

Magid Abou-Gharbia, Ph.D., FRSC

Laura Carnell Professor and Founding Director of the Moulder Center for Drug Discovery Research, Department of Pharmaceutical Sciences

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[MAGID ABOU-GHARBIA - Google Scholar](#)

<https://www.researchgate.net/profile/Magid-Abou-Gharbia>

Teaching & Academic Contributions

- **PharmD Courses:**
 - **PHRM 251:** Med.Chem III
 - **PHRM 152:** Med.Chem II
- **Graduate Teaching:**
 - **PHSC 8128:** *Principles of Drug Discovery*
 - **PHSC 8009:** Advanced Medicinal Chemistry I
 - **PHSC 8051:** *Graduate Seminar*
 - **PHSC 8125:** *Journal Club*
 - **PhD Student Advisor:** 1 current doctoral PharmSci students (TUSP)
1 current doctoral QA/RA student (TUSP)
1 Current doctoral Chemistry Student (CST)
 - **Postgraduate Advisor:** 1 Current Postdoctoral Fellow

Research Focus & Interests

Phenotypic and Target-Based Drug Discovery Approaches for discovering innovative Therapeutics:

- Use of receptor homology, bioisosteric replacement strategies, rational and structure-based drug design approaches
- Utilizing natural products as a unique resource for discovering innovative therapeutics.
- Applying enabling technology platforms and in vitro ADME to evaluate drug-like properties of all discovered molecules to ensure clinical effectiveness of drug candidates.
- Design of chemical probes in support of translational medicine

Key Interests: Phenotypic and Target-based Drug Discovery approaches to discover innovative therapeutics for various diseases including drug addiction, chronic pain and neuropathic pain. My Research Laboratories are focusing on the **Glutamate Transporters-1 (GLT-1) Enhancers Project**. GLT-1 is the most critical determinant of

glutamate clearance in the brain, and our research contributions have opened a new chapter in our ability to target GLT-1 for clinical uses. We discovered a drug-like, brain-penetrant GLT-1 enhancer MC-100093 that has impacted several groups' research in Cocaine and alcohol addiction and treatment of alcohol use disorders including anxiety and depression, and cerebral palsy.

Selected Awards and Honors:

Outstanding Faculty Service Award, Temple University Faculty Senate (2022)

Heroes of Chemistry Award: Awarded by the American Chemical Society for Discovery of Effexor (2014)

PA Bio Award & Educator Researcher of the Year Award: Awarded by Philadelphia Business Journal (2014)

Grand Hamadan Award: Awarded by the Hamadan Award Office, UAE, for excellence in Medical Sciences (2014)

Select Publications and Patents (From 139 Publications & 140 Patents)

Publications:

1. W. Childers, K. Elokely and M. Abou-Gharbia, *Dezocine and Addiction: Friend or Foe?*, Pharmaceuticals, 18 (3), 386, **2025**.
2. Hanghang Zhang, Chen Huang, John Gordon, Sijia Yu, George Morton, Wayne Childers, **Magid Abou-Gharbia**, Yi Zhang, Jaroslav Jelinek and Jean-Pierre J. Issa, MC180295 is a highly potent and selective CDK9 inhibitor with preclinical in vitro and in vivo efficacy in cancer, *Clinical Epigenetics*, 6:3, **2024**.
3. Leon BE, Peyton L, Essa H, Wieden T, Marion N, Childers WE, **Abou-Gharbia M**, Choi D-S, MC-100093, reduces sex-specific ethanol preference and depressive-like behaviors in mice, Neuropharmacol., 232, 109515, **2023**.
4. Alhadad H, Wong W, **Abou-Gharbia M**, Childers W, Melenski E, Bell RL, Sari Y, Effects of a Novel beta lactam compound MC-100093 on the expression of glutamate transporters/receptors and ethanol drinking behavior of alcohol preferring rats, J. Pharmacol .Exp. Ther., 383, 208–216, **2022**.
5. "I'll be Back": The Resurrection of Dezocine, Wayne Childers W, **Abou-Gharbia M**, ACS Med.Chem. Lett., 12, 961-968, **2021**.

US Patents:

<https://patents.justia.com/inventor/magid-a-abou-gharbia>

5-Hydroxytryptamine receptor 7 activity modulators and their method of use, D. J. Canney, B. E. Blass, R. Gao, M. Abou-Gharbia **US 11,897,870 (2024)**

Functionalized N,N-dialkylamino phenyl ethers and their method of use

M. A. Abou-Gharbia, W. E. Childers, M. A. Jacobson, R. Fan, R. L. Martinez, **US 11873267 (2024)**.

Administrative & Service Roles

- Director, Moulder Center for Drug Discovery School of Pharmacy (2008-2020)
- Associate Dean for Research: School of Pharmacy (2009-2019)
- Joint Professor appointment: College of Science & Technology (CST) (2009-2009-Present)
- Tenure Track Committee: School of Pharmacy (2020-Present)
- Honor Council Committee: School of Pharmacy (2020-Present)
- CST Board of Visitor (BOV): College of Science and Technology (2009-Present)
- Senate Personnel Committee: Temple University Senate (2023-Present)
- Research misconduct Committee: Office of Vice President of Research (OVPR) (2024-present)

Professional Headshot (*Image Placeholder*)