

University of Mississippi

eGrove

---

Publications (2015-)

Research Grants, Publications, and U. S.  
Patents

---

2022

## Research News, Publications, 2022, Volume 4

Soumyajit Majumdar

Follow this and additional works at: [https://egrove.olemiss.edu/pharmacy\\_publications](https://egrove.olemiss.edu/pharmacy_publications)



Part of the Pharmacy and Pharmaceutical Sciences Commons

---



School of  
**Pharmacy**

---

**Interoffice Memorandum  
School of Pharmacy  
Office of Research & Graduate Programs  
University, MS 38677-1848  
Phone: (662) 915-3793**

---

To: All School of Pharmacy and USDA personnel

From: Soumyajit Majumdar, Associate Dean for Research and Graduate Programs

Date: January 19, 2023

Publications which have appeared between October 1 and December 31, 2022:

1. Abdulrahman B, Aydogan F, Zulfiqar F, Zhao J, Ali Z, Khan IA, Bello O, Muntari B. A Novel Cyclohexane Carboxylic Acid Derivative from Black Turtle Bean (*Phaseolus vulgaris* L.). Records of Natural Products. 2022(1):93-8. [doi: 10.25135/rnp.325.2202.2361](https://doi.org/10.25135/rnp.325.2202.2361)
2. Ahmed HA, Ticar BF, Black I, Mahdi F, Shami AA, Misra SK, Heiss C, Paris JJ, Sharp JS, Azadi P, Pomin VH. Structural characterization and biological activity of an  $\alpha$ -glucan from the mollusk *Marcia hiantina* (Lamarck, 1818). Glycoconjugate Journal. 2022. [doi: 10.1007/s10719-022-10092-6](https://doi.org/10.1007/s10719-022-10092-6)
3. Ahmed S, Ahmad M, Razaq M, Shah FM. Irrigation Stress to Wheat at Sensitive Growth Stages: Tri-trophic Effects and Implications for Aphid Control. PJZ. 2022;54(6). [doi: 10.17582/journal.pjz/20191001021022](https://doi.org/10.17582/journal.pjz/20191001021022)

4. Ali A, Mir MUR, Ganie SA, Mushtaq S, Bukhari SI, Alshehri S, Rashid SM, Mir TM, Rehman MU. Milk-Compositional Study of Metabolites and Pathogens in the Milk of Bovine Animals Affected with Subclinical Mastitis. *Molecules*. 2022;27(23):8631. [doi: 10.3390/molecules27238631](https://doi.org/10.3390/molecules27238631)
5. Ali S, Majid S, Ali MN, Banday MZ, Taing S, Wani S, Almuqbil M, Alshehri S, Shamim K, Rehman MU. Immunogenetic Role of IL17A Polymorphism in the Pathogenesis of Recurrent Miscarriage. *J Clin Med*. 2022;11(24):7448. [doi: 10.3390/jcm11247448](https://doi.org/10.3390/jcm11247448)
6. Alkhodier RA, Mishra SK, Doerksen RJ, Colby DA. Comparison of Conformational Analyses of Naturally Occurring Flavonoid-O-Glycosides with Unnatural Flavonoid-CF2-Glycosides Using Molecular Modeling. *J Chem Inf Model*. 2023;63(1):375-86. [doi: 10.1021/acs.jcim.2c01147](https://doi.org/10.1021/acs.jcim.2c01147)
7. Almotairy A, Almutairi M, Althobaiti A, Alyahya M, Sarabu S, Zhang F, Bandari S, Ashour E, Repka MA. Investigation of hot melt extrusion process parameters on solubility and tableability of atorvastatin calcium in presence of Neusilin® US2. *Journal of Drug Delivery Science and Technology*. 2023;79:104075. [doi: 10.1016/j.jddst.2022.104075](https://doi.org/10.1016/j.jddst.2022.104075)
8. Almutairi M, Srinivasan P, Zhang P, Austin F, Butreddy A, Alharbi M, Bandari S, Ashour EA, Repka MA. Hot-Melt extrusion coupled with pressurized carbon dioxide for enhanced processability of pharmaceutical polymers and drug delivery applications – An integrated review. *International Journal of Pharmaceutics*. 2022;629:122291. [doi: 10.1016/j.ijpharm.2022.122291](https://doi.org/10.1016/j.ijpharm.2022.122291)
9. Alsherif EA, Almaghrabi O, Elazzazy AM, Abdel-Mawgoud M, Beemster GTS, AbdElgawad H. Carbon nanoparticles improve the effect of compost and arbuscular mycorrhizal fungi in drought-stressed corn cultivation. *Plant Physiology and Biochemistry*. 2023;194:29-40. [doi: 10.1016/j.plaphy.2022.11.005](https://doi.org/10.1016/j.plaphy.2022.11.005)
10. Alsherif EA, Almaghrabi O, Elazzazy AM, Abdel-Mawgoud M, Beemster GTS, Sobrinho RL, AbdElgawad H. How Carbon Nanoparticles, Arbuscular Mycorrhiza, and Compost Mitigate Drought Stress in Maize Plant: A Growth and Biochemical Study. *Plants*. 2022;11(23):3324. [doi: 10.3390/plants11233324](https://doi.org/10.3390/plants11233324)
11. Althobaiti AA, Ashour EA, Almotairy A, Almutairi M, AlYahya M, Repka MA. Development and characterization of different dosage forms of nifedipine/indomethacin fixed-dose combinations. *Journal of Drug Delivery Science and Technology*. 2023;80:104117. [doi: 10.1016/j.jddst.2022.104117](https://doi.org/10.1016/j.jddst.2022.104117)

