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2023

## Research News, Publications, 2023, Volume 2

Soumyajit Majumdar

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**Interoffice Memorandum  
School of Pharmacy  
Office of Research & Graduate Programs  
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To: All School of Pharmacy and USDA personnel

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

Date: July 6, 2023

Publications which have appeared between April 1 and June 30, 2023:

1. Adcock KG, Earl S. Interprofessional education tracks: One schools response to common IPE barriers. *Currents in Pharmacy Teaching and Learning*. 2023;15(5):528-33. [doi: 10.1016/j.cptl.2023.05.007](https://doi.org/10.1016/j.cptl.2023.05.007)
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3. Ajjarapu S, Deboyace K, Sarabu S, Shankar VK, Rangappa S, Wildfong PLD, Narasimha Murthy S. Metronidazole crystal patterns formed during the metamorphosis of topical carbopol gels. *Journal of Excipients and Food Chemicals*. 2023;14(1):44-56
4. Ali A, Mir GJ, Ayaz A, Maqbool I, Ahmad SB, Mushtaq S, Khan A, Mir TM, Rehman MU. In silico analysis and molecular docking studies of natural compounds of *Withania somnifera* against bovine NLRP9. *Journal of Molecular Modeling*. 2023;29(6). [doi: 10.1007/s00894-023-05570-z](https://doi.org/10.1007/s00894-023-05570-z)

5. Avula B, Katragunta K, Adams SJ, Wang YH, Chittiboyina AG, Khan IA. Applicability of LC-QToF and Microscopical Tools in Combating the Sophisticated, Economically Motivated Adulteration of Poppy Seeds. *Foods*. 2023;12(7). [doi: 10.3390/foods12071510](https://doi.org/10.3390/foods12071510)
6. Barbosa V, de Almeida VP, Manfron J, Raman V, de Oliveira CF, Betim FCM, Cruz LS, Swiech JND, de Oliveira VB, de Fátima Padilha J, Miguel OG. Antioxidant Activity and Determination of Phenolic Compounds, Total Flavonoids and Hispidulin in *Baccharis erioclada* DC. *Brazilian Archives of Biology and Technology*. 2023;66. [doi: 10.1590/1678-4324-2023220459](https://doi.org/10.1590/1678-4324-2023220459)
7. Bidóia VS, Neto JCDS, Maciel CDDG, Tropaldi L, Carbonari CA, Duke SO, Carvalho LBD. Lack of Significant Effects of Glyphosate on Glyphosate-Resistant Maize in Different Field Locations. *Agronomy*. 2023;13(4). [doi: 10.3390/agronomy13041071](https://doi.org/10.3390/agronomy13041071)
8. Brewster PR, Mohammad Ishraq Bari S, Walker GM, Werfel TA. Current and future directions of drug delivery for the treatment of mental illnesses. *Advanced Drug Delivery Reviews*. 2023;197. [doi: 10.1016/j.addr.2023.114824](https://doi.org/10.1016/j.addr.2023.114824)
9. Chae HS, Dale O, Mir TM, Ashfaq MK, Avula B, Walker LA, Khan IA, Khan SI. Juniper Berries Regulate Diabetes and Obesity Markers Through Modulating PPAR $\alpha$ , PPAR $\gamma$ , and LXR: In Vitro and In Vivo Effects. *Journal of Medicinal Food*. 2023;26(5):307-18. [doi: 10.1089/jmf.2022.0146](https://doi.org/10.1089/jmf.2022.0146)
10. Chastain DB, Stover KR. Urgent need to address infectious diseases due to immunosuppressive therapies. *Therapeutic Advances in Infection*. 2023;10. [doi: 10.1177/20499361231168512](https://doi.org/10.1177/20499361231168512)
11. Chung S, Zhang P, Repka MA. Fabrication of timed-release indomethacin core-shell tablets for chronotherapeutic drug delivery using dual nozzle fused deposition modeling (FDM) 3D printing. *European Journal of Pharmaceutics and Biopharmaceutics*. 2023;188:254-64. [doi: 10.1016/j.ejpb.2023.05.015](https://doi.org/10.1016/j.ejpb.2023.05.015)
12. Duke SO. Why are there no widely successful microbial bioherbicides for weed management in crops? *Pest Management Science*. 2023. [doi: 10.1002/ps.7595](https://doi.org/10.1002/ps.7595)
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14. Farrag M, Dwivedi R, Sharma P, Kumar D, Tandon R, Pomin VH. Structural requirements of *Holothuria floridana* fucosylated chondroitin sulfate oligosaccharides in anti-SARS-CoV-2 and anticoagulant activities. *PLOS ONE*. 2023;18(5 MAY). [doi: 10.1371/journal.pone.0285539](https://doi.org/10.1371/journal.pone.0285539)

