NAME: **Mohammad Abrar Alam**

eRA COMMONS USER NAME (credential, e.g., agency login): mabraralam

POSITION TITLE: Associate Professor of Chemistry

EDUCATION/TRAINING *(Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable. Add/delete rows as necessary.)*

INSTITUTION AND LOCATION	DEGREE *(if applicable)*	Completion Date MM/YYYY	FIELD OF STUDY
Aligarh Muslim University, Aligarh, India	B.Sc.	06/2002	Chemistry & Biology
Aligarh Muslim University, Aligarh, India	M.Sc.	06/2004	Organic Chemistry
Indian Institute of Technology, Kanpur, India	Ph.D.	06/2009	Organic Synthesis
University of Minnesota, Duluth, MN	Postdoctoral	05/2012	Medicinal Chemistry

B. Positions and Honors

Positions and Employment

2009 - 2012 Postdoctoral Fellow, University of Minnesota, Duluth, MN
2012 - 2014 Adjunct Assistant Professor, Rowan University, Glassboro, NJ
2014 - 2015 Visiting Assistant Professor, Arkansas State University, Jonesboro, AR
2015 - 2019 Assistant Professor, Arkansas State University, Jonesboro, AR
2019 - Associate Professor, Arkansas State University, Jonesboro, AR

Other Experience and Professional Memberships

2010 - Reviewer, Organic & Biomolecular Chemistry
2011 - Member, American Chemical Society
2012 - Reviewer, Journal of Organic Chemistry
2012 - Reviewer, Bioorganic Chemistry
2012 - Reviewer, Bioorganic & Medicinal Chemistry
2016 - Reviewer, Antibiotics
2017 - Reviewer, Infection and Drug Resistance
2017 - 2019 Guest editor, Current Organic Synthesis
2018 - Reviewer, Journal of Antibiotics
2018 - Reviewer, Molecules
2018 – Reviewer, Toxins
2019 - Reviewer, Microbial Drug Resistance
2020 - Guest editor, Molecules
2020 – Reviewer, Organic Letters
2020 – Reviewer, Future Medicinal Chemistry
2020 – Reviewer, Scientia Pharmaceutica
2020 – Reviewer, European Journal of Medicinal Chemistry
2020 – Reviewer, Journal of Medicinal Chemistry
2020 – Reviewer, Pharmaceuticals
2020-2021 Guest editor, Molecules

Honors

2004 - 2006 Junior Research Fellowship, CSIR-India
2006 - 2009 Senior Research Fellowship, CSIR-India
2017 New Investigator of the Year Award, Arkansas Biosciences Institute, Arkansas, USA
2019 - 2024 The first Buddy Beck faculty fellowship award, College of Sciences and Mathematics, Arkansas State

University

Complete List of Published Work in My Bibliography:

https://scholar.google.com/citations?user=FqrLrCUAAAAJ&hl=en

https://www.ncbi.nlm.nih.gov/myncbi/collections/bibliography/44707082/

Complete list of Publications

Patents

1. Mereddy, V. R.; Drewes, L. R.; Alam, M. A.; Jonnalagadda, S. K.; Gurrapu, S. "Therapeutic compounds" PCT Int. Appl. **2013**, WO 2013109972 A2 20130725.
2. Antimicrobial agents and the methods of synthesizing antimicrobial agents. United States Patent Application 20170340609, **2020**
3. Cytotoxic agents, anticancer agents and the methods of synthesizing the cytotoxic and anticancer agents. US Patent WO 2020018997 A1**, 2020**
4. Nootkatone derivatives and methods of using the same (Patent pending)