12. Alzahrani A, Adel Ali Youssef A, Senapati S, Tripathi S, Bandari S, Majumdar S, Repka MA. Formulation development and *in Vitro–Ex vivo* characterization of hot-melt extruded ciprofloxacin hydrochloride inserts for ocular applications: Part I. *International Journal of Pharmaceutics*. 2023;630:122423. [doi: 10.1016/j.ijpharm.2022.122423](https://doi.org/10.1016/j.ijpharm.2022.122423)
13. Amin I, Rashid SM, Shubeena S, Hussain I, Ahmad SB, Mir MUR, Alshehri S, Bukhari SI, Mir TM, Rehman MU. TLR4/NFκB-Mediated Anti-Inflammatory and Antioxidative Effect of Hexanic and Ethanolic Extracts of *Curcuma longa* L. in Buffalo Mammary Epithelial Cells. *Separations*. 2022;9(12):414. [doi: 10.3390/separations9120414](https://doi.org/10.3390/separations9120414)
14. Astle KN, Mills AR, Medlin CG. Breaking the ice: Creating and maintaining an affirming practice setting for LGBTQIA+ pharmacy trainees. *JACCP: JOURNAL OF THE AMERICAN COLLEGE OF CLINICAL PHARMACY*. 2022;jac5.1703. [doi: 10.1002/jac5.1703](https://doi.org/10.1002/jac5.1703)
15. Aydogan F, Boga M, Khan SI, Zulfiqar F, Khan IA, Ali Z. Phytochemical investigation of *Teucrium pruinosum* and biological potential assessment of the isolated diterpenoids. *Biochemical Systematics and Ecology*. 2022;105:104545. [doi: 10.1016/j.bse.2022.104545](https://doi.org/10.1016/j.bse.2022.104545)
16. Bauman JL, Haines ST. Aligning the oversight of pharmacy education, training, and board certification: A modest proposal. *JACCP: JOURNAL OF THE AMERICAN COLLEGE OF CLINICAL PHARMACY*. 2022;jac5.1697. [doi: 10.1002/jac5.1697](https://doi.org/10.1002/jac5.1697)
17. Brownfield A, Williams CR, Cox CD, Davis LE, Haines SL, Rambaran KA, Ruble M, Smith MD. Moving a National Preceptor Development Platform From Design to Reality. *American Journal of Pharmaceutical Education*. 2022;86(6):8593. [doi: 10.5688/ajpe8593](https://doi.org/10.5688/ajpe8593)
18. Burbage SC, Parikh MA, Campbell PJ, Ramachandran S, Gatwood J, Ozawa S, Urick BY. Associations between pharmacy choice and influenza vaccination: Mail order vs community pharmacy users. *JMCP*. 2022;28(12):1379-91. [doi: 10.18553/jmcp.2022.28.12.1379](https://doi.org/10.18553/jmcp.2022.28.12.1379)
19. Burr SD, Dorroh CC, Stewart JA. Rap1a Activity Elevated the Impact of Endogenous AGEs in Diabetic Collagen to Stimulate Increased Myofibroblast Transition and Oxidative Stress. *International Journal of Molecular Sciences*. 2022;23(9):4480. [doi: 10.3390/ijms23094480](https://doi.org/10.3390/ijms23094480)
20. Cafer A, Rosenthal M. The dark side of moral outrage: Understanding the risks to long-term, meaningful community development work in higher learning. *Community Development*. 2022:1-14. [doi: 10.1080/15575330.2022.2126510](https://doi.org/10.1080/15575330.2022.2126510)

21. Calvert ML, Korgaonkar S, Ramachandran S, Sarver DE. Follow-Up Care After Maltreatment: Sociodemographic Associations With Timeliness in a Southern State. *Child Maltreat*. 2022;107755952211341. doi: [10.1177/10775595221134155](https://doi.org/10.1177/10775595221134155)
22. Carlucci R, Di Gresia G, Mediavilla MG, Cricco JA, Tekwani BL, Khan SI, Labadie GR. Expanding the scope of novel 1,2,3-triazole derivatives as new antiparasitic drug candidates. *RSC Medicinal Chemistry*. 2023. doi: [10.1039/D2MD00324D](https://doi.org/10.1039/D2MD00324D)
23. Carr A, Pittman E, Imeri H, Nasruddin S, Sparkmon W, Head KJ, Vivo S, Barnard M. Evaluation methods for vaccination campaigns on college campuses: A scoping review. *Vaccine: X*. 2022;12:100226 . doi: [10.1016/j.jvacx.2022.100226](https://doi.org/10.1016/j.jvacx.2022.100226)
24. Chandra S, Lata H, Wanas AS, Radwan MM, Majumdar CG, ElSohly MA. Effect of Vermicompost on Useable Biomass Yield, Cannabinoids and Terpenes Content of Indoor Grown Cannabis sativa L. *Plants*. *International Journal of Tropical Agriculture*. 2022; 40 (3-4): 205-213.
25. Cheng Z, Misra SK, Shami A, Sharp JS. Structural Analysis of Phosphorylation Proteoforms in a Dynamic Heterogeneous System Using Flash Oxidation Coupled In-Line with Ion Exchange Chromatography. *Analytical Chemistry*. 2022;94(51):18017-24. doi: [10.1021/acs.analchem.2c04365](https://doi.org/10.1021/acs.analchem.2c04365)
26. Cohen PA, Avula B, Katragunta K, Khan I. Levodopa Content of *Mucuna pruriens* Supplements in the NIH Dietary Supplement Label Database. *JAMA Neurology*. 2022;79(10):1085. doi: [10.1001/jamaneurol.2022.2184](https://doi.org/10.1001/jamaneurol.2022.2184)
27. Cole KD, Adcock KG, Earl SR, Babl RM, Parish RL, MacSorley R, Clayton JS, Paul I. Virtual interprofessional team care planning and communication for chronic pain management: An educational model. *Journal of Interprofessional Education & Practice*. 2022;29:100552. doi: [10.1016/j.xjep.2022.100552](https://doi.org/10.1016/j.xjep.2022.100552)
28. De Mel J, Hossain M, Shofolawe-Bakare O, Mohammad SA, Rasmussen E, Milloy K, Shields M, Roth EW, Arora K, Cueto R, Tang S-C, Wilson JT, Smith AE, Werfel TA. Dual-Responsive Glycopolymers for Intracellular Codelivery of Antigen and Lipophilic Adjuvants. *Mol Pharmaceutics*. 2022;19(12):4705-16. doi: [10.1021/acs.molpharmaceut.2c00750](https://doi.org/10.1021/acs.molpharmaceut.2c00750)
29. Din S, Hamid S, Yaseen A, Yattoo AM, Ali S, Shamim K, Mahdi WA, Alshehri S, Rehman MU, Shah WA. Isolation and Characterization of Flavonoid Naringenin and Evaluation of Cytotoxic and Biological Efficacy of Water Lilly (*Nymphaea mexicana* Zucc.). *Plants*. 2022;11(24):3588. doi: [10.3390/plants11243588](https://doi.org/10.3390/plants11243588)

