



<b>Name:</b>	<b>Dr. Yamini Thakur</b>
<b>Designation:</b>	<b>Assistant Professor</b>
<b>Academic Qualification:</b>	<b>Ph.D., M.Phil., CSIR UGC NET, CG-SET. M.Sc.</b>
<b>Subject:</b>	<b>Chemistry</b>
<b>Specialisation:</b>	<b>Chemistry</b>
<b>Research Areas:</b>	<b>Organic and Bioinorganic Chemistry</b>
<b>Teaching Experience:</b>	<b>TOTAL: More than 5.8 years</b>
• Under-graduate-	<b>5.0 yrs</b>
• Post-graduate-	<b>5.8 yrs</b>
• Research-	<b>10.0 yrs</b>
<b>Research Publications:</b>	
• Research Papers:	<b>12</b>
• National:	<b>01</b>
• International:	<b>11</b>
• Books	<b>NA</b>
<b>Research Guidance: Number of PhD Scholars:</b>	<b>NA</b>
• Awarded:	<b>NA</b>
• Registered:	<b>NA</b>
<b>Achievements (If Any):</b>	

### **YOUNG SCIENTIST AWARDS**

- Indian Council of Chemist, “Young Scientist Award” - 2017, Vishakapatnam, India.
- 22<sup>nd</sup> Chemical Research Society of India, Royal Society of Chemistry Award -2018, Raipur, Chhattisgarh, India.
- 3<sup>rd</sup> International Conference on Recent Trends in Renewable Energy and Sustainable Development, First position in Oral Presentation entitled Evaluation of potential binders against spike protein and single-stranded RNA of the COVID-19 via structure-based ligand design and In-silico studies. Bhilai Institute of Technology Raipur on 29<sup>th</sup> and 30<sup>th</sup> of April 2022.

### **OTHERS**

- 3<sup>rd</sup> Position in Merit List of M. Phil. (Chemistry) 2014
- 10<sup>th</sup> Position in Merit List of M.Sc. 2013
- 9<sup>th</sup> Position in Merit List of B.Sc. 2011
- Rajiv Gandhi National Junior Research Fellow 2014

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### **RESEARCH WORK**

M.PHIL.: RNA Binding Efficacy of N- Phenylbenzohydroxamic acid.

Ph.D. : Bio-Macromolecules Targeted Hydroxamic Acid Metal Chelators : Chemical Biology Techniques And Applications

### **RESEARCH PAPER PUBLISHED/COMMUNICATED**

1. **Exploration of the Tungsten(VI) Complex of Hydroxamic Acid's RNA Binding Affinity, Histone Deacetylase Inhibitory Activity, and Antioxidant Activity**  
Yamini Thakur, Rainy Agrawal, Mohammad Khurseed Siddiqi, Eli Mohapatra, Rizwan Hasan Khan and Rama Pande, *Journal of Molecular Structure*, Volume 1311, 5 September 2024, 138318.
2. **In-vitro and in silco analysis and antitumor studies of novel Cu(II) and V(V) complexes of N-p-Tolylbenzohydroxamic acid.** Mamta Tripathi, Yamini Thakur, Rabbani Syed, Ashish Kumar Asatkar, Mohammad S. Alqahtani, Devashish Das, Rainy Agrawal, Bharati Verma, Rama Pande  
*International Journal of Biological Macromolecules*, Volume 268, Part 1, May 2024, 131768
3. **Exploration of In-silico screening of therapeutic agents against SARS-CoV-2.**  
Yamini Thakur and Rama Pande  
*Chemical Physics*, 551 (2021) 111354.
4. **Exploring the DNA Binding Efficacy of Cobalt(II) and Copper(II) Complexes of Hydroxamic Acids and explicating their Anti-Cancer Propensity**  
Yamini Thakur, Rainy Agrawal, Mamta Tripathi, Mohammad Khurseed Siddiqi, Eli Mohapatra, Rizwan Hasan Khan and Rama Pande,  
*Journal of Molecular Structure*, 1197 (2019) 691-706.
5. **New Insight Into The DNA Binding Studies, In-Vitro Anti-Cancer Activity and Molecular Modelling of Dioxo Complexes of Molybdenum(VI) and**

### **Tungsten(VI) Hydroxamic Acids**

**Yamini Thakur**, Mamta Tripathi, Bharati Verma, Rubi Khilari, Rainy Agrawal, Likheshwari, Rama Pande and Eli Mohapatra

*Journal of Macromolecular Science, Part A: Pure and Applied Chemistry*, 54(4), 2019, 1-18.