Manuscripts

5. Alam, M. A. Domino/Cascade and Multicomponent Reactions for the Synthesis of Thiazole Derivatives. *Curr. Org. Chem.* **2022**, invited Perspective.
6. Alam, M. A. Anti-bacterial pyrazoles: tackling resistant bacteria. *Future Med. Chem*., **2022,** invited review**,** (manuscript accepted)
7. Alkhaibari, A.; Raj H. K.C.; Dumi, H. A.; Gilmore, D.; Alam, M. A.; Novel pyrazoles as potent growth inhibitors of staphylococci, enterococci and Acinetobacter baumannii bacteria. *Future Med. Chem*., **2022**, (https://doi.org/10.4155/fmc-2021-0140.
8. Chambers, S. A.; Newman, M.; Frangie, M. M.; Savenka, A. V.; Basnakian, A. G.; Alam*, M. A. Antimelanoma activities of chimeric thiazole androstenone derivatives. *R. Soc. Open Sci.* **2021,** *8*, 210395.
9. Hansa, R. K. C.; Khan, M. M. K.; Frangie, M. M.; Gilmore, D. F.; Shelton, R. S.; Savenka, A. V.; Basnakian, A. G.; Shuttleworth, S. L.; Smeltzer, M. S.; Alam*, M. A. 4-4-(Anilinomethyl)-3-[4-(trifluoromethyl)phenyl]-1H-pyrazol-1-ylbenzoic acid derivatives as potent anti-gram-positive bacterial agents. *Eur. J. Med. Chem.*, **2021,** *219*, 113402.
10. Alkhaibari, I. S.; Raj K. C., H.; Alnufaie, R.; Gilmore, D.; Alam*, M. A. Synthesis of Chimeric Thiazolo-Nootkatone Derivatives as Potent Antimicrobial Agents. *ChemMedChem* **2021,** *16*, 2628-2637.
11. Alkhaibari, I. S.; KC, H. R.; Roy, S.; Abu-gazleh, M. K.; Gilmore, D. F.; Alam*, M. A. Synthesis of 3,5-Bis(trifluoromethyl)phenyl-Substituted Pyrazole Derivatives as Potent Growth Inhibitors of Drug-Resistant Bacteria. *Molecules* **2021,** *26*, 5083.
12. Saleh, I.; Raj Kc, H.; Roy, S.; Abugazleh, M. K.; Ali, H.; Gilmore, D.; Alam*, M. A. Design, synthesis, and antibacterial activity of N-(trifluoromethyl)phenyl substituted pyrazole derivatives. *RSC Med. Chem.*, **2021**. https://doi.org/10.1039/D1MD00230A.
13. Alnufaie, R.; Ali, M. A.; Alkhaibari, I. S.; Roy, S.; Day, V. W.; Alam*, M. A. Benign synthesis of fused-thiazoles with enone-based natural products and drugs for lead discovery. *New J. Chem.*, **2021,** *45*, 6001-6017.
14. Delancey, E.; Allison, D.; KC, H. R.; Gilmore, D. F.; Fite, T.; Basnakian, A. G.; Alam, M. A., Synthesis of 4,4′-(4-Formyl-1H-pyrazole-1,3-diyl)dibenzoic Acid Derivatives as Narrow Spectrum Antibiotics for the Potential Treatment of Acinetobacter Baumannii Infections. *Antibiotics* **2020,** *9*, 650.
15. Alnufaie, R.; Alsup, N.; Kc, H. R.; Newman, M.; Whitt, J.; Chambers, S. A.; Gilmore, D.; Alam, M. A., Design and synthesis of 4-[4-formyl-3-(2-naphthyl)pyrazol-1-yl]benzoic acid derivatives as potent growth inhibitors of drug-resistant Staphylococcus aureus. *J Antibiot.* **2020**, https://doi.org/10.1038/s41429-020-0341-2.
16. Alnufaie, R.; Raj, H. KC.; Alsup, N.; Whitt, J.; Chambers, S. A.; Gilmore, D.; Alam, M. A. Synthesis and Antimicrobial Studies of Coumarin-Substituted Pyrazole Derivatives as Potent Anti-Staphylococcus aureus Agents. *Molecules* **2020**, *25*, 2758.

