


<b>NAME</b>	Dr. Biswajit Saha, FRSC	
<b>DESIGNATION</b>	Professor	
<b>EMAIL ID</b>	bsaha1@amity.edu	
<b>CONTACT NUMBER</b>	8588919617	
<b>RESEARCH INTERESTS</b>	1. Medicinal and Synthetic Organic Chemistry 2. Heterocyclic Chemistry 3. Combinatorial Chemistry and Exploration of the interface between Chemistry and Biology through target Oriented Approach for making Biologically Significant Molecules.	

#### EDUCATIONAL QUALIFICATIONS:

Name of College / University	Degree	Year
Central Drug Research Institute (CSIR Lab, Lucknow)	Ph.D (Organic and Medicinal Chemistry)	2007
Indian Institute of technology (IIT) Delhi	M.Tech (Chemistry)	2003
Guahati University	M.Sc (Organic Chemistry)	2001
Pandu College, Guahati University	B. Sc (Chemistry, Honours)	1999

**Title of Ph.D. thesis:** Combinatorial Synthesis of Novel Heterocyclic molecules of Biological Significance.

#### EXPERIENCE (in chronological order)

Designation	Type of post held (teaching/ research)	Name of the Institute	Year (From – To)
Professor	Teaching and Research	Amity Institute of Biotechnology Amity University	August 2022-till Date
Associate Professor	Teaching and Research	Amity Institute of Biotechnology Amity University	April 2015-July 2022
Assistant Professor Gr III	Teaching and Research	Department of Chemistry Apeejay Stya University	February 2013 to April 2015
Senior Research Scientist	Research and Development	Sphaera Pharma, Gurgaon Haryana	January 2012 to December 2012
Post doctorate Research fellow	Research and Development	The University of Arizona, Tucson Arizona (USA)	February 2011 to December 2011
Alexander von Humboldt post doctorate fellow	Research and Development	Technical University of Chemnitz, Chemnitz, Germany	January 2009 to January 2011
Research scientist	Research and Development	Chembiotek, Kolkata	September 2007 to December 2008

<b>Visiting scientist</b>	<p>Visiting Professor/Scientist at Gottingen University, Germany in 2022 under the sponsored ship of Alexander von Humboldt foundation</p> <p>Visiting Professor/Scientist at T.U. Chemnitz, Germany in 2015 and 2018 under the sponsored ship of Alexander von Humboldt foundation</p>
<b>No. of Ph.D. students supervised</b>	<p>Awarded: (no. only): Two</p> <p>Ongoing (no. only): Three</p>
<b>PUBLICATIONS</b> <i>(mention total no. here)</i>	<p><b>Peer-Reviewed Original Research Papers</b></p> <ol style="list-style-type: none"> <li>1. Current Development of <math>\beta</math>-Carboline Derived Potential Antimalarial Scaffolds. Preeti Kushwaha, Vipin Kumar, Biswajit Saha* <i>Eur. J. Med. Chem.</i> 2022 252,</li> <li>2. Recent advancements in Quinoline derivatives as target based anti-cancer agents. Anjali Saxena, Suman Majee, Devalina Ray, Biswajit Saha*. <i>Drug Discovery Today</i>, 2023 (communicated).</li> <li>3. "Anti-microbial, anti-oxidant, and anti-breast cancer properties unraveled in yeast carotenoids produced via cost-effective fermentation technique utilizing waste hydrolysate" <i>Front Microbiol</i> 2022 (IF: 6.06; Q1).</li> <li>4. Synthesis of Fused Polycyclic Fused <math>\beta</math>-Carboline Derivatives Using Ugi-4CR Followed by Cascade Cyclisation". Kumar, V.; Saxena, A.; Patra, R.; Ray, D. Li, Hong. Saha, B.* <i>Molecular Diversity</i> 2022.</li> <li>5. "Transition Metal-Free tert-Butoxide Mediated/Catalyzed Coupling Reactions: An Overview" <i>Chemistry - A European Journal</i>. Kumar, V.; Majee. S; Saha; B.; Ray. D. 2022 (Communicated).</li> <li>6. Synthesis and Anti-malarial Evaluation of novel Thiourea and Guanidine conjugated <math>\beta</math>-carboline against Plasmodium strain. Kumar, V.; Schadeva, C.; Waidha, K.; Ray Devalina,; Sharma,.S.; Saha. B. <i>Chem. Select.</i> <b>2021</b>, 6, 5338–5342.</li> <li>7. "Design and identification of novel <math>\beta</math>-Carboline derivatives against SARS-CoV-2: An in-silico approach." Waidha, K.; Sexena, A.; Ray Devalina,; Sharma,.S.; Saha. B. <i>Heliyon</i>, <b>2021</b>, 7, e06657.</li> <li>8. An Insight in Anti-malarial Potential of Indole Scaffold: A Review, <i>Eur. J. Med. Chem.</i> Chauhan, M.; Sexena, A. Saha. B. <b>2021</b>, 218, 113400.</li> <li>9. An atom-economical and regioselective metal-free C-5 chalcogenation of 8-aminoquinolines under mild conditions, Kumar, B.; Banert, K.; Ray. D.; Saha, B. <i>Org. Biomol. Chem.</i>, <b>2019</b>, 17, 10245-10250.</li> <li>10. Tropidia Curculioides: Secondary Metabolites and Derivatives with Antimycobacterial and Leishmanicidal Activity. Nandan Sarkar, <b>Biswajit Saha</b>, Sarman Singh1, Sabari Ghosal. <i>Phcog. Mag.</i> 2019. (In press).</li> <li>11. Canvassing the aetiology, prognosis and molecular signatures of obstructive sleep apnoea, Khurana, S. Sharda, S.; <b>Saha, B.</b>; Kumar, S, Guleria, R.; Bose, S. <i>Biomarker</i>, 2018, page 1-13.</li> <li>12. "An Expeditious Approach to Access 2-Arylimidazo[1,2-a]pyridin-3-ol From 2-amino Pyridine Through a Novel Petasis Based Cascade Reaction" <b>Saha. B.</b>; Li. Hong <i>Tetrahedron Lett.</i> <b>2014</b>, 55, 1281-1284.</li> <li>13. The Stability of 2,3-Bridged 2H-Azirines Ring-Fused to Six member Carbocycles. Banert, K.; <b>Saha, B.</b>; Würthwein, E-U. <i>J. Org. Chem.</i> <b>2013</b>.</li> </ol>