30. Dodd MA, Haines SL, Maack B, Rosselli JL, Sandusky JC, Scott MA, Shilliday BB. ASHP Statement on the Role of Pharmacists in Primary Care. *American Journal of Health-System Pharmacy*. 2022;79(22):2070-8. doi: [10.1093/ajhp/zxac227](https://doi.org/10.1093/ajhp/zxac227)
31. Duke SO, Pan Z, Bajsa-Hirschel J, Boyette CD. The potential future roles of natural compounds and microbial bioherbicides in weed management in crops. *Advances in Weed Science*. 2022;40(spe1):e020210054. doi: [10.51694/AdvWeedSci/2022;40:seventy-five003](https://doi.org/10.51694/AdvWeedSci/2022;40:seventy-five003)
32. Elagamy A, Elghoneimy LK, Arafa RK, Pratap R. Synthesis of functionalized flavones from 3-halo-2-(methylthio)-4*H*-chromen-4-ones. *Tetrahedron Letters*. 2022;100:153882. doi: [10.1016/j.tetlet.2022.153882](https://doi.org/10.1016/j.tetlet.2022.153882)
33. Farooq MO, Razaq M, Shah FM. Plant diversity promotes species richness and community stability of arthropods in organic farming. *Arthropod-Plant Interactions*. 2022;16(6):593-606. doi: [10.1007/s11829-022-09920-1](https://doi.org/10.1007/s11829-022-09920-1)
34. Gochenauer AE, Dreger DL, Davis BW, Cook S, Barber KE, Ekenstedt KJ. *ABCG2* Polymorphisms and Predictive Fluoroquinolone Phototoxicity in Nondomestic Felids. *Genes (Basel)*. 2022;13(12):2178. doi: [10.3390/genes13122178](https://doi.org/10.3390/genes13122178)
35. Gul W, Ibrahim EA, Gul SW, Shahzadi I, Radwan M, Chandra S, Lata H, ElSohly M. Development and Validation of a GC-FID Method for the Quantitation of 20 Different Acidic and Neutral Cannabinoids. *Planta Medica*. 2022;a-1962-8165. doi: [10.1055/a-1962-8165](https://doi.org/10.1055/a-1962-8165)
36. Gunning KM, Zillich AJ, Ballou J, Danielson J, Devraj R, Dopp A, Fish H, Groves B, O'Neal KS, Pham K, Seo S-W, Silvia RJ, Steinkopf M, Bradley-Baker LR. The Report of the 2021-2022 Professional Affairs Standing Committee: Resource Guide for the Integration of Clinical Pharmacy Faculty in Professional Practice Settings. *American Journal of Pharmaceutical Education*. 2022;86(10):ajpe9447. doi: [10.5688/ajpe9447](https://doi.org/10.5688/ajpe9447)
37. Haeuser E, Serfes AL, Cork MA, Yang M, Abbastabar H, Abhilash ES, Adabi M, Adebayo OM, Adekanmbi V, Adeyinka DA, Afzal S, Ahinkorah BO, Ahmadi K, Ahmed MB, Akalu Y, Akinyemi RO, Akunna CJ, Alahdab F, Alanezi FM, Alanzi TM, Alene KA, Alhassan RK, Alipour V, Almasi-Hashiani A, Alvis-Guzman N, Ameyaw EK, Amini S, Amugsi DA, Ancuceanu R, Anvari D, Appiah SCY, Arabloo J, Aremu O, Asemahagn MA, Jafarabadi MA, Awedew AF, Quintanilla BPA, Ayanore MA, Aynalem YA, Azari S, Azene ZN, Darshan BB, Babalola TK, Baig AA, Banach M, Bärnighausen TW, Bell AW, Bhagavathula AS, Bhardwaj N, Bhardwaj P, Bhattacharyya K, Bijani A, Bitew ZW, Bohlouli S, Bolarinwa OA, Bolor A, Bozicevic I, Butt ZA, Cárdenas R, Carvalho F, Charan J, Chattu VK, Chowdhury MAK, Chu D-T, Cowden RG, Dahlawi SMA, Damiani G, Darteh EKM,