17. Whitt, J.; Duke, C.; Ali, M. C.; Chambers, S. A.; Khan, M. M. K.; Gilmore, D.; Alam. M. A. Synthesis and Antimicrobial Studies of 4-[3-(3-Fluorophenyl)-4-formyl-1H-pyrazol-1-yl]benzoic Acid and 4-[3-(4-Fluorophenyl)-4-formyl-1H-pyrazol-1-yl]benzoic., *ACS omega* **2019**, 4, 14284-14293.
18. Alam, M. A. Methods for Hydroxamic Acid Synthesis. *Curr. Org. Chem*., **2019**, 23, 978 – 993.
19. Whitt, J.; Duke, C.; Sumlin, A.; Chambers, S. A.; Alnufaie, R.; Gilmore, D.; Fite, T.; Basnakian, A. G.; Alam, M. A. Synthesis of Hydrazone Derivatives of 4-[4-Formyl-3-(2-oxochromen-3-yl)pyrazol-1-yl]benzoic acid as Potent Growth Inhibitors of Antibiotic-resistant *Staphylococcus aureus* and *Acinetobacter baumannii*. *Molecules* **2019**, *24*, 2051-2063.
20. Alam, M. A. Catalysis and the Synthesis of Pharmacologically Small Molecules. *Curr. Org. Chem*. **2019**, *23*, 976 – 977.
21. Ali, M. A.; Alam, M. A. Novel photoresponsive cyclicparaphenylenediazenes: structure, strain energy, cis–trans isomerization, and electronic properties. *Photochem Photobiolog Sci*. **2019**, *18*, 1185-1196.
22. Ali, M. A.; Okolo, C.; Alsharif, Z. A.; Whitt, J.; Chambers, S. A.; Varma, R. S.; Alam, M. A., Benign Synthesis of Thiazolo-androstenone Derivatives as Potent Anticancer Agents. *Org. Lett*. **2018**, *20*, 5927-5932.
23. Okolo, C.; Ali, M. A.; Newman, M.; Alsharif, Z. A.; Whitt, J.; Chambers, Hexafluoroisopropanol-Mediated Domino Reaction for the Synthesis of Thiazolo-androstenones: Potent Anticancer Agents. *ACS Omega*, **2018**, *3*, 17991-18001.
24. Zakeyah, A. A.; Whitt, J.; Duke, C.; Gilmore, D. F.; Meeker, D. G.; Smeltzer, M. S.; Alam, M. A., Synthesis and antimicrobial studies of hydrazone derivatives of 4-[3-(2,4-difluorophenyl)-4-formyl-1H-pyrazol-1-yl]benzoic acid and 4-[3-(3,4-difluorophenyl)-4-formyl-1H-pyrazol-1-yl]benzoic acid. *Bioorg. Med. Chem. Lett*., **2018**, *28*, 2914-2919.
25. Nelson, G. L.; Williams, M. J.; Jonnalagadda, S.; Alam, M. A.; Mereddy, G.; Johnson, J. L.; Jonnalagadda, S. K. Synthesis and Evaluation of Baylis-Hillman Reaction Derived Imidazole and Triazole Cinnamates as Antifungal Agents. *Int. J. Med. Chem*., **2018**, Article ID 5758076.
26. Alsharif, Z.; Ali, M. A.; Alkhattabi, H.; Jones, D.; Delancey, E.; Ravikumar, P. C.; Alam, M. A. Hexafluoroisopropanol mediated benign synthesis of 2H-pyrido[1,2-a]pyrimidin-2-ones by using a domino protocol. *New J. Chem*., **2017**, *41*, 14862.
27. Ali, M. A.; Alam, M. A., Theoretical studies on the structure and thermochemistry of cyclicparaphenylenediazenes. *RSC Adv*., **2017**, *7*, 40189.
28. Alsharif, Z. A.; Alam, M. A., Modular synthesis of thiazoline and thiazole derivatives by using a cascade protocol. *RSC Adv*., **2017**, *7*, 32647.
29. Allison, D.; Delancey, E.; Ramey, H.; Williams, C.; Alsharif, Z. A.; Al-Khattabi, H.; Ontko, A.; Gilmore, D.; Alam, M. A., Synthesis and antimicrobial studies of novel derivatives of 4-(4-formyl-3-phenyl-1H-pyrazol-1-yl)benzoic acid as potent anti-*Acinetobacter baumannii* agents. *Bioorg. Med. Chem. Lett.* **2017**, 27, 387.
30. Brider, J.; Rowe, T.; Gibler, D. J.; Gottsponer, A.; Delancey, E.; Branscum, M. D.; Ontko, A.; Gilmore, D.; Alam, M. A., Synthesis and antimicrobial studies of azomethine and N-arylamine derivatives of 4-(4-formyl-3-phenyl-1H-pyrazol-1-yl)benzoic acid as potent anti-methicillin-resistant *Staphylococcus aureus* agents. *Med. Chem. Res*. **2016**, *25*, 2691.
31. Alam, M. A.; Alsharif, Z.; Alkhattabi, H.; Jones, D.; Delancey, E.; Gottsponer, A.; Yang, T., Hexafluoroisopropyl alcohol mediated synthesis of 2,3-dihydro-4H-pyrido[1,2-a]pyrimidin-4-ones. *Scientific Reports* **2016**, *6*, 36316.
32. Gurrapu, S.; Jonnalagadda, S. K.; Alam, M. A.; Ronayne, C. T.; Nelson, G. L.; Solano, L. N.; Lueth, E. A.; Drewes, L. R.; Mereddy, V. R., Coumarin carboxylic acids as monocarboxylate transporter 1 inhibitors: In vitro and in vivo studies as potential anticancer agents. *Bioorg. Med. Chem. Lett.* **2016,** *26*, 3282.
33. Alam, M. A.; Arora, K.; Gurrapu, S.; Jonnalagadda, S. K.; Nelson, G. L.; Kiprof, P.; Jonnalagadda, S. C.; Mereddy, V. R., Synthesis and evaluation of functionalized benzoboroxoles as potential anti-tuberculosis agents. *Tetrahedron* **2016**, 72, 3795.
34. Gurrapu, S.; Jonnalagadda, S. K.; Alam, M. A.; Nelson, G. L.; Sneve, M. G.; Drewes, L. R.; Mereddy, V. R. Monocarboxylate Transporter 1 Inhibitors as Potential Anticancer Agents. *ACS Med. Chem. Lett*. **2015**, *6*, 558.
35. Alam, M. A.; Reddy, Y. S.; Ali, A. New and Under Explored Epigenetic Modulators in Search of New Paradigms. *Med. Chem*. **2015**, 11, 271.
36. Alam, M. A. Potential Therapeutic Agents from the Red Sea Organisms. *Med. Chem*. **2014**, *10*, 550.