6. **Interaction of Cobalt(II) and Copper(II) Hydroxamates with Polyriboadenylic Acid: An Insight Into RNA Based Drug Designing**  
**Yamini Thakur**, Mamta Tripathi, Bharati Verma, Rubi Khilari, Rainy Agrawal, Likheshwari, Mohammad Khurseed Siddqi, Rama Pande, Eli Mohapatra and Rizwan Hasan Khan  
*Nucleosides, Nucleotides and Nucleic Acids*, 38(7), 2018, 1-28.
7. **Elucidating the Binding Propensity of Naphthyl Hydroxamic Acid to Human Serum Albumin (HSA): Multi-Spectroscopic and Molecular Modeling Approach**  
Rainy Agrawal, **Yamini Thakur**, Mamta Tripathi, Mohammad Khurseed Siddiqi, Rizwan Hasan Khan and Rama Pande  
*Journal of Molecular Structure*, 1184, 1-11, 2019.
8. **Explication of Bovine Serum Albumin Binding with Naphthyl Hydroxamic Acids by Multi-Spectroscopic and Molecular Docking Approach Along with its Antioxidant Activity**  
Rainy Agrawal, Mohammad Khurseed Siddiqi, **Yamini Thakur**, Mamta Tripathi, Ashish K. Asatkar, Rizwan Hasan Khan and Rama Pande  
*Luminescence*, (2019) 1–16.
9. **N-Arylhydroxamic Acids As Drug Like Molecule: A Motif of Binding Mode With Calf Thymus DNA**  
Bharati Verma, **Yamini Thakur**, Mamta Tripathi, Rubi Khilari and Rama Pande  
*Indian Journal of Biochemistry and Biophysics*; 55(3) (2018) 215-221.
10. **Oxovanadium Complex As Potential Nucleic Acid Binder**  
Mamta Tripathi, Rubi Khilari, **Yamini Thakur**, Bharati Verma, Manish Pardhi and Rama Pande  
*Journal of Macromolecular Science, Part A Pure and Applied Chemistry*; 54, (2) 2017, 85–90.
11. **RNA Binding Efficacy of N-Phenylbenzohydroxamic Acid: In-vitro and In-silico Approach.**  
Rubi Khilari, **Yamini Thakur**, Manish Pardhi, and Rama Pande.  
*Nucleosides, Nucleotides and Nucleic Acids*; 34 (2015) 332–347.
12. **In-vitro Screening of N-Naphthylhydroxamic Acids as DNA Binding Agents.**  
Manish Pardhi, Bharati Verma, Yamini Thakur, Rubi Khilari, Mamta Tripathi and Rama Pande, *Asian Journal of Chemistry*; 28, 12 (2016), 2605-2612.  
**Nucleic Acid Binding Affinity and Antioxidant Activity of N-M-Tolyl-4-Chlorophenoxyacetohydroxamic Acid.**  
Rubi Khilari, **Yamini Thakur**, Mamta Tripathi, Rama Pande and Eli Mohapatra  
*Chimia*, (Under Review).

### **RESEARCH PAPERS PRESENTED IN INTERNATIONAL CONFERENCES**

1. Fluorescence and Docking Studies on the Binding of Copper and Cobalt Complexes to DNA and RNA, **Yamini Thakur** and Rama Pande. Basel Life Science Week & MipTec Exhibition 2015, September 20-24, 2015, Basel, Switzerland

2. RP-HPLC measurement of Lipophilicity of Hydroxamic acid –Metal complexes and Protein Interaction Affinity with emphasis to Drug Discovery. **Yamini Thakur** and Rama Pande. 5th International Conference on Chemical, Agricultural, Biological and Health Sciences (CABHS-2017), May 10-11, 2017, Dubai (UAE).
3. In-vitro and In-silico ct-DNA/t-RNA Binding Study of Hydroxamic Acid-Metal Chelators and Its Anti-cancer Activity. **Yamini Thakur**, Rama Pande and Eli Mohapatra. 20<sup>th</sup> Tetrahedron Symposium, Bangkok, Thailand, June 18-21, 2019.