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19. Hassanein EHM, Abd El-Maksoud MS, Ibrahim IM, Abd-alhameed EK, Althagafy HS, Mohamed NM, Ross SA. The molecular mechanisms underlying anti-inflammatory effects of galangin in different diseases. *Phytotherapy Research*. 2023. doi: [10.1002/ptr.7874](https://doi.org/10.1002/ptr.7874)
20. He P, Shi D, Li Y, Xia K, Kim SB, Dwivedi R, Farrag M, Pomin VH, Linhardt RJ, Dordick JS, Zhang F. SPR Sensor-Based Analysis of the Inhibition of Marine Sulfated Glycans on Interactions between Monkeypox Virus Proteins and Glycosaminoglycans. *Marine Drugs*. 2023;21(5). doi: [10.3390/md21050264](https://doi.org/10.3390/md21050264)
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29. Mahana A, Hammada HM, Saad MMG, Radwan MM, EISohly MA, Ghareeb DA, Harraz FM, Shawky E. Bio-guided isolation of potential anti-inflammatory constituents of some endophytes isolated from the leaves of ground cherry (*Physalis pruinosa* L.) via *ex-vivo* and *in-silico* studies. *BMC Complementary Medicine and Therapies*. 2023;23(1). [doi: 10.1186/s12906-023-03934-9](https://doi.org/10.1186/s12906-023-03934-9)
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31. Matadh AV, Jakka D, Pragathi SG, Poornima K, Shivakumar HN, Murthy RN, Rangappa S, Shivanna M, Murthy SN. Polymer coated polymeric microneedles for intravitreal delivery of dexamethasone. *Experimental Eye Research*. 2023;231. [doi: 10.1016/j.exer.2023.109467](https://doi.org/10.1016/j.exer.2023.109467)
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39. Pandey P, Neal WM, Zulfiqar F, Ali Z, Khan IA, Ferreira D, Chittiboyina AG. A combined experimental and computational chiroptical approach to establish the biosynthesis and absolute configuration of licochalcone L. *Phytochemistry*. 2023;212. [doi: 10.1016/j.phytochem.2023.113732](https://doi.org/10.1016/j.phytochem.2023.113732)
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43. Raman V, Wang YH, Saroja SG, Zhao J, Manfron J, Avula B, Chittiboyina AG, Khan IA. Characterization of *Calea ternifolia* and its Adulterant *Chromolaena odorata* Using Macro-Microscopy, HPTLC and UHPLC-UV-MS. *Revista Brasileira de Farmacognosia*. 2023. [doi: 10.1007/s43450-023-00411-9](https://doi.org/10.1007/s43450-023-00411-9)
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49. Shukla A, Dumpa NR, Thakkar R, Shettar A, Ashour E, Bandari S, Repka MA. Influence of Poloxamer on the Dissolution and Stability of Hot-Melt Extrusion–Based Amorphous Solid Dispersions Using Design of Experiments. *AAPS PharmSciTech*. 2023;24(5). doi: [10.1208/s12249-023-02562-3](https://doi.org/10.1208/s12249-023-02562-3)
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51. Srinivasan P, Almutairi M, Youssef AAA, Almotairy A, Bandari S, Repka MA. Numerical simulation of five different screw configurations used during the preparation of hot-melt extruded Kollidon® and Soluplus® based amorphous solid dispersions containing indomethacin. *Journal of Drug Delivery Science and Technology*. 2023;85. doi: [10.1016/j.jddst.2023.104561](https://doi.org/10.1016/j.jddst.2023.104561)
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54. Vathy R, Rosenthal M, Ballou JM. College student behaviors and preferences in community pharmacies. *Journal of American College Health*. 2023. doi: [10.1080/07448481.2023.2217725](https://doi.org/10.1080/07448481.2023.2217725)
55. Wang YH, Mondal G, Khan W, Gurley BJ, Yates CR. Development of a liquid chromatography-tandem mass spectrometry (LC–MS/MS) method for characterizing pomegranate extract pharmacokinetics in humans. *Journal of Pharmaceutical and Biomedical Analysis*. 2023;233. doi: [10.1016/j.jpba.2023.115477](https://doi.org/10.1016/j.jpba.2023.115477)