37. Nelson, G.; Alam, M. A.; Atkinson, T.; Gurrapu, S.; Kumar, J. S.; Bicknese, C.; Johnson, J. L; Williams, M. Synthesis and Evaluation of *p-N*, *N*-Dialkyl Substituted Chalcones as *anti*-Cancer agents. *Med Chem Res.* **2013,** *22*, 4614.
38. Tekkam, S.; Alam, M. A.; Just, M. J.; Berry, S. M.; Johnson, S. L.; Jonnalagadda, S. C.; Mereddy V. R. Concise Stereoselective Syntheses of Functionalized Pyroglutamates. *Anticancer Agents Med. Chem*. **2013**, *13*, 1514.
39. Kumar, J. S.; Alam, M. A.; Gurrapu, S.; Nelson, G.; Williams, M.; Corsello, M. A; Johnson, J. L.; Jonnalagadda, S. C.; Mereddy, V. R. Synthesis and Biological Evaluation of Novel Benzoxaboroles as Potential Antimicrobial and Anticancer Agents. *J. Het. Chem*. **2013**, *50*, 814.
40. Tekkam, T,; Alam, M. A.; Jonnalagadda, S. C.; Mereddy, V. R. Novel methodologies for the synthesis of functionalized pyroglutamates. *Chem. Commun*. **2011**, *47*, 3219.
41. Just, M. J.; Tekkam, S.; Alam, M. A.; Jonnalagadda, S, C.; Johnson, J. L.; Mereddy, V, R. Stereoselective synthesis of functionalized pyroglutamates. *Tetrahedron Lett*. **2011**, *52*, 5349.
42. Kumar, A.; Alam, M. A.; Rani, S.; Vankar, Y. D. Synthesis of 1,4-dideoxy-1,4-iminoheptitol and 1,5-dideoxy-1,5-iminooctitols from D-xylose. *Carbohydrate Res.* **2010**, *345*, 1142.
43. Alam, M. A,; Vankar, Y. D. Total synthesis of (+)-lentiginosine from D-glucose. *Tetrahedron Lett*. **2008**, *49*, 5534.
44. Alam, M. A.; Kumar, A.; Vankar, Y. D. Total Synthesis of L-(+)-Swainsonine and Other Indolizidine Azasugars from D-Glucose. *Eur*. *J. Org. Chem*. **2008**, 4972.