Darwesh AM, das Neves J, Weaver ND, De Leo D, De Neve J-W, Deribe K, Deuba K, Dharmaratne S, Dianatinasab M, Diaz D, Didarloo A, Djalalinia S, Dorostkar F, Dubljanin E, Duko B, El Tantawi M, El-Jaafary SI, Eshrati B, Eskandarieh S, Eyawo O, Ezeonwumelu IJ, Ezzikouri S, Farzadfar F, Fattahi N, Fauk NK, Fernandes E, Filip I, Fischer F, Foigt NA, Foroutan M, Fukumoto T, Gad MM, Gaidhane AM, Gebregiorgis BG, Gebremedhin KB, Getacher L, Ghadiri K, Ghashghaee A, Golechha M, Gubari MIM, Gugnani HC, Guimarães RA, Haider MR, Haj-Mirzaian A, Hamidi S, Hashi A, Hassanipour S, Hassankhani H, Hayat K, Herteliu C, Ho HC, Holla R, Hosseini M, Hosseinzadeh M, Hwang B-F, Ibitoye SE, Ilesanmi OS, Ilic IM, Ilic MD, Islam RM, Iwu CCD, Jakovljevic M, Jha RP, Ji JS, Johnson KB, Joseph N, Joshua V, Joukar F, Jozwiak JJ, Kalankesh LR, Kalhor R, Kamyari N, Kanchan T, Matin BK, Karimi SE, Kayode GA, Karyani AK, Keramati M, Khan EA, Khan G, Khan MN, Khatab K, Khubchandani J, Kim YJ, Kisa A, Kisa S, Kopec JA, Kosen S, Laxminarayana SLK, Koyanagi A, Krishan K, Defo BK, Kugbey N, Kulkarni V, Kumar M, Kumar N, Kusuma D, La Vecchia C, Lal DK, Landires I, Larson HJ, Lasrado S, Lee PH, Li S, Liu X, Maleki A, Malik P, Mansournia MA, Martins-Melo FR, Mendoza W, Menezes RG, Mengesha EW, Meretoja TJ, Mestrovic T, Mirica A, Moazen B, Mohamad O, Mohammad Y, Mohammadian-Hafshejani A, Mohammadpourhodki R, Mohammed S, Mohammed S, Mokdad AH, Moradi M, Moraga P, Mubarik S, Mulu GBB, Mwanri L, Nagarajan AJ, Naimzada MD, Naveed M, Nazari J, Ndejjo R, Negoi I, Ngalesoni FN, Nguefack-Tsague G, Ngunjiri JW, Nguyen CT, Nguyen HLT, Nnaji CA, Noubiap JJ, Nuñez-Samudio V, Nwatah VE, Oancea B, Odukoya OO, Olagunju AT, Olakunde BO, Olusanya BO, Olusanya JO, Bali AO, Onwujekwe OE, Orisakwe OE, Otstavnov N, Otstavnov SS, Owolabi MO, Mahesh PA, Padubidri JR, Pana A, Pandey A, Pandi-Perumal SR, Kan FP, Patton GC, Pawar S, Peprah EK, Postma MJ, Preotescu L, Syed ZQ, Rabiee N, Radfar A, Rafiei A, Rahim F, Rahimi-Movaghar V, Rahmani AM, Ramezanzadeh K, Rana J, Ranabhat CL, Rao SJ, Rawaf DL, Rawaf S, Rawassizadeh R, Regassa LD, Rezaei N, Rezapour A, Riaz MA, Ribeiro AI, Ross JM, Rubagotti E, Rumisha SF, Rwegerera GM, Moghaddam SS, Sagar R, Sahiledengle B, Sahu M, Salem MR, Kafil HS, Samy AM, Sartorius B, Sathian B, Seidu A-A, Shaheen AA, Shaikh MA, Shamsizadeh M, Shiferaw WS, Shin JI, Shrestha R, Singh JA, Skryabin VY, Skryabina AA, Soltani S, Sufiyan MaB, Tabuchi T, Tadesse EG, Taveira N, Tesfay FH, Thapar R, Tovani-Palone MR, Tsegaye GW, Umeokonkwo CD, Unnikrishnan B, Villafañe JH, Violante FS, Vo B, Vu GT, Wado YD, Waheed Y, Wamai RG, Wang Y, Ward P, Wickramasinghe ND, Wilson K, Yaya S, Yip P, Yonemoto N, Yu C, Zastrozhin MS, Zhang Y, Zhang Z-J, Hay SI, Dwyer-Lindgren L, on behalf of Local Burden of Disease sub-Saharan Africa HIVPC. Mapping age- and sex-specific HIV prevalence in adults in sub-Saharan Africa, 2000–2018. *BMC Med.* 2022;20(1):488. [doi: 10.1186/s12916-022-02639-z](https://doi.org/10.1186/s12916-022-02639-z)

38. Haines ST. Pills and potions: Mindsets influence our thoughts, behaviors, and physiologic responses to medications. JACCP: JOURNAL OF THE AMERICAN COLLEGE OF CLINICAL PHARMACY. 2022;5(10):1024-6. [doi: 10.1002/jac5.1695](https://doi.org/10.1002/jac5.1695)
39. Hegazy MM, Afifi WM, Metwaly AM, Radwan MM, Abd-Elraouf M, Mehany ABM, Ahmed E, Enany S, Ezzeldin S, Ibrahim AE, El Deeb S, Mostafa AE. Antitrypanosomal, Antitopoisomerase-I, and Cytotoxic Biological Evaluation of Some African Plants Belonging to Crassulaceae; Chemical Profiling of Extract Using UHPLC/QTOF-MS/MS. Molecules. 2022;27(24):8809. [doi: 10.3390/molecules27248809](https://doi.org/10.3390/molecules27248809)
40. Husain I, Dale OR, Martin K, Gurley BJ, Adams SJ, Avula B, Chittiboyina AG, Khan IA, Khan SI. Screening of medicinal plants for possible herb-drug interactions through modulating nuclear receptors, drug-metabolizing enzymes and transporters. Journal of Ethnopharmacology. 2023;301:115822. [doi: 10.1016/j.jep.2022.115822](https://doi.org/10.1016/j.jep.2022.115822)
41. Jenkins AB, Holley EA, Rogers C, Montgomery N, Pate A. Evaluating the Efficacy of 3 Recruitment Methods for Enrolling Patients in Chronic Care Management Services: A Pilot Study. Innovations in Pharmacy. 2022;13(4):13 [doi: 10.24926/iip.v13i4.5086](https://doi.org/10.24926/iip.v13i4.5086)
42. Jin J, Wu Y, Zhao Z, Wu Y, Zhou Y-d, Liu S, Sun Q, Yang G, Lin J, Nagle DG, Qin J, Zhang Z, Chen H-z, Zhang W, Sun S, Luan X. Small-molecule PROTAC mediates targeted protein degradation to treat STAT3-dependent epithelial cancer. JCI Insight. 2022;7(22):e160606. [doi: 10.1172/jci.insight.160606](https://doi.org/10.1172/jci.insight.160606)
43. Joyce LR, Youngblom MA, Cormaty H, Gartstein E, Barber KE, Akins RL, Pepperell CS, Palmer KL. Comparative Genomics of Streptococcus oralis Identifies Large Scale Homologous Recombination and a Genetic Variant Associated with Infection. mSphere. 2022;7(6):e00509-22. [doi: 10.1128/msphere.00509-22](https://doi.org/10.1128/msphere.00509-22)
44. Keck JM, Wingler MJB, Cretella DA, Vijayvargiya P, Wagner JL, Barber KE, Jhaveri TA, Stover KR. Approach to fever in patients with neutropenia: a review of diagnosis and management. Therapeutic Advances in Infection. 2022;9:20499361221138346. [doi: 10.1177/20499361221138346](https://doi.org/10.1177/20499361221138346)
45. Khan MIH, Mahdi F, Penfornis P, Akins NS, Hossain MI, Kim SJ, Sulochana SP, Adam AT, Tran TD, Tan C, Paolo Claudio P, Paris JJ, Le HV. Synthesis and biological evaluation of *tert*-butyl ester and ethyl ester prodrugs of L- $\gamma$ -methyleneglutamic acid amides for cancer. Bioorg Med Chem. 2023;78:117137. [doi: 10.1016/j.bmc.2022.117137](https://doi.org/10.1016/j.bmc.2022.117137)



