

# Curriculum Vitae

## Dr. Rashmi Pundeer

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Haryana-135002.

### Education

**Ph. D.:** 2004, “Reagents in Organic Synthesis: Application of Iodine (III) reagents with Special Emphasis on the synthesis of Heterocyclic Compounds” Kurukshetra University, Kurukshetra

**M.Sc.:** 1999, Specialization: Organic Chemistry; M. L. N. College (affiliated to Kurukshetra University), Yamunanagar, Haryana

**B.Sc.:** 1997, D. A. V. College for Girls, Yamunanagar (affiliated to Kurukshetra University), Haryana

## Awards/Recognitions

- 2000: University Research Fellowship (URS): Awarded by Kurukshetra University for Ph.D.
- 2001: Junior Research Fellowship (JRF): In Defence, Research and Development Organization (DRDO), (Ministry of Defence, Government of India) project sanctioned to Dr. Om Prakash
- 2001: Qualified National Eligibility Test (NET) conducted by Council of Scientific and Industrial Research (CSIR) and University Grants Commission (UGC), India
- 2017: Summer Faculty Research Fellow (SFRF) in the Laboratory of Dr. Shivajirao Gholap, Department of Chemistry, IIT Delhi from May 16-June 30, 2017 from IIT, Delhi

## Teaching Experience

Associate Professor (Feb 2021- Continuing) : IG University, Meerpur, India.

Associate Professor (on deputation) Nov 2020- Feb 2021) : IG University, Meerpur, India.

Assistant Professor (Aug 2004- Nov 2020) : Kurukshetra University, Kurukshetra

## Courses Taught

Heterocyclic chemistry including azoles, purines, pyrimidines, indoles, quinolines, isoquinolines, flavonoids, porphyrins, steroids, alkaloids, carbohydrates, terpenoids, disconnection approach, pericyclic, green chemistry

Pharmacokinetics (ADME), pharmacodynamics including receptors, toxicology, drug design including prodrugs, hard and soft drugs, combinatorial chemistry, biosynthesis of plant secondary metabolites.

## Student Resources

Prepared electronic lecture notes/videos for various courses

Uploaded the lecture notes/videos on the e-portal of IGU.

## Research Interests

- Development of simple synthetic strategies for widely used organic compounds through the intermediacy of versatile, ecofriendly and readily available oxidizing reagents, the hypervalent iodine(III) reagents particularly, (diacetoxyiodo)benzene (DIB), [hydroxyl(tosyloxy)iodo]benzene (HTIB) and (dichloroiodo)benzene
- Exploring dibromo compounds and towards the synthesis of nitrogen containing heterocyclic compounds particularly five and six membered ones of potential medicinal interest.

## Doctoral Research Guidance

- Ms. Sushma Singh (2014, Degree Awarded by Kurukshetra University, Kurukshetra)
- Ms. Vijay Kiran (2013, Degree Awarded by Kurukshetra University, Kurukshetra)
- Dr. Pooja Ranjan (2009, Degree Awarded by Kurukshetra University, Kurukshetra)

## Associateship/Membership of Professional Bodies

**Life member** of Indian Science Congress Association (ISCA), Indian Chemical Society

## Workshops/Short term courses Organized/Attended

### Organized

- University seminar on “Women Innovators in STEM”, Feb11, 2020, organized by Women in STEM Forum in collaboration with KUTIC (RUSA 2.0) as Member of Organizing Committee.
- National Seminar on “Gender Equity in Science and Technology for Sustainable Development” Feb 21, 2019, organized by Women’s Studies Research Centre KUK in collaboration with Vigyan Bharati Haryana as Co-convenor.
- SERB-DST sponsored workshop on “Opportunities and Challenges for Women in STEM”, Jan 24-25, 2018, organized by Women Faculty of Science, Life Sciences, Engineering and Technology, Kurukshetra University, Kurukshetra as Convener of Welcome and reception Committee.
- 51<sup>st</sup> Annual Convention Of Chemists Organized By Indian Chemical Society, Kolkata and hosted by the Department Of Chemistry, Kurukshetra University, Kurukshetra, Dec 09-12, 2014 as member of organizing committee.
- National Conference on global challenges: New Frontiers in Chemical Sciences, in Department of Chemistry, Kurukshetra University, Kurukshetra in Sept 22-23, 2012 as as member of organizing committee.
  - National Symposium On Modern Trends In Chemical Sciences, in Department of Chemistry, Kurukshetra University, Kurukshetra in Oct 06-07, 2006 as member of organizing committee