Meeting Papers

Poster presentation

1. Roy, S.; Alam, M. A. Pyrazole-derived anilines as potent antimicrobial agents. **2021** SOUTHEAST REGIONAL IDEA CONFERENCE. Nov. 12-14. **2021**.
2. Mahbub Kabir Khan, Ibrahim Saleh, Hansa Raj KC, Thomas Langowski, Malik Raynor, Mozna Khraiwesh, Mary Macdonald, David Gilmore, Mohammad A. Alam. Synthesis and Antimicrobial Studies of Novel Pyrazole-Derived Benzoic Acids. Abstract ID: MHSRS-20-00330. **2020**
3. Raj, H. K. C.; Gilmore, D.; Alam, M. A. Antimicrobial Studies of 1,3-Diphenylpyrazole-derived Anilines against Methicillin-resistant *Staphylococcus aureus*. 5th Annual LSUS Regional Symposium, Shreveport, LA, USA, March 12, **2020**.
4. Ibrahim, S.; H. K. C.; Gilmore, D.; Alam, M. A. Synthesis of trifluoromethyl phenyl-derived pyrazole as potent growth inhibitors of drug resistant bacteria. 5th Annual LSUS Regional Symposium, Shreveport, LA, USA, March 12, **2020**.
5. Khan, M. K.; H. K. C.; Gilmore, D.; Alam, M. A. Synthesis of pyrazole-based fluoro-aniline derivatives as potent microbial agents. 5th Annual LSUS Regional Symposium, Shreveport, LA, USA, March 12, **2020**.
6. Nickolas Alsup, Rawan Alnufaie, Mathew Newman, David Gilmore, Mohammad A. Alam, Synthesis of naphthalene-derived pyrazoles as potent growth inhibitors of drug resistant bacteria. ABI Statewide Symposium is hosted by Arkansas State University September 24-25, **2019**.
7. ChrisTina Okolo, Matthew Newman, Drew Chambers. Synthesis and Antiproliferative Activity of Thiazolo-Androstenones Against Breast Cancer Cell Lines. CREATE@Astate, Arkansas State University, Jonesboro. April 15, **2019**.
8. Chambers, A.; Newman M.; Alam, M. A. Design, Synthesis, and anti-Melanoma Studies of novel Thiazole-Androstenone Derivatives. CAURS UAMS, Little Rock, AR, July 24, **2019**.
9. Whitt, J.; Khan, M. M. K.; Sumlin, A.; Gilmore, D.; Alam, M. A. Synthesis and Antimicrobial Studies of Potent 4-[1-(4-carboxyphenyl)-4-formyl-pyrazol-3-yl]benzoic Acid derivatives. Drug Discovery and Development Colloquium 2019 UAMS, Little Rock, AR, June 13-15, **2019**.
10. Alnufaie, R.; Sumlin, A.; Whitt, J.; Gilmore, D.; Alam, M. A. Synthesis and Antimicrobial Studies of hydrazone Derivatives of Naphthalene-derived pyrazoles. LSAMP. **2018**
11. Machado, M. F.; Newman, M.; Chambers, A.; Okolo, C.; Alam, M. A. Synthesis and anti-Melanoma Studies of novel Thiazole-Androstenone Derivatives. LSAMP, **2018**
12. Okolo, C.; Jedidiah, W.; Conrad, W.; Alam, M. A. Fused thiazoline-androstane derivatives as potential anticancer agents. 255th ACS National Meeting & Exposition, New Orleans, LA, United States, March 18-22, **2018**, Pages MEDI-179.

