



PHARMSCI DEPARTMENT NEWSLETTER FEBRUARY 2025

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The purpose of the newsletter is to announce the achievements of faculty in their research, teaching, and service in a timely and succinct manner. The newsletter is meant to be a simple listing of your achievements and newsworthy events, so detailed elaborations are not necessary.

The Department newsletter is designed to be complementary to the School of Pharmacy's Event Notification. Please continue submitting your newsworthy events through the School of Pharmacy's Event Notification via the School of Pharmacy website:

[View faculty resources.](#)

PUBLICATIONS

1. Optimization and calibration of 384-well kinetic Ca²⁺ mobilization assays for the human transient receptor potential cation channels TRPM8, TRPV1, and TRPA1. Close DA, Journigan VB, **Johnston PA**. SLAS Discov. 2024 Dec 31; 30:100207. doi: 10.1016/j.slasd.2024.100207.
2. Miniaturization and characterization of patient derived hepatocellular carcinoma tumor organoid cultures for cancer drug discovery applications. Close DA, **Johnston PA**. SLAS Discov. 2024 Dec 9; 30:100201. doi: 10.1016/j.slasd.2024.100201. Zhang, Z., Luo, Z., Huang, H., Huang, Y., Xu, J., Liu, X.,

3. Zhang, W., *Li, S, and *Sun, J. YAP/TAZ inhibitor-based drug delivery system for selective tumor accumulation and cancer combination therapy. *Biomacromolecules* 2025; 26: 266-278.
4. Tarter RE, Reynolds M, **Vanyukov M**, Kirisci L. (2023) Physical inactivity during adolescence heightens risk for cannabis use disorder in adulthood. *Exp Clin Psychopharmacol.* 31(3):704-714. doi: 10.1037/pha0000593. Epub 2022 Sep 1. PMID: 36048110.
5. **Vanyukov, M. M.** and Kirisci, L. (2024) There is no stigmatization of substance use. *Addiction Research & Theory*, pp. 1–3. doi: 10.1080/16066359.2024.2433555. Epub: 2024 Nov 28
6. Zhu J, Qin FY, Lei S, Gu R, Qi Q, Lu J, Anderson KE, Wipf P, **Ma X**. Inhibition of ABCG2 prevents phototoxicity in a mouse model of erythropoietic protoporphyria. *Nat Commun.* 2024 Dec 4;15(1):10557. doi: 10.1038/s41467-024-54969-6. PMID: 39632884
7. Duan, Y.; **Wang, Junmei**, Cieplak, P.; Luo, R. Refinement of Atomic Polarizabilities for a Polarizable Gaussian Multipole Force Field with Simultaneous Considerations of Both Molecular Polarizability Tensors and In-Solution Electrostatic Potentials. *J. Chemical Information & Modeling*, **2025**, ASAP.
<https://pubs.acs.org/doi/10.1021/acs.jcim.4c02175>
8. Kim JW, Tung HC, Yang B, Pant R, Guan X, Feng Y, **Xie W**. Heme-thiolate monooxygenase cytochrome P450 1B1, an old dog with many new tricks. *Pharmacol Rev* (Accepted)

GRANTS

Paul Johnston

Project: Developmental Pilot Program Award UPMC Hillman Cancer Center (Wipf & Johnston Co-PIs)

Funding Period: 08/01/24 to 07/31/25

Title: Medicinal Chemistry Optimization of Androgen Receptor Allosteric Modulators to Improve Prostate Cancer Therapy (Wipf & Johnston Co-PIs)

Funding Agency: NIH grant P30CA047904 awarded to UPMC Hillman Cancer Center

Paul Johnston

Project number: 1R01CA297848-01 (Johnston Communicating PI, Smithgall & Andreotti, Co-PIs)

Funding Period: 01/01/25 to 12/31/27

Title: “Cell-Based HTS Campaign to Identify Negative Allosteric Modulators of the Leukemia-associated Tyrosine Kinase, BTK”.

Funding Agency: NIH/NCI

Song Li

Project number: 1R01CA295774-01

Funding Period: 01/01/25-12/31/29

Title: Targeting iRhom to Improve Colon Cancer Immunochemotherapy

Funding Agency: National Institute of Health (NIH)

STUDY SECTION

Song Li: 2024 VA Research Review Panel on Immunology & Dermatology (IMMA) (November 26, 2024) (Co-chair)

Song Li: 2025 Breast Cancer Research Program (BCRP) Ad-CET (January 14, 2025) (Chair)