## Attended

- Lecture “Rational Approaches in Drug Design and Development” under International Lecture Series entitled “*Multifaceted Chemistry: An ever-evolving domain of science*” held on 20/03/2021 through online mode organized by Department of Chemistry Deshbandhu College (University of Delhi), Kalkaji, New Delhi
- One Week National e-Workshop on “Hands-On Training & Practices in Computational Chemistry” November 23-27, 2020 Organized by Department of Chemistry, J. C. Bose University of Science and Technology, YMCA, Faridabad.
- National E- workshop on - “Modern Analytical Techniques for Material Characterization” on 9<sup>th</sup> to 12<sup>th</sup> 2020 organized by the Department of Chemistry, GITAM School of Science, Bengaluru.
- Webinar Series on “Blend of Physics & Materials” on Oct 22, 2020 organized by Department of Physics, School of Basic Sciences, Manipal University, Jaipur
- Webinar on “Virtual Labs: Effective Tool for Teaching and Learning” on July 10, 2020 organized by Maharshi Karve Stree Shikshan Samstha’s Cummins College of Engineering for Women, Nagpur in association with AICTE & Virtual Lab, Centre for System Design, NITK, SURATHKAL.
- Four day International Webinar Bio Conclave “An Intellectual war against the COVID-19 Pandemic” June 19-22, 2020 organized by Department of Pharmaceutical Biotechnology, Hindu College of Pharmacy, Amravathi Road, Guntur, Andhra Pradesh, India.
- Webinar on “Future of Education post Covid” On 18th Jun, 2020 by Prof Rajendra P Gupta, Former member of the National Education Policy Committee, Govt of India.
- One week online FDP on “Spectroscopic and analytical techniques: Applications” May 25-29, 2020 organized by J. C. Bose University of Science and Technology, YMCA, Faridabad in collaboration with Guru Angad Dev Teaching learning center of MHRD.
- Panel discussion on a “New normal for pharmacy field in covid-19 pandemic” May 17, 2020 organized by Amity institute of pharmacy, health & allied sciences domain, Amity University, Noida
- International webinar on “Prospective of interdisciplinary research in science and technology in the present scenario” May15-16, 2020 organized by Chaudhary Charan Singh University, Meerut.
- Webinar on How to access Taylor & Francis journals” May 14, 2020 organized by Taylor & Francis group.
- Webinar Lecture series on “Catalytic Valorization of Biorefinery Byproducts” 11 May, 2020, organized by Amity International Society for Natural Products, Health & Allied Sciences Domain, Amity University, Uttar Pradesh, Noida.