13. Conrad, W.; Jedidiah, W.; Okolo, C.; Alam, M. A. Antimelanoma studies of novel pyrazole and fused thiazoline-androstanedione derivatives. 255th ACS National Meeting & Exposition, New Orleans, LA, United States, March 18-22, **2018**, Pages MEDI-125.
14. Siddiqua, A.; Alam, M. A. Morphological Investigation of Mammalian Cancer Cells. The Arkansas Academy of Science Annual Meeting, **2018**, April 6-7, 2018.
15. Whitt, J.; Okolo, C; Duke, C.; Gilmore, D.; Alam, M. Development of Halogenated Pyrazole-based Antimicrobial agents. ABI Fall Research Symposium, Fayetteville, AR, **2017**. 09/15/**2017**
16. Alam, M. A.; Gilmore, D.; Conrad, W.; Whitt, J.; Laws, J. A. Synthesis and antibacterial studies of difluorophenyl pyrazole derivatives. Central Arkansas Summer Undergraduate Research Symposium: UAMS Little Rock, **2017**, 07/26/2017.
17. Laws, H. J.; Alsharif, A. A.; Duke, C.; Gilmore, D.; Alam, M. A. Development of fluorophenyl pyrazole based antibiotics as potent anti-Acinetobacter baumannii agents, Create @ State, **2017**, 04/20/2017.
18. Aldharif, Z. A.; Okolo, C., Alam, M. A. Efficient approach to synthesize novel thiazoles and thiazolines, Create @ State, **2017**, 04/20/2018.
19. Ramey, H.; Laws, H.; Gilmore, D.; Alam, M. A. Synthesis and antibacterial studies of coumarin-derived pyrazole derivatives, Council on Undergraduate Research: **2017**; University of Memphis, Tennessee.
20. Allison, D.; Williams, C.; Gilmore, D.; Alam, M. A. Synthesis and and antibacterial studies of pyrazole-derived alkenes, Council on Undergraduate Research: **2017**; University of Memphis, Tennessee.
21. Allison, D.; Delaney, E.; Ramey, H.; Williams, C.; Gilmore, D.; Alam, M. Development of pyrazole based antibiotics as potent anti-Acinetobacter baumannii agents. Arkansas STEM Coalition, Capitol Little Rock, **2017**.
22. Alam, M.; Allison, D.; Delancey, E.; Jones, D.; Gottsponer, A.; Gilmore, D. Synthesis and antimicrobial studies of hydrophilic pyrazole derivatives as potent antibacterial agents, American Chemical Society: Philadelphia, PA, **2016**; pp MEDI-126.
23. Alam, M.; Jones, D.; Alsharif, Z.; Alkhattabi, H. In Synthesis and antimicrobial studies of hydrophilic pyrazole derivatives as potent antibacterial agents, American Chemical Society: **2016**; pp MEDI-156.
24. Alam, M.; Alsharif, Z.; Alkhattabi, H.; Jones, D.; Ramey, H. Sustainable synthesis of pyrido pyrimidinones, American Chemical Society: Philadelphia, PA, **2016**; pp ORGN-680.
25. Alam, M.; Alkhattabi, H.; Alsharif, Z.; Jones, D. In Synthesis and biological studies of dihydropyrido pyrimidinones, American Chemical Society: **2016**; pp MEDI-365.
26. Alsharif, Z.; Alkhattabi, H.; Jones, D; Gottsponer, A.; Delaney, E.; Ramey, H.; Alam, M. A. Sustainable Approach to Synthesize Nitrogen Heterocycles as Potential Anticancer Agents. Create @ State, **2016**.
27. Rowe, T.; Allison, D.; Delany, E.; Gottsponer, A.; Gibler, D.; Branscum, M.; Gilmore, D.; Alam, M. A. Synthesis and Antimicrobial Studies of Pyrazole Derivatives as Potent Anti-Methicillin Resistant Staphylococcus aureus Agents, Create @ State, **2016**.
28. Trent, R.; Gibler, D. J.; Jamarcus, B.; Ontko, A. C.; Gilmore, D. Alam, M. A. Synthesis and antimicrobial studies of pyrazole derivatives as potent antibacterial agents. 67th Southeast/71st Southwest Joint Regional Meeting of the American Chemical Society, Memphis, TN, United States, November 4-7, **2015**. SERMACS-SWRM-254.
29. Rowe, T.; Brider, J.; Branscum, M.; Alam, M. A. Synthesis of pyrazole derivatives as potential cytotoxic agents. 249th ACS National Meeting & Exposition, Denver, CO, United State, March 22-26, **2015**.
30. Branscum, M.; Rowe, T.; Brider, J.; Alam, M. A. Design and synthesis of coumerin-aminoethylphenol hybrids as potential epigenetic modulators. 249th ACS National Meeting & Exposition, Denver, CO, United State, March 22-26, **2015**.
31. Shirisha, G.; Jonnalagadda, S. K.; Alam, M. A.; Nelson, G. L.; Murthy, M. S.; Hill, M. A.; Ronayne, C. T. Novel small molecule MCT inhibitors as anticancer agents. 247th ACS National Meeting & Exposition, Dallas, TX, United States, March 16-20, **2014.**
32. Alam, M. A.; Bacani, M. R.; Holt, C. M.; Murthy, M. S. R. C.; Jonnalagadda, S. C. 39th Northeast Regional Meeting of the American Chemical Society, New Haven, CT, United States, October 23-26, **2013**.
33. Yeruva, S. R.; Fishbein, S. H.; Chary, P. K.; **Alam, M. A**.; Murthy, M. S. R. C.; Jonnalagadda, S. C. Synthesis and Biological Evaluation of Novel Aminobenzoboroxoles as Potential Anti-Cancer Agents. 39th Northeast Regional Meeting of the American Chemical Society, New Haven, CT, United States, October 23-26, **2013**.
34. Alam, M. A.; Just, M. J.; Johnson, J. L.; Berry, S. M.; Jonnalagadda, S. C.; Mereddy, V. R. Stereoselective synthesis of chiral borono-pyroglutamates. 243rd ACS National Meeting & Exposition, San Diego, CA, United States, March 25-29, **2012**