46. Khan W, Wang Y-H, Dhammika Nanayakkara NP, Bandara Herath HMT, Chaurasiya ND, Tekwani BL, ElSohly MA, McChesney JD, Khan IA, Walker LA. Quantitative analysis of primaquine and its metabolites in human urine using liquid chromatography coupled with tandem mass spectrometry. *Journal of Chromatography B*. 2022;1213:123517. [doi: 10.1016/j.jchromb.2022.123517](https://doi.org/10.1016/j.jchromb.2022.123517)
47. Kim SB, Farrag M, Mishra SK, Misra SK, Sharp JS, Doerksen RJ, Pomin VH. Selective 2-desulfation of tetrasaccharide-repeating sulfated fucans during oligosaccharide production by mild acid hydrolysis. *Carbohydrate Polymers*. 2023;301:120316. [doi: 10.1016/j.carbpol.2022.120316](https://doi.org/10.1016/j.carbpol.2022.120316)
48. Kolimi P, Narala S, Youssef AAA, Nyavanandi D, Dudhipala N. A systemic review on development of mesoporous nanoparticles as a vehicle for transdermal drug delivery. *Nanotheranostics*. 2023;7(1):70-89. [doi: 10.7150/ntno.77395](https://doi.org/10.7150/ntno.77395)
49. Kommineni N, Butreddy A, Sainaga Jyothi VGS, Angsantikul P. Freeze-drying for the preservation of immunoengineering products. *iScience*. 2022;25(10):105127. [doi: 10.1016/j.isci.2022.105127](https://doi.org/10.1016/j.isci.2022.105127)
50. Kommineni N, Sainaga Jyothi VGS, Butreddy A, Raju S, Shapira T, Khan W, Angsantikul P, Domb AJ. SNAC for Enhanced Oral Bioavailability: An Updated Review. *Pharm Res*. 2022. [doi: 10.1007/s11095-022-03459-9](https://doi.org/10.1007/s11095-022-03459-9)
51. Lata H, Uchendu E, Chandra S, Wang Y-H, Chittiboyina A, ElSohly MA, Khan IA. Comparison of Three Cryoprotectants with V-Cryoplate Droplet Vitrification Technique for Cryopreservation of Shoot Tips of *Stevia rebaudiana* Bert. *International Journal of Tropical Agriculture*. 2022; 40 (3-4): 355-361.
52. Lee J, Wang M, Mondal G, Khan IA, Yates CR. Development of a GC/Q-ToF-MS Method Coupled with Headspace Solid-Phase Microextraction to Evaluate the In Vitro Metabolism of  $\beta$ -Caryophyllene. *Molecules*. 2022;27(21):7441. [doi: 10.3390/molecules27217441](https://doi.org/10.3390/molecules27217441)
53. Lepelletier F-X, Vandesquille M, Asselin M-C, Prenant C, Robinson AC, Mann DMA, Green M, Barnett E, Banister SD, Mottinelli M, Mesangeau C, McCurdy CR, Fricke IB, Jacobs AH, Kassiou M, Boutin H. Evaluation of  $^{18}\text{F}$ -IAM6067 as a sigma-1 receptor PET tracer for neurodegeneration *in vivo* in rodents and in human tissue: Erratum. *Theranostics*. 2022;12(12):5335-6. [doi: 10.7150/thno.76351](https://doi.org/10.7150/thno.76351)
54. Lesser MP, Sabrina Pankey M, Slattery M, Macartney KJ, Gochfeld DJ. Microbiome diversity and metabolic capacity determines the trophic ecology of the holobiont in Caribbean sponges. *ISME Communications*. 2022;2(1):112. [doi: 10.1038/s43705-022-00196-3](https://doi.org/10.1038/s43705-022-00196-3)