- IPGA conclave 2020: Next generation pharmacist on the topic “Digitalization, future jobs, regulatory mechanisms & research directions”, May 10, 2020 organized by Amity University, Noida and Indian pharmacy graduates’ association, Delhi.
- One day webinar on “Enhancing research effectiveness using scopus, sciencedirect and Mendeley” May 01, 2020 organized by Faculty Development Centre, Kurukshetra University, Kurukshetra in collaboration with Elsevier.
- Interdisciplinary Capacity Building Programme on “Human Rights: Contemporary Challenges and Future Prospects”, Oct 10-16, 2019, organized by Faculty Development Centre, Kurukshetra University, Kurukshetra
- National Science Teachers Congress (5<sup>th</sup> India International Science Festival), Nov 07-08, 2019, Biswa Bangla Convention Centre, Kolkata, West Bengal organized by Vigyan Prasar (DST), NCERT/CBSE (MHRD) and Vijnana Bharati.
- National Camp of Vidyarthi Vigyan Manthan as Haryana State Coordinator in CSIR-IICT, Hyderabad on May18-19, 2019.
- National Science Teachers Congress (4<sup>th</sup> India International Science Festival), October 6-7, 2018, Indira Gandhi Pratishthan, Lucknow organized by Vigyan Prasar (DST), NCERT/CBSE (MHRD) and Vijnana Bharati.
- National workshop on “Single crystal structure determination of small molecules”, November 20-21, 2018, Department of SAIF/CIL, Panjab University, Chandigarh.
- “One Day Awareness Workshop on Intellectual Property Rights”, Jan 19, 2019, organized by IPR Cell KUK, Patent Office Government of India, New Delhi and ASSOCHAM at Kurukshetra University, Kurukshetra.
- National Seminar on “Empowering Women through Legal Awareness” March 28-29, 2019, organized by Women’s Studies Research Centre KUK in collaboration with ICSSR North Western Regional Centre Chandigarh.
- Programme on “ Technical Session for Capacity Building on EPO Tools Practices & Procedures” co-organized by European Business Technology Centre (EBTC), the European Patent office (EPO) and IPFC, Chandigarh, Jan 19, 2018, Chandigarh.
- Workshop on “IP Awareness Programme on National IPR Policy 2016” organized by ASSOCHAM Kurukshetra University and IP Office at Kurukshetra University, Kurukshetra, Jan 11, 2018.
- National Workshop On Ancient Indian Scientific Heritage(AISH-2014) Organized By Department of A.I.H., Cul. & Arch., KUK on November 11, 2014.
- Workshop on “Save the girl child” Aug 23, 2012, organized by Women’s Studies Research Centre KUK.
- Professor Ram Chand Paul National Symposium on “Emerging Trends in Chemistry” in Department of Chemistry & Centre of Advanced Studies in Chemistry, Punjab University, Chandigarh, Feb 11-12, 2011.

- National Conference on “Awareness in modern instrumental techniques” in Department of Chemistry, Kurukshetra University, Kurukshetra in Feb 29- March 01, 2008.

### **Some Administrative/Social Contributions**

- Haryana State Coordinator of Vidyarthi Vigyan Manthan (VVM), organized by VIBHA in association with Vigyan Prasar, DST and NCERT since 2018.
  - Attended National Camp of VidyarthiVigyanManthan 2018, May 18-19, 2019 organized by VIBHA, VigyanPrasar and NCERT at CSIR-IICT Hyderabad
  - organized state level camps in JCBUST, YMCA and DCRUST Murthal in Jan 2020
- Treasurer, Chemical Society, Kurukshetra University
- Executive member, Kurukshetra University Teachers’ Association

### **Curriculum Development**

- Designed curriculum of M.Sc. Chemistry ( pharmaceutical specialization)

### **Reviewership of Journals (partial list)**

- Indian Journal of Chemistry (NISCAIR)
- Journal of Heterocyclic Chemisty (Wiley)
- Drug Research (Thieme)
- Indian Journal of Chemistry (NISCAIR)
- Current bioactive compounds (Bentham)
- Letters in Organic Chemistry (Bentham)
- Synthetic communications (Taylor &Francis)
- ChemistrySelect (Wiley-VCH)

## List of Research Publications

Details of the publications/citations are available on [Google Scholar](#)