35. Alam, M. A.; Atkinson, Mereddy, V. R. Synthesis and evaluation of p-N,N-dialkyl substituted chalcones as potential anticancer agents. 243rd ACS National Meeting & Exposition, San Diego, CA, United States, March 25-29, **2012**
36. Alam, M. A.; Nelson, G.; Gurrapu, Mereddy, V. R. 243rd ACS National Meeting & Exposition, San Diego, CA, United States, March 25-29, **2012**
37. Alam, M. A.; Gurrapu, Shirisha; Mereddy, Venkatram R. 244th ACS National Meeting & Exposition, Philadelphia, PA, United States, August 19-23, **2012**.
38. Williams, M. J.; Corsello, M. A.; Alam, M. A.; Mereddy, V. R. 244th ACS National Meeting & Exposition, Philadelphia, PA, United States, August 19-23, **2012**.

Oral presentations

39. Laws, H. J.; Alam, M. A. Synthesis, antibacterial, and cytotoxicity studies of pyrazole-derived compounds. Create @ State, **2018**, April 16th 2018.
40. Delancey, E.; Nakaya, K.; Williams, C.; Gilmore, D.; Alam, M. A. Synthesis and antibacterial studies of naphthalene containing pyrazole-derived hydrazones, Council on Undergraduate Research: **2017**; University of Memphis, Tennessee.
41. Williams, C.; Duke, C., Whitt, J.; Laws, J. Synthesis and antibacterial studies of difluorophenyl pyrazole derivatives, Central Arkansas Undergraduate Summer Research Symposium: **2017**, University of Arkansas for Medical Sciences, Little Rock, 07/26/2017.

Thesis Supervised: Graduate Thesis (MS) Advisor for

Zakeyah Ali Alsharif
Rawan Alnufaie
Mahbub Kabir Khan
Ibrahim Saleh

Teaching: Taught following courses

Organic Chemistry I
Organic Chemistry II
Advanced Organic Chemistry
Basics of Organic and Biochemistry
Pharmacology (antibiotics and anticancer modules)
Cell Biology (small molecules)

Funding and Grants for Research Activities: Research data generated in my lab have helped to get several external and internal research grants.

1. MRI 2117138, NSF Alam, Mohammad (PI)
08/01/2021-07/31/2024
MRI: Acquisition of a 400 MHz Nuclear Magnetic Resonance (NMR) for Research at Arkansas State University
Amount of Funding: $346,000

2. Arkansas Bioscience Institute (ABI mini grant) Alam, Mohammad (PI)
7/01/21-6/30/23
Synthesis and antimicrobial studies of fused thiazolo-nootkatone derivatives
Amount of Funding: $70,000

3. Research Development Grant (RDG) Alam, M. A. (PI) 06/01/20-12/30/22
Source: External, The University of Arkansas for Medical Sciences Winthrop P. Rockefeller Cancer Institute (WPRCI)
The goal of this project is to synthesize a number of fused-thiazole develop antimelanoma agents.

Amount of Funding: $261,000

4. INBRE Voucher Award Alam, M. A. (PI) 12/01/19-04/30/20
Source: External, Arkansas INBRE Core Facility Voucher Program
The goal of this project is to get mass spectrometry data of 200 novel molecules from Statewide Mass Spectrometry Facility, Fayetteville, AR.
Amount of Funding: $5,000

5. INBRE Voucher Award Alam, M. A. (PI) 08/01/18-04/30/19
Source: External, Arkansas INBRE Core Facility Voucher Program
The goal of this project is to get mass spectrometry data of 140 novel molecules from Statewide Mass Spectrometry Facility, Fayetteville, AR.
Amount of Funding: $5,000

6. INBRE Voucher Award Alam, M. A. (PI) 02/08/18-04/30/18
Source: External, Arkansas INBRE Core Facility Voucher Program
The goal of this project is to get mass spectrometry data of 200 novel molecules from Statewide Mass Spectrometry Facility, Fayetteville, AR.
Amount of Funding: $5,000