55. Liu Y, Gao P, Liang X, Zhang Y, Yu X, Xue X, Kockaya L, Pandey P, Doerksen RJ, Wang X, Yao G, Chu W, Chen X, Song S, Hamann MT, Li L. Prenylated flavonoids with significant anti-hepatoma activity from *Daphne giraldii* and effects on Fibroblast Growth Factor Receptor 1 (FGFR1). *European Journal of Medicinal Chemistry*. 2023;247:115006. [doi: 10.1016/j.ejmech.2022.115006](https://doi.org/10.1016/j.ejmech.2022.115006)
56. Manandhar A, Haron MH, Klein ML, Elokely K. Understanding the Dynamics of the Structural States of Cannabinoid Receptors and the Role of Different Modulators. *Life*. 2022;12(12):2137. [doi: 10.3390/life12122137](https://doi.org/10.3390/life12122137)
57. Mandati P, Dumpa N, Alzahrani A, Nyavanandi D, Narala S, Wang H, Bandari S, Repka MA, Tiwari S, Langley N. Hot-Melt Extrusion–Based Fused Deposition Modeling 3D Printing of Atorvastatin Calcium Tablets: Impact of Shape and Infill Density on Printability and Performance. *AAPS PharmSciTech*. 2022;24(1):13. [doi: 10.1208/s12249-022-02470-y](https://doi.org/10.1208/s12249-022-02470-y)
58. Marchese JA, Ferreira JFS, Moraes RM, Dayan FE, Rodrigues MFF, Jamhour J, Dallacorte LV. Crop phenology and floral induction in different *Artemisia annua* L. genotypes. *Industrial Crops and Products*. 2023;192:116118. [doi: 10.1016/j.indcrop.2022.116118](https://doi.org/10.1016/j.indcrop.2022.116118)
59. Markovich K, Wingler MJB, Stover KR, Barber KE, Wagner JL, Cretella DA. Analysis of the Clinical Impact of the BioFire FilmArray Meningitis Encephalitis Panel on Antimicrobial Use and Duration of Therapy at an Academic Medical Center. *Diseases*. 2022;10(4):110. [doi: 10.3390/diseases10040110](https://doi.org/10.3390/diseases10040110)
60. Marx AH, Cluck D, Green SB, Anderson DT, Stover KR, Chastain DB, Covington EW, Jones BM, Lantz E, Rausch E, Tu PJY, Wagner JL, White C, Bland CM, Bookstaver PB. A Baker's Dozen of Top Antimicrobial Stewardship Intervention Publications for Hospitalized Patients in 2021. *Open Forum Infectious Diseases*. 2022;9(12). [doi: 10.1093/ofid/ofac600](https://doi.org/10.1093/ofid/ofac600)
61. Migacz IP, Manfron J, Farago PV, Raman V, De Muñiz GIB, Nisgoski S. VIS/NIR spectra and color parameters according to leaf age of some Eucalyptus species: influence on their classification and discrimination. *Forest Syst*. 2022;31(2):e013. [doi: 10.5424/fs/2022312-19242](https://doi.org/10.5424/fs/2022312-19242)
62. Min L-J, Shen Z-H, Bajsa-Hirschel J, Cantrell CL, Han L, Hua X-W, Liu X-H, Duke SO. Synthesis, crystal structure, herbicidal activity and mode of action of new cyclopropane-1,1-dicarboxylic acid analogues. *Pesticide Biochemistry and Physiology*. 2022;188:105228. [doi: 10.1016/j.pestbp.2022.105228](https://doi.org/10.1016/j.pestbp.2022.105228)

63. Min L-J, Wang H, Bajsa-Hirschel J, Yu C-S, Wang B, Yao M-M, Han L, Cantrell CL, Duke SO, Sun N-B, Liu X-H. Novel Dioxolane Ring Compounds for the Management of Phytopathogen Diseases as Ergosterol Biosynthesis Inhibitors: Synthesis, Biological Activities, and Molecular Docking. *Journal of Agricultural and Food Chemistry*. 2022;70(14):4303-15. [doi: 10.1021/acs.jafc.2c00541](https://doi.org/10.1021/acs.jafc.2c00541)
64. Mir TM, Rehman MU, Ashfaq MK, Qamar W, Khan R, Ali A, Almuqbil M, Alshehri S, Sultana S. *Carum carvi* Modulates Acetaminophen-Induced Hepatotoxicity: Effects on TNF- $\alpha$ , NF- $\kappa$ B, and Caspases. *Applied Sciences*. 2022;12(21):11010. [doi: 10.3390/app122111010](https://doi.org/10.3390/app122111010)
65. Mohamed SM, Ross SA, Ahmed MAM. Diverse Glycosides from *Gardenia latifolia* with Antiviral Activity and Chemosystematic Significance. *Revista Brasileira de Farmacognosia*. 2022;32(6):1038-41. [doi: 10.1007/s43450-022-00335-w](https://doi.org/10.1007/s43450-022-00335-w)
66. Nyavanandi D, Mandati P, Narala S, Alzahrani A, Kolimi P, Pradhan A, Bandari S, Repka MA. Feasibility of high melting point hydrochlorothiazide processing via cocrystal formation by hot melt extrusion paired fused filament fabrication as a 3D-printed cocrystal tablet. *International Journal of Pharmaceutics*. 2022;628:122283. [doi: 10.1016/j.ijpharm.2022.122283](https://doi.org/10.1016/j.ijpharm.2022.122283)
67. Obegi Matundura J, Midiwo JO, Yenesew A, Omosa LK, Kumarihamy M, Zhao J, Wang M, Tripathi S, Khan S, Masila VM, Nchiozem-Ngnitedem V-A, Muhammad I. Antiplasmodial and antimicrobial activities of *ent*-abietane diterpenoids from the roots of *Suregada zanzibariensis*. *Natural Product Research*. 2022:1-5. [doi: 10.1080/14786419.2022.2158463](https://doi.org/10.1080/14786419.2022.2158463)
68. Oh JH, Martinez AD, Cao H, George GW, Cobb JS, Sharma P, Fassero LA, Arole K, Carr MA, Lovell KM, Shukla J, Saed MA, Tandon R, Marquart ME, Moores LC, Green MJ. Radio Frequency Heating of Washable Conductive Textiles for Bacteria and Virus Inactivation. *ACS Appl Mater Interfaces*. 2022;14(38):43732-40. [doi: 10.1021/acsami.2c11493](https://doi.org/10.1021/acsami.2c11493)
69. Pardeshi SR, Kole EB, Kapare HS, Chandankar SM, Shinde PJ, Boisa GS, Salgaonkar SS, Giram PS, More MP, Kolimi P, Nyavanandi D, Dyawanapelly S, Junnuthula V. Progress on Thin Film Freezing Technology for Dry Powder Inhalation Formulations. *Pharmaceutics*. 2022;14(12):2632. [doi: 10.3390/pharmaceutics14122632](https://doi.org/10.3390/pharmaceutics14122632)
70. Pruett JL, Pandelides AF, Keylon J, Willett KL, Showalter Otts S, Gochfeld DJ. Life-stage-dependent effects of multiple flood-associated stressors on a coastal foundational species. *Ecosphere*. 2022;13(12):e4343. [doi: 10.1002/ecs2.4343](https://doi.org/10.1002/ecs2.4343)