- Vishwas Chaudhri, Richa Prakash, **Rashmi Pundeer**. “Advances in the Arena of 1-(4-hydroxy-6-methyl-2H-pyran-2-on-3-oyl)-3-arylpropenone”. *Lett. Org. Chem.* (accepted) (Bentham Science)
- Om Prakash, Pooja Ranjan, **Rashmi Pundeer**. “Hypervalent Iodine(III) mediated monochlorination of pyrazolyl chalcone analogs”. *Ind. J. Het. Chem.* (in press).(Connect Journals)
- Vijay Kiran, Radhika Joshi, Rashmi Pundeer. “ $\alpha,\alpha$ -Dibromoketone precursors in the synthesis of some new thiazole derivatives: thiazol-2-yl hydrazonobutanoates, thiazol-2-yl pyrazole-4-carboxylates and acids”. *J. Het. Chem.* **2020**, 57, 2173-2187. (Wiley-Blackwell)
- Om Prakash, Anita Batra, Rashmi Pundeer. “HTIB mediated synthesis of some new 2,4-disubstituted thiazole derivatives using modified HTS *via in situ* generated tosyloxy ketones”, *Ind. J. Chem.* **2020**, 59B(2), 247-251. (CSIR-NISCAIR)
- Richa Prakash, Nisha Sharma, Loveena Arora, Ranjana Aggarwal, Jitander K. Kapoor, **Rashmi Pundeer**, Om Prakash. “ $\alpha,\alpha$ -Dibromoketones as Excellent Precursors for the Synthesis of Heterocyclic Compounds”, *Ind. J. Het. Chem.***2019**, 29(2), 99-115. (Connect Journals)
- Sushma Singh, RichaPrakash, NehaDua, Chetan Sharma, **Rashmi Pundeer**. “Some new pyrazolylpyrazolones and cyanopyrazolyl acrylates: Design, synthesis and biological evaluation”, *ChemistrySelect*, **2019**, 4, 6849-6853. (Wiley-VCH)
- LoveenaArora, RichaPrakash, **Rashmi Pundeer**. Developments in the synthesis of  $\alpha,\alpha$ -dibromoacetophenones and related compounds”, *Synth. Commun.***2019**, 49(12), 1486-150. (Taylor & Francis)
- **Rashmi Pundeer**, PoojaRanjan, RichaPrakash, Radhika Joshi. “Synthesis of novel 6-(1H-pyrazol-4-yl)-[1,2,4]triazolo[3,4-b][1,3,4]thiadiazoles as potential antimicrobial agents”, *Lett. Org. Chem.* **2018**, 15(2), 92-98. (Bentham Science)
- Om Prakash, Robert M Moriarty, VishwasChaudhri, KamaljeetPannu, **Rashmi Pundeer**. “First report of the isolation of novel oxiranes in the I(III) mediated oxidation of 1-(4-nitrophenyl)-3-arylprop-2-en-1-ones”, *Ind. J. Het. Chem.***2017**, 27(4), 327-328. (Connect Journals)
- Om Prakash, VishwasKhurana, **Rashmi Pundeer**. “Regioselective synthesis of some new 5-(4-aryl-2-oxobut-3-enyl)-3-methyl-1-(6-substituted benzothiazol-2-yl)pyrazoles from aryloct-7-en-2,4,6-triones”, *Ind. J. Het. Chem.***2016**, 26, 133-139. (Connect Journals)
- **Rashmi Pundeer** and Vijaykiran. “Organoiodine(III) mediated one-pot synthesis of several new coumarinyl-triazolo-triazines”, *Org. Chem. Ind. J.***2016**, 12(5), 106. (Trade Science Inc.)