	<ol style="list-style-type: none"> <li>14. (Z)-<i>N</i>-<i>tert</i>-Butyl-2-(4-methoxyanilino)-<i>N</i>-(4-methoxyphenyl)-2-phenylacetimidamide. Roberts, S A.; <b>Saha, B.</b>; Frett, B.; Li, Hong, <i>Acta Cryst.</i> <b>2013</b>, <i>69</i>, 902.</li> <li>15. <i>P</i>-Toluenenesulfinic Acid Catalyzed Three-component Ugi Reaction and its Application for the Synthesis of <math>\alpha</math>-amino Amidine. <b>Saha, B.</b>; Li, Hong <i>Tetrahedron Lett.</i> <b>2013</b>, <i>54</i>, 2340-2343.</li> <li>16. Generation of Highly Strained 2,3-bridged 2<i>H</i>-azirines via Cycloaddition Reactions of 2-azidobuta-1,3-dienes and Photolysis of the Resulting Cyclic Vinyl Azides. Banert, K.; Penk, E. <b>Saha, B.</b> <i>Tetrahedron</i> <b>2013</b>, <i>69</i>, 2501-2508.</li> <li>17. Highly Strained 2,3-Bridged 2<i>H</i>-Azirines at the Borderline of Closed-Shell Molecules. Banert, K.; <b>Saha, B.</b>; Würthwein, E-U.; Grimme, S.; Ruffer, T.; Lang, H. <i>Chem. Eur. J.</i> <b>2011</b>, <i>17</i>, 1128-1136.</li> <li>18. Application of the Pictet-Spengler Reaction to Aryl Amine Substrates Linked to Deactivate Aromatic Heterosystems. <b>Saha, B.</b>; Sharma, S.; Sawant, D.; Kundu, B. <i>Tetrahedron</i>. <b>2008</b>, <i>64</i>, 8676-8684.</li> <li>19. Cu-FeCl<sub>3</sub> Mediated one Pot Multi-component Reaction Leading to Synthesis of <i>N</i>-aryl/alkyl Triazoles in Water. <b>Saha, B.</b>; Sharma, S.; Sawant, D.; Kundu, B. <i>Synlett</i> <b>2007</b>, 1591-1594. (Highlighted by <i>SYNFACTS</i>, <b>2007</b>, 1142-1142).</li> <li>20. Synthesis of Novel N-Rich Polycyclic Skeletons Based on Azoles and Pyridines. Sharma, S.; <b>Saha, B.</b>; Sawant, D.; Kundu, B. <i>J. Comb. Chem.</i> <b>2007</b>, <i>9</i>, 783-792.</li> <li>21. Water as an Efficient Medium for the Synthesis of Tetrahydro-<math>\beta</math>-Carbolines via Pictet-Spengler Reaction. <b>Saha, B.</b>; Sharma, S.; Sawant, D.; Kundu, B. <i>Tetrahedron Lett.</i> <b>2007</b>, <i>48</i>, 1379-1383.</li> <li>22. An Efficient Method for the Synthesis of Benzimidazoquinazoline Derivatives with Three-Point Diversity. <b>Saha, B.</b>; Sharma, S.; Kundu, B. <i>Synth. Commun.</i> <b>2007</b>, <i>37</i>, 3455-3470.</li> <li>23. Synthesis of Fused Polycyclic Nitrogen-Containing Heterocycles via Cascade Cyclization. <b>Saha, B.</b>; Kumar, R.; Maulik, P. R.; Kundu, B. <i>Tetrahedron Lett.</i> <b>2006</b>, <i>47</i>, 2765-2769.</li> <li>24. Application of Pictet-Spengler Reaction for the Synthesis of Thiazolo- and Pyrazolo-quinolines. Duggineni, S.; Sawant, D.; <b>Saha, B.</b>; Kundu, B. <i>Tetrahedron</i> <b>2006</b>, <i>62</i>, 3228-3241. (Highlighted by <i>SYNFACTS</i>, <b>2006</b>, 0552-0552).</li> <li>25. Synthesis of a Novel Structural Variant of Imidazoquinazoline with Three-Point Diversity. Sharma, S.; <b>Saha, B.</b>; Sawant, D.; Kundu, B. <i>Synthesis</i> <b>2006</b>, 1841-1847.</li> <li>26. Solid Phase Synthesis of Triaza-dibenzoazulenone. <b>Saha, B.</b>; Srivastava, G. K.; Kundu, B. <i>Synlett</i> <b>2004</b>, 2242-2244.</li> </ol>
<p><b>PATENTS</b> (<i>total no.</i>)</p>	<ol style="list-style-type: none"> <li>1. "Design and identification of novel annomontine derivatives against sars-cov-2: an in-silico approach." <b>Copyright Registration Number: L-94682/2020.</b></li> <li>2. A slow-release MOF encapsulated novel neuroprotective complex relied on Li<sup>+</sup> and antioxidant and Vitamin E for the treatment of Glaucoma.</li> </ol>