71. Psaras AM, Carty RK, Miller JT, Tumeay LN, Brooks TA. Indoloquinoline-Mediated Targeted Downregulation of KRAS through Selective Stabilization of the Mid-Promoter G-Quadruplex Structure. *Genes (Basel)*. 2022;13(8):1440. [doi: 10.3390/genes13081440](https://doi.org/10.3390/genes13081440)
72. Qrareya AN, Mahdi F, Kaufman MJ, Ashpole NM, Paris JJ. Age-related neuroendocrine, cognitive, and behavioral co-morbidities are promoted by HIV-1 Tat expression in male mice. *Aging*. 2022;14(13):5345-65. [doi: 10.18632/aging.204166](https://doi.org/10.18632/aging.204166)
73. Qrareya AN, Wise NS, Hodges ER, Mahdi F, Stewart JA, Paris JJ. HIV-1 Tat Upregulates the Receptor for Advanced Glycation End Products and Superoxide Dismutase-2 in the Heart of Transgenic Mice. *Viruses*. 2022;14(10):2191. [doi: 10.3390/v14102191](https://doi.org/10.3390/v14102191)
74. Ralston CY, Sharp JS. Structural Investigation of Therapeutic Antibodies Using Hydroxyl Radical Protein Footprinting Methods. *Antibodies*. 2022;11(4):71. [doi: 10.3390/antib11040071](https://doi.org/10.3390/antib11040071)
75. Ramachandran S, Zhang Y, Dunn TJ, Goswami S, Pittman E, Mann G, Cafer A. Impact of food affordability on diabetes-related preventable hospitalization. *Am J Manag Care*. 2022;28(11):574-80. [doi: 10.37765/ajmc.2022.89260](https://doi.org/10.37765/ajmc.2022.89260)
76. Roth DL, Bentley JP, Mukaz DK, Haley WE, Walston JD, Bandeen-Roche K. Transitions to Family Caregiving and Latent Variables of Systemic Inflammation Over Time. *Res Aging*. 2022:016402752210847. [doi: 10.1177/01640275221084729](https://doi.org/10.1177/01640275221084729)
77. Samy MN, Mahmoud BK, Shady NH, Abdelmohsen UR, Ross SA. Bioassay-Guided Fractionation with Antimalarial and Antimicrobial Activities of *Paeonia officinalis*. *Molecules*. 2022;27(23):8382. [doi: 10.3390/molecules27238382](https://doi.org/10.3390/molecules27238382)
78. Senapati S, Youssef AAA, Sweeney C, Cai C, Dudhipala N, Majumdar S. Cannabidiol Loaded Topical Ophthalmic Nanoemulsion Lowers Intraocular Pressure in Normotensive Dutch-Belted Rabbits. *Pharmaceutics*. 2022;14(12):2585. [doi: 10.3390/pharmaceutics14122585](https://doi.org/10.3390/pharmaceutics14122585)
79. Shankar VK, Police A, Ajjarapu S, Murthy SN. Development of silymarin topical formulation: *In vitro* and *ex vivo* dermal kinetics of silymarin. *International Journal of Pharmaceutics*. 2023;630:122431. [doi: 10.1016/j.ijpharm.2022.122431](https://doi.org/10.1016/j.ijpharm.2022.122431)
80. Sherman JJ. Novel Therapies Expand Hypogonadism Treatment Options. *US Pharmacist*. 2022;47(6):44-55.

81. Shi H-B, Zhai Z-W, Min L-J, Han L, Sun N-B, Cantrell CL, Bajsa-Hirschel J, Duke SO, Liu X-H. Synthesis and pesticidal activity of new 1,3,4-oxadiazole thioether compounds containing a trifluoromethylpyrazoyl moiety. *Res Chem Intermed*. 2022;48(11):4753-67. doi: [10.1007/s11164-022-04839-x](https://doi.org/10.1007/s11164-022-04839-x)
82. Tambe S, Jain D, Meruva SK, Rongala G, Juluri A, Nihalani G, Mamidi HK, Nukala PK, Bolla PK. Recent Advances in Amorphous Solid Dispersions: Preformulation, Formulation Strategies, Technological Advancements and Characterization. *Pharmaceutics*. 2022;14(10):2203. doi: [10.3390/pharmaceutics14102203](https://doi.org/10.3390/pharmaceutics14102203)
83. Tanabe P, Pampanin DM, Tiruye HM, Jørgensen KB, Hammond RI, Gadepalli RS, Rimoldi JM, Schlenk D. Relationships between Isomeric Metabolism and Regioselective Toxicity of Hydroxychrysenes in Embryos of Japanese Medaka (*Oryzias latipes*). *Environ Sci Technol*. 2023;57(1):539-48. doi: [10.1021/acs.est.2c06774](https://doi.org/10.1021/acs.est.2c06774)
84. Tittikpina NK, Katragunta K, Avula B, Ali Z, Khan IA. Strategy for the quality control of herbal preparations made of *Sarcocephalus latifolius*: Development and validation of a UHPLC-PDA method for quantification of angustoline and strictosamide and chemical profiling using LC-QToF. *Phytochemical Analysis*. 2023;34(1):105-26. doi: [10.1002/pca.3183](https://doi.org/10.1002/pca.3183)
85. Toma W, Paris JJ, Warncke UO, Nass SR, Caillaud M, McKiver B, Ondo O, Bagdas D, Bigbee J, Knapp PE, Hauser KF, Damaj MI. Persistent sensory changes and sex differences in transgenic mice conditionally expressing HIV-1 Tat regulatory protein. *Experimental Neurology*. 2022;358:114226. doi: [10.1016/j.expneurol.2022.114226](https://doi.org/10.1016/j.expneurol.2022.114226)
86. Vadhariya A, Sharma M, Abughosh SM, Birtcher KK, Chen H, Mohan A, Johnson ML. Patterns of Lipid Lowering Therapy Use Among Older Adults in a Managed Care Advantage Plan in the United States. *Journal of Pharmacy Practice*. 2022:089719002211288. doi: [10.1177/08971900221128850](https://doi.org/10.1177/08971900221128850)
87. Wang M, Cantrell CL, Mathews ST, Paudel P, Lee J, Mentreddy SR. Agronomy, Chemical Analysis, and Antidiabetic Activity of Basil (*Ocimum* Species). *ACS Food Sci Technol*. 2022;2(8):1243-56. doi: [10.1021/acsfoodscitech.2c00100](https://doi.org/10.1021/acsfoodscitech.2c00100)
88. Xiang Y, Ji M, Wu L, Lv L, Liang Q, Deng R, Deng Z, Liu X, Ren L, Feng X, He J. Rosmarinic Acid Prevents Cisplatin-Induced Liver and Kidney Injury by Inhibiting Inflammatory Responses and Enhancing Total Antioxidant Capacity, Thereby Activating the Nrf2 Signaling Pathway. *Molecules*. 2022;27(22):7815. doi: [10.3390/molecules27227815](https://doi.org/10.3390/molecules27227815)