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59. Wontor K, Cizdziel JV, Scircle A, Gochfeld DJ, Pandelides AF. Prevalence and Distribution of Microplastics in Oysters from the Mississippi Sound. *Journal of Contemporary Water Research & Education*. 2023;177(1):31-45. [doi: 10.1111/j.1936-704X.2022.3379.x](https://doi.org/10.1111/j.1936-704X.2022.3379.x)
60. Zhang J, Agarwal AK, Feng Q, Tripathi SK, Khan IA, Pugh ND. Identification of Botanicals that Unmask  $\beta$ -Glucan from the Cell Surface of an Opportunistic Fungal Pathogen. *Journal of Dietary Supplements*. 2023. [doi: 10.1080/19390211.2023.2201355](https://doi.org/10.1080/19390211.2023.2201355)

## Book Selections

1. Barreto DLC, de Carvalho CR, de Almeida Alves TM, Zani CL, Cantrell CL, Duke SO, Rosa LH. Influence of genetics on the secondary metabolism of fungi. In: Carocho M, Heleno SA, Barros L, editors. *Natural Secondary Metabolites: From Nature, Through Science, to Industry*: Springer International Publishing; 2023. p. 687-704. [doi.org/10.1007/978-3-031-18587-8\\_22](https://doi.org/10.1007/978-3-031-18587-8_22)
2. de Souza LMD, Barreto DLC, da Costa Coelho L, Teixeira EAA, Gonçalves VN, de Paula Muzetti Ribeiro J, Rabelo NG, Alves SEO, da Silva MK, Martins LBM, Cantrell CL, Duke SO, Rosa LH. Fungal Biosurfactants: Applications in Agriculture and Environmental Bioremediation Processes. In: Marcelino PRF, da Silva SS, Lopez AO, editors. *Biosurfactants and Sustainability: From Biorefineries Production to Versatile Applications*: Wiley; 2023. p. 243-54. [doi: 10.1002/9781119854395.ch12](https://doi.org/10.1002/9781119854395.ch12)
3. EISOhly MA, editor. *Cannabis chemistry and biology: Fundamentals*. De Gruyter; 2023. [doi: 10.1515/9783110718362-203](https://doi.org/10.1515/9783110718362-203)
4. EISOhly MA, Gul SW, Gul W. A comprehensive review of cannabis phytocannabinoids. In: EISOhly MA, editor. *Cannabis Chemistry and Biology: Fundamentals*: De Gruyter; 2023. p. 63-90. [doi: 10.1515/9783110718362-003](https://doi.org/10.1515/9783110718362-003)



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6. Gul W, Gul SW, EISOhly MA. The non-cannabinoid constituents of *Cannabis sativa*. In: EISOhly MA, editor. *Cannabis Chemistry and Biology: Fundamentals*: De Gruyter; 2023. p. 91-110.
7. Gul W, Ibrahim EA, Gul SW, EISOhly MA. Total synthesis of the major phytocannabinoids. In: EISOhly MA, editor. *Cannabis Chemistry and Biology: Fundamentals*: De Gruyter; 2023. p. 111-140.
8. Lata H, Chandra S, EISOhly MA. Cannabis: Botany and biomass production. In: EISOhly MA, editor. *Cannabis Chemistry and Biology: Fundamentals*: De Gruyter; 2023. p. 27-62.
9. Radwan MM, Wanas AS, Chandra S, EISOhly MA. Biosynthesis of cannabis constituents. In: EISOhly MA, editor. *Cannabis Chemistry and Biology: Fundamentals*: De Gruyter; 2023. p. 141-64.
10. Sawyer BJ, Khan MIH, Le HV. Antimalarial drugs. In: Acharya PC, Kurosu M, editors. *Medicinal Chemistry of Chemotherapeutic Agents: a Comprehensive Resource of Anti-infective and Anti-cancer Drugs*: Elsevier; 2023. p. 363-96. [doi: 10.1016/B978-0-323-90575-6.00007-7](https://doi.org/10.1016/B978-0-323-90575-6.00007-7)
11. Wanas AS, Radwan MM, Chandra S, Majumdar CG, EISOhly MA. Identification and analysis of cannabis. In: EISOhly MA, editor. *Cannabis Chemistry and Biology: Fundamentals*: De Gruyter; 2023. p. 165-98.