- **Rashmi Pundeer** and Vijaykiran. “Green and expeditious synthesis of some 2-amino/arylamino-4-(1-naphthyl)thiazole derivatives using [hydroxyl(tosyloxy)iodo]benzene”, *Ind. J. Het. Chem.***2016**, 25, 311-315. (Connect Journals)
- **Rashmi Pundeer** and Sushma. “Hypervalentiodine(III) reagent in the solid-state synthesis of 3,4-dihydropyrimidin-2(1H)-ones”, *Ind. J. Chem.* **2015**, 54B, 1275-1279. (CSIR-NISCAIR)
- Sushma, Vijaykiran, Chetan Sharma, K. R. Aneja, Om Prakash and **Rashmi Pundeer**. “A facile synthesis of some new 1-benzothiazolyl-3-aryl/hetaryl-5-(3-aryl-1-phenyl-4-pyrazolyl) pyrazoles and their antimicrobial activity”, *J. Het. Chem.* **2015**, 52, 1817-1822. (Wiley-Blackwell)
- **Rashmi Pundeer**, Sushma, Vijaykiran, Chetan Sharma, K. R. Aneja and Om Prakash, “Synthesis and evaluation of antibacterial and antifungal activities of new (Z)-3-bromo-4-(1,3-diaryl-1H-pyrazol-4-yl)but-3-en-2-ones and 4-(3-methyl-1-phenyl-1H-pyrazol-5-yl)-1,3-diaryl-1H-pyrazoles”, *Med. Chem. Res.* **2013**, 22, 4715-4726. (Springer Science + Business Media)
- **Rashmi Pundeer**, Sushma, Vijaykiran, Chetan Sharma, K. R. Aneja. “ $\alpha,\alpha$ -dibromoacetophenones in the convenient synthesis of some thiazolo[3,2-b]-1,2,4-triazoles and their antimicrobial activity: Isolation of new intermediates”, *Int. J. Adv. Res. Pharma. BioSci.***2013**, 3, 102-111.
- **Rashmi Pundeer**, Vijaykiran, RichaPrakash, Sushma,Subhash C. Bhatia, Chetan Sharma and Kamal R. Aneja. “ $\alpha,\alpha$ -Dibromoacetophenone mediated synthesis of some new 7H-7-alkoxy-3-alkyl/phenyl-6-aryl-s-triazolo[3,4-b][1,3,4]thiadiazines and their antimicrobial evaluation”, *Med.Chem.Res.***2012**, 21, 4043-4052. (Springer Science + Business Media)
- **Rashmi Pundeer**, Vijaykiran, Sushma,Om Prakash, Subhash C. Bhatia. “An Efficient Synthesis of N-(1-arylethylidene)-N’-(4-arylthiazol-2-yl)-hydrazones from  $\alpha,\alpha$ -Dibromoacetophenones and N-(1-arylethylidene)thiosemicarbazones”, *Der PharmaChemica* **2011**, 3, 109-114. (Scholars Research Library)
- Om Prakash, **Rashmi Pundeer**,PoojaRanjan, KamaljeetPannu, YogitaDhingra and K. R. Aneja. “Synthesis and Antibacterial Activity of 1,3-diaryl-4-cyanopyrazoles”, *Ind. J. Chem.* **2009**,48B, 563-568. (CSIR-NISCAIR)
- **Rashmi Pundeer**,PoojaRanjan, KamaljeetPannu and Om Prakash. “One-Pot Synthesis of some New Semicarbazone, Thiosemicarbazone, and hydrazone derivatives of 1-Phenyl-3-Arylpyrazole-4-Carboxaldehyde from AcetophenonePhenylhydrazones Using Vilsmeier-Haack Reagent”, *Synth. Commun.***2009**,39, 316-324. (Taylor & Francis)
- **Rashmi Pundeer**,VishwasChaudhri, MayankKinger and Om Prakash. “Regeneration of carbonyl group in the hypervalent iodine oxidation of carbonyl derivatives of dehydroacetic acid and its analogues”, *Indian J. Chem.*,**2007**, 46B, 834-837. (CSIR-NISCAIR)



- Om Prakash, HarpreetKaur, Vijay Sharma, VikasBhardwaj and **Rashmi Pundeer**. “A novel and Facile Iodine (III)-Mediated Approach for C(5)-Acetoxylation of 6-Hydroxyflavone and 6-hydroxyflavanones”, *Tetrahedron Lett.* **2004**,*45*, 9065-9067. (Elsevier)
- RanjanaAggarwal, **Rashmi Pundeer**, Vinod Kumar, VishwasChaudhri Shiv P. Singh and Om Prakash. “A Facile Synthesis of Thiazole-2(3H)-thiones Through [Hydroxy(tosyloxy)iodo]benzene”, *Synth. Commun.* **2004**,*34*, 2659-2664. (Taylor & Francis)
- Om Prakash, **Rashmi Pundeer** and VishwasChaudhri. “Organoiodine(III) Mediated One-Pot Synthesis of N-substituted 2-Aminothiazoles”, *J. Indian Chem. Soc.*, **2004**, *81*, 786-788. (ICS)
- Om Prakash, HarpreetKaur, **Rashmi Pundeer**, R. S. Dhillon and Shiv P. Singh. “An Improved Iodine (III) Method for Thiocyanation of 2-Arylindan-1,3-diones, Phenols and Anilines”, *Synth. Commun.* **2003**,*33*, 4037-4042. (Taylor & Francis).
- Om Prakash, **Rashmi Pundeer** and HarpreetKaur. “A New and Facile Iodine(III)- Mediated Approach for the RegioselectiveAlkoxylation of 2,5-Dihydroxyacetophenone”, *Synthesis*, **2003**, 2768-2770. (Thieme Medical).