharmaceutical Chemistry: *Communicated*

MEMBERSHIP OF ACADEMIC BODIES

- Indian Science Congress Association (ISCA), India, Life Member.
- South African Chemical Institute (SACI), South Africa, 2010 – 2011.

TALKS/ORAL PRESENTATION

1. **M. C. Joshi**, D. S. Rawat, Synthesis, characterization, antimicrobial activity & thermal reactivity of cyclic/acyclic enediynes. 3rd JNOST, G.N.D. University, Amritsar, India, Nov 15-17, **2007**.
2. D. S. Rawat, **M. C. Joshi**, P. Joshi, Synthesis, characterization and thermal reactivity of cyclic/acyclic enediynes. 93rd Indian Science Congress A.N.G. Ranga Agricultural University Rajendranagar, Hyderabad (A.P.), India, Jan 03-07, **2006**.

POSTER PRESENTATION, NATIONAL/INTERNATIONAL SEMINARS/CONFERENCES:

1. **M. C. Joshi**, Syntheses and biological evaluation of enediyne analogues. Natural product, medicinal chemistry and organic synthesis integrated Solutions for tomorrow's world, Sao Paulo advanced school, University of Araraquara, Sao Paulo, Brazil, Jun 30 - July 5, **2013**.
2. **M. C. Joshi**, T. J. Egan, R. Hunter, Syntheses of lipophilic-chloroquine antimalarials active against chloroquine resistant parasites. Natural product, medicinal chemistry and organic synthesis integrated Solutions for tomorrow's world, with the collaboration of International Year of Chemistry, Sao Paulo advanced school, University of Campinas, Sao Paulo, Brazil, Aug 14-18, **2011**.
3. **M. C. Joshi**, V. Zishiri, R. Hunter, T. J. Egan, Synthesis of less lipophilic chloroquine analogues active against chloroquine resistant parasites. 40TH South African Chemical Institute (SACI) National Convention and Federation of African Chemical Societies (FACS) Meeting, University of Witwatersrand, Department of Chemistry, Johannesburg, South Africa, Jan 16-21, **2011**.
4. **M. C. Joshi**, P. Joshi, H. Atheaya, R. Mangain, M. Sharma, N. Aggarwal, S. Pahwa, N. Roy, D. S. Rawat, "Synthesis and Biological Evaluation of Natural Product Analouges" 9th CRSI National Symposium in Chemistry, Dept. of Chemistry, University of Delhi, Delhi-07, India. Feb 01-04, **2007**.

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5. *M. C. Joshi*, D. S. Rawat, "Synthesis, Characterization and Thermal Reactivity of Cyclic/Acyclic Eneidyne" 10th International Conference of ISCB on Drug Discovery: Perspective and Challenges, CDRI, Lucknow, U.P., India, Feb 24-27, 2006.

ATTENDED NATIONAL/INTERNATIONAL SEMINARS/CONFERENCES:

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REFERENCES:

Dr. Timothy. J. Egan (Ph.D.)
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