	<p><b>Patent application Number: 202011018206.</b></p> <p>3. Synthesis and antimalarial evaluation of novel thiourea and guanidine derivatized <math>\beta</math>-carboline. <b>Patent application Number: 202011011433.</b></p> <p>4. An atom-economical, regioselective metal-free C-5 chalcogenation of 8-aminoquinoline, Kumar, B.; Banert, K.; Ray, D.; Saha, B. <b>2019. Patent application Number: 201911024312.</b></p>
<p><b>RESEARCH PROJECTS</b> Completed: <i>(total no. 2)</i> Ongoing: <i>(total no. 1)</i></p>	<p>1. “<i>Bio-evaluation and Identification of Lead Molecules for Lung and Colon cancer from Selected Medicinal Plants.</i>” DHR-ICMR Project GIA/2019/001026/PRCGIA. Amount: INR 75 Lakhs; Duration: 2021-2023 as a Principal Investigator.</p> <p>2. Principal Investigator, DST FAST Project entitled “<i>Multi-component reactions for the Synthesis of heterocyclic molecules of biological significance via imines as an intermediate</i>”, Grant Number CS387/2011; Amount: INR 23 Lakhs; Duration: 2014-2018.</p> <p>3. Funding from Alexander von Humboldt foundation, Germany for purchasing Instruments of amounts 20,000 Euro.</p>
<p><b>AWARDS &amp; HONOURS/ DISTINCTIONS</b></p>	<p>1. Fellow of Royal Society of Chemistry by Royal Society of Chemistry (RSC), London UK 2023</p> <p>2. International Best Research Award in the field of Organic and Medicinal Chemistry, ISSN International Research Awards (IIRA-2022)</p> <p>3. <i>NIH</i> funded postdoctoral Research award (2010-2011) in USA.</p> <p>4. <i>Alexander von Humboldt fellowship</i> for postdoctoral Research (2009-2010) in Germany.</p> <p>5. Qualified <i>NET+JRF/SRF (CSIR)</i> Test conducted by Council for Scientific and Industrial Research and University Grant Commission (2002), India.</p> <p>6. Qualified All India <i>GATE</i> examination in Chemical Sciences (2002).</p> <p>7. Institute fellowship of <i>IIT, Delhi</i>, (2001-2003), New Delhi, India.</p> <p>8. First prize for the best article writing on the occasion of Science Day from Gauhati University (2000).</p>
<p><b>MEMBERSHIP</b> with Professional/ Academic bodies</p>	<p>American Chemical Society, USA Royal Chemical Society, London UK</p>

**For details:**

<http://auup.amity.edu/faculty-detail.aspx?facultyID=15478>