

Aidong Qi, Ph. D & MD

Department of Pharmacology
Warren Center for Neuroscience Drug Discovery
Vanderbilt University
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Education:

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| Sep. 1994-Dec. 1997 | Doctor of Philosophy
Department of Pharmacology,
Chinese University of Hong Kong |
| Sep. 1987-July 1990 | Master of Medicine
Department of Pharmacology,
Shandong University,
Shandong, China |
| Sep. 1980-July 1985 | Bachelor of Medicine (equivalent to MD in US)
Department of Clinical Medicine,
Binzhou Medical College,
Shandong, China |

Academic Appointments:

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|---|---|
| June, 2015-present | Research Assistant Professor
Department of Pharmacology
Warren Center for Neuroscience Drug Discovery,
Vanderbilt University |
| Aug, 2015- May, 2019 | Research Assistant Professor
Department of Pediatrics,
Vanderbilt University Medical Center |
| July, 2012-July, 2015 | Research Assistant Professor
Department of Biochemistry,
Vanderbilt University |
| Jan, 2002-June, 2012
Oct, 1997-Dec, 2001 | Research Assistant Professor
Postdoctoral Research fellow,
Department of Pharmacology,
University of North Carolina at Chapel Hill |

Publications:

I. Articles in referred journals:

1. Seunghyi Kook, **Aidong Qi**, Ping Wang, Shufang Meng, Peter Gulleman, Lisa Young, and Susan Guttentag (2018) Gene-edited MLE-15 cells as a model for the Hermansky Pudlak syndromes. *Am J Respir Cell Mol Biol*. 2018 May;**58**(5): 566-574
Published as “Major Technical Advances”
2. Tatiana Y. Hargrove, Laura Friggeri, Zdzislaw Wawrzak, **Aidong Qi**, William J. Hoekstra, John D. York, Frederic P. Guengerich, and Galina. I. Lepesheva. (2017) Structure-function and inhibition of sterol 14 α -demethylase (CYP51) from *Candida albicans*. Complexes with posaconazole and the tetrazole-based drug candidate VT-1161. *Journal of Biological Chemistry*. **292**(16): 6728 –6743
3. Young LR, Gulleman PM, Short CW, Tanjore H, Sherrill T, **Qi A**, McBride AP, Zaynagetdinov R, Benjamin JT, Lawson WE, Novitskiy SV, Blackwell TS. (2016) Epithelial-macrophage interactions determine pulmonary fibrosis susceptibility in Hermansky-Pudlak syndrome. *Journal of Clinical Investigation Insight*. 2016 Oct 20;**1**(17): e88947
4. Hong NH, **Qi A**, Weaver AM. (2015) PI(3,5)P2 controls endosomal branched actin dynamics by regulating cortactin-actin interactions. *Journal of Cell Biology* **210**(5):753-69
Highlighted on *Journal of Cell Biology* 2015, **210**(5):682
Selected for Cover page in *Journal of Cell Biology* 2015, **210**(5) issue
5. **Qi AD**, Harden TK and Nicholas RA. (2013) Is GPR17 a P2Y receptor? Examination of uracil nucleotides, nucleotide-sugars, and cysteinyl-leukotrienes as agonists of GPR17. *Journal of Pharmacological and Experimental Therapeutics* **347**: 38-46
6. DuBose DR, Wolff SC, **Qi AD**, Naruszewicz I and Nicholas RA. (2013) Apical targeting of the P2Y(4) receptor is directed by hydrophobic and basic residues in the cytoplasmic tail. *Am J Physiol Cell Physiol*. **304**: C228-39
7. **Qi AD**, Houston-Cohen D, Naruszewicz I, Harden TK and Nicholas RA. (2011) Ser352 and Ser354 in the carboxyl terminus of the human P2Y₁ receptor are required for agonist-promoted phosphorylation and internalization in MDCK cells. *British Journal of Pharmacology* **162**: 1304-13
8. El-Tayeb A, **Qi AD**, Nicholas RA and Müller CE. (2011) Structural modifications of UMP, UDP, and UTP leading to subtype-selective agonists for P2Y₂, P2Y₄, and P2Y₆ receptors. *Journal of Medicinal Chemistry* **54**: 2878-90

9. Wolff SC, **Qi AD**, Harden TK and Nicholas RA. (2010) Charged residues in the C-terminus of the P2Y₁ receptor comprise a novel basolateral sorting signal. *Journal of Cell Science* **123**: 2512-20
10. El-Tayeb A, **Qi AD**, Nicholas RA and Müller CE. (2011) Synthesis of new uracil nucleotide derivatives and analogs as P2Y receptor agonists. *Purinergic Signalling* **4**: s16-17
11. Magnone M, Basile G, Bruzzese D, Guida L, Signorello MG, Chothi MP, Bruzzone S, Millo E, **Qi AD**, Nicholas RA, Kassack MU, Leoncini G and Zocchi E. (2008) Adenylic dinucleotides produced by CD38 are negative endogenous modulators of platelet aggregation. *Journal of Biological Chemistry* **283**:24460-8
12. El-Tayeb A, **Qi AD**, Müller CE. (2006) Synthesis and structure-activity relationships of uracil nucleotide derivatives and analogues as agonists at human P2Y₂, P2Y₄, and P2Y₆ receptors. *Journal of Medicinal Chemistry* **49**:7076-7087
13. **Qi AD**, Wolff SC, Harden TK and Nicholas RA. (2005) The apical targeting signal of the P2Y₂ receptor is located in its first extracellular loop. *Journal of Biological Chemistry* **280**: 29169-29175
14. Wolff SC, **Qi AD**, Harden TK and Nicholas RA. (2005) Polarized expression of human P2Y receptors in epithelial cells from kidney, lung, and colon. *Am J Physiol Cell Physiol.* **288**:C624-632
15. **Qi AD**, Harden TK and Nicholas RA (2004) GPR80/99, proposed to be the P2Y₁₅ receptor activated by adenosine and AMP, is not a P2Y receptor. *Purinergic Signalling* **1**:67-74
16. Herold CL, **Qi AD**, Kennedy C, Harden TK and Nicholas RA. (2004) Agonist versus antagonist action of ATP at the P2Y₄ receptor is determined by the second extracellular loop. *Journal of Biological Chemistry* **279**:11456-11464
17. **Qi AD**, Zamboni AC, Insel PA and Nicholas RA. (2001) An arginine/glutamine difference at the juxtaposition of transmembrane domain 6 and the third extracellular loop contributes to the markedly different nucleotide selectivities of human and canine P2Y₁₁ receptors. *Molecular Pharmacology* **60**: 1375-1382
18. **Qi AD**, Kennedy C, Harden TK, and Nicholas RA. (2001) Differential coupling of the human P2Y₁₁ receptor to phospholipase C and adenylyl cyclase. *British Journal of Pharmacology* **132**: 318-326
19. Kennedy C, **Qi AD**, Herold CL, Harden TK, and Nicholas RA. (2000) ATP, an agonist of the rat P