89. Yang X, Yuan Z, Lu W, Yang C, Wang M, Tripathi R, Fultz Z, Tan C, Wang B. De Novo Construction of Fluorophores via CO Insertion-Initiated Lactamization: A Chemical Strategy toward Highly Sensitive and Highly Selective Turn-On Fluorescent Probes for Carbon Monoxide. *J Am Chem Soc.* 2023;145(1):78-88. [doi: 10.1021/jacs.2c07504](https://doi.org/10.1021/jacs.2c07504)
90. Yao C-L, Wei W-L, Zhang J-Q, Bi Q-R, Li J-Y, Khan I, Bauer R, Guo D-A. Traditional Chinese medicines against COVID-19: A global overview. *World J Tradit Chin Med.* 2022;8(3):279. [doi: 10.4103/2311-8571.353502](https://doi.org/10.4103/2311-8571.353502)
91. Zhou B, Alania Y, Reis M, Jing S-X, McAlpine JB, Bedran-Russo AK, Chen S-N, Ferreira D, Pauli GF. Seco B-Type Oligomers from *Pinus massoniana* Expand the Procyanidin Chemical Space and Exhibit Dental Bioactivity. *Journal of Natural Products.* 2022;85(12):2753-68. [doi: 10.1021/acs.jnatprod.2c00664](https://doi.org/10.1021/acs.jnatprod.2c00664)
92. Zhussupova A, Zhumaliyeva G, Ogay V, Issabekova A, Ross SA, Zhusupova GE. Immunomodulatory Effects of Plant Extracts from *Salvia deserta* Schang. and *Salvia sclarea* L. *Plants.* 2022;11(20):2690. [doi: 10.3390/plants11202690](https://doi.org/10.3390/plants11202690)
93. Zulfiqar F, Ali A, Ali Z, Khan IA. Bioassay-Guided Isolation of Iridoid Glucosides from *Stenaria nigricans*, Their Biting Deterrence against *Aedes aegypti* (Diptera: Culicidae), and Repellency Assessment against Imported Fire Ants (Hymenoptera: Formicidae). *Molecules.* 2022;27(20):7053. [doi: 10.3390/molecules27207053](https://doi.org/10.3390/molecules27207053)
94. Zulfiqar F, Ali Z, Viljoen AM, Chittiboyina AG, Khan IA. Flavonoid glycosides and ellagic acid cognates from defatted African mango (*Irvingia gabonensis*) seed kernel. *Natural Product Research.* 2022:1-10. [doi: 10.1080/14786419.2022.2140151](https://doi.org/10.1080/14786419.2022.2140151)

## Book Selections

1. Balachandran P. Ayurvedic Knowledge Inspired Approach to Modern Drug Discovery. In: Amalraj A, Kuttappan S, Varma K, editors. *Chemistry, Biological Activities and Therapeutic Applications of Medicinal Plants in Ayurveda: The Royal Society of Chemistry*; 2022. p. 325-73. [doi: 10.1039/9781839166211-00325](https://doi.org/10.1039/9781839166211-00325)
2. Dureja H, Murthy N, Wich P, Dua, K, editors. *Drug Delivery Systems for Metabolic Disorders.* Elsevier; 2022.
3. Ji N, Tan C. Chapter 14 - Thermosensitive liposomes for targeted breast cancer therapy. In: Paliwal SR, Paliwal R, editors. *Targeted Nanomedicine for Breast Cancer Therapy.* Elsevier; 2022. p. 351-68. [doi: 10.1016/B978-0-12-824476-0.00010-3](https://doi.org/10.1016/B978-0-12-824476-0.00010-3)

4. Kalbande D, Majumdar A, Dorik P, Prajapati P, Deshpande S. Deep Learning Approach for Early Diagnosis of Jaundice. In: Gupta D, Khanna A, Hassanien AE, Anand S, Jaiswal A, editors. International Conference on Innovative Computing and Communications. 492. Singapore: Springer Nature Singapore; 2023. p. 387-95. [doi: 10.1007/978-981-19-3679-1\\_30](https://doi.org/10.1007/978-981-19-3679-1_30)
5. Pomin VH, Rajarathnam K. NMR Methods for Characterization of Glycosaminoglycan–Chemokine Interactions. In: Lucas AR, editor. Chemokine-Glycosaminoglycan Interactions. 2597. New York, NY: Springer US; 2023. p. 143-57. [doi: 10.1007/978-1-0716-2835-5\\_12](https://doi.org/10.1007/978-1-0716-2835-5_12)