7. Research Development Grant Alam, M. A. (PI) 01/01/18-04/31/20
Source: External, Arkansas IDeA Network of Biomedical Research Excellence (INBRE)
Title: Novel pyrazole derivatives as antibacterial agents.
Amount of Funding: $325,460

8. Shared Instrumentation Grant Alam, M. A. (PI) 01/01/18-04/30/18
Source: External, Arkansas IDeA Network of Biomedical Research Excellence (INBRE)
Title: Cryogenic storage container to store mammalian cells.
Amount of Funding: $6,013

9. Pilot Study Grant Alam, M. A. (PI) 09/01/17-04/30/18
Source: External, Arkansas IDeA Network of Biomedical Research Excellence (INBRE)
Title: Cytotoxicity studies of novel pyrazole compounds as potent antimelanoma agents.
Amount of Funding: $55,888

10. INBRE Voucher Award Alam, M. A. (PI) 05/01/15-04/30/16
Source: External, Arkansas INBRE Core Facility Voucher Program
The goal of this project was to get mass spectrometry data of 200 novel molecules from Statewide Mass Spectrometry Facility, Fayetteville, AR.
Amount of Funding: $5,000

11. INBRE Voucher Award Alam, M. A. (PI) 05/01/16-04/30/17
Source: External, Arkansas INBRE Core Facility Voucher Program
The goal of this project is to get mass spectrometry data of 200 novel molecules from Statewide Mass Spectrometry Facility, Fayetteville, AR.
Amount of Funding: $5,000

12. INBRE Voucher Award Alam, M. A. (PI) 02/01/17-09/30/17
Source: External, Arkansas INBRE Core Facility Voucher Program
The goal of this project is to get in vivo toxicity data of one potent anti-Acinetobacter baumannii agent from DNA Damage and Toxicology Core Facility, UAMS Little Rock, AR.
Amount of Funding: $5,000

13. INBRE Voucher Award Alam, M. A. (PI) 04/30/17-04/30/17
Source: External, Arkansas INBRE Core Facility Voucher Program

The goal of this project is to get in vivo toxicity data of one potent anti-Acinetobacter baumannii agent from DNA Damage and Toxicology Core Facility, UAMS Little Rock, AR.
Amount of Funding: $5,000

14. INBRE start-up grant Alam, M. A. (PI) 05/01/15-04/30/18
Source: External, INBRE UAMS
Title: Development of novel methodologies to synthesize small molecule heterocycles as potential antimicrobial and anticancer agents.
Amount of Funding: $100,000

15. ABI start-up grant 200127 Alam, M. A. (PI) 05/01/15-04/30/18
Source: Internal, ABI A-State start-up grant
Title: Development of novel methodologies to synthesize small molecule heterocycles as potential antimicrobial and anticancer agents.
Amount of Funding: $100,000

16. ABI mini-grant Alam, M. A. (PI) 05/01/17-04/30/18
Source: Internal, ABI A-State grant
Title: Novel pyrazole derivatives as anti-Gram-negative bacterial agents.
Amount of Funding: $70,000

17. ABI mini-grant Alam, M. A. (PI) 07/01/18-05/31/20
Source: Internal, ABI A-State grant
Title: Synthesis and anti-breast cancer studies of novel thiazolo-androstenone derivatives
Amount of Funding: $100,000

18. Teaching Undergraduate Research Fellowship Alam, M. A. (PI) 01/15/15-12/30/15
Source: Internal, Dean's Office, College of Science and Mathematics
Title: Synthesis and antimicrobial studies of novel coumarin derivatives.
Amount of Funding: $5,000

19. Faculty Seed Grant Award Alam, M. A. (PI) 05/15/15-05/14/16
Source: Internal, Provost's office
Title: Development of a methodology to synthesize pyrido-pyrimidinones.
Amount of Funding: $5,000

20. Faculty Research Award Alam, M. A. (PI) 06/01/16-05/31/17
Source: Internal, Faculty Research Award Committee (FRAC)
Title: Development a novel methodology to synthesize novel thiazole derivatives by using hexafluoroisopropanol.
Amount of Funding: $5,000

21. Kays Foundation Grant Alam, Mohammad (PI)
08/01/2020-12/31/2021
The determination of mode of action of pyrazole derivatives.
Amount of Funding: $15,000