## **RESEARCH PAPERS PRESENTED IN NATIONAL/STATE CONFERENCES**

1. Invitro and Insilico Screening of RNA Binding Affinity of N-Phenylbenzohydroxamic. **Yamini Thakur** and Rama Pande  
17th CRSI National Symposium in Chemistry, February 06 – 08, 2015, CSIR -NCL, Pune, India.
2. Drug Designing, Discovery and Development Techniques: An Overview  
**Yamini Thakur** and Rama Pande  
One Day Symposium on Science, Technology and Humanity, March 10, 2016, Pt. Ravishankar Shukla University, Raipur, India.
3. Hydroxamic Acids- Co (II)/ Mo (VI) Complexes : Interaction Studies with DNA/RNA  
**Yamini Thakur** and Rama Pande  
Indian Council of Chemist-2016, December, 22-24, 2016 , Pune, India.
4. Reversed Phase-High Performance Liquid Chromatographic Evaluation of Lipophilicity of Hydroxamic Acid –Metal Complexes and its Protein Binding Ability  
**Yamini Thakur**
- 15<sup>th</sup> Chhattisgarh Young Scientist Congress – 2017, February 28–March 1, 2017, Chhattisgarh Swami Vivekananda Technical University, Bhilai (C.G.), India.
5. Intriguing Nucleic acid Binding Parameters of Cobalt (II) Complex of Hydroxamic acid.  
**Yamini Thakur**, Mamta Tripathi and Rama Pande

National Conferences on Advances in Environmental & Chemical Sciences, March 17-18, 2017, Pt. Ravishankar Shukla University, Raipur(C.G.), India.

6. DNA Binding Parameters and Cytotoxicity of Hydroxamic Acid-Metal Complexes  
**Yamini Thakur** and Rama Pande

Indian Council of Chemists-2017, December 26-28 2017, Andhra University, Visakhapatnam, India.

7. Hydroxamic Acid-Metal Complexes as Anti-Cancer Agents and Exploration of DNA/RNA Interaction Parameters and Molecular Docking  
**Yamini Thakur** and Rama Pande  
12<sup>th</sup> CRSI-RSC Symposium in Chemistry and 22<sup>nd</sup> CRSI National Symposium in Chemistry, February 2 - 4, 2018, Pt. Ravishankar Shukla University, Raipur (C.G.), India.
8. Intriguing Nucleic Acid Binding Parameters of Cobalt(II) Complex of Hydroxamic Acid  
**Yamini Thakur**, Mamta Tripathi and Rama Pande  
UGC-SAP DRS-II “National Conference on Advances in Environmental & Chemical Sciences” Pt. Ravishankar Shukla University, Raipur, February 17-18, 2017.
9. Evaluating The Protein Binding Propensity of Naphthylhydroxamic Acids

**RAINY AGRAWAL, YAMINI THAKUR AND RAMA PANDE**

UGC-SAP DRS-II "3<sup>rd</sup> National Conference on Advances in Environmental & Chemical Sciences" Pt. Ravishankar Shukla University, Raipur, March 27-28, 2019.

**INTERNATIONAL/ NATIONAL WORKSHOPS/SYMPOSIUM ATTENDED**

- **"Prospection and Sustainable Use of Medicinal Plants of Chhattisgarh"** Pt. Ravishankar Shukla University, Raipur, September 10-11, 2012.
- **"International Symposium on Environmental- Analytical and Toxicological Issues of Speciation in Atmospheric Organic Aerosols"** Pt. Ravishankar Shukla University, Raipur, December 06-07, 2012.
- **"Translators Orientation Programme"** National Translation Mission, Pt. Ravishankar Shukla University, Raipur, January 24<sup>th</sup> 2013.
- **"National Conference on Recent Trends in Chemical Sciences"** Pt. Ravishankar Shukla University, Raipur, January 23-25, 2014.
- **"Recent Trends in Heterocyclic Compounds and Material Science"** National Institute of Technology, Raipur, May 26 – 30, 2014.
- **"Advances in Analytical Techniques in Chemistry and Material Science"** National Institute of Technology, Raipur, February 08-12, 2016.
- **"One Week Short Term Course with Hands-on Training Programme on In- Silico Drug Design and Discovery"** National Institute of Technology, Raipur, April 04-08, 2016.
- **"2nd Workshop on Advanced Techniques in Anti-Cancer Drug Evaluation"** Advanced Centre for Treatment, Research & Education in Cancer (ACTREC), Navi Mumbai, Maharashtra, October 08 - 12, 2018.
- **"56<sup>th</sup> Annual Convention of Chemists 2019 & International Conference on Recent Trends in Chemical Sciences"** Pt. Ravishankar Shukla University, Raipur, November 14-16, 2019.
- **"International Webinar on Recent Trends in Medicinal Chemistry"** Pt. Ravishankar Shukla University, Raipur, July 27-28, 2020.
- **"Effectiveness of Herbal Drug on COVID-19"** School of Sciences, MATS University, Raipur, July 28, 2020.
- **"Basic Chemistry in Daily Life"** Govt. Krantikumar Bhartiya College, Sakti, Janjgir-Champa, C.G., July 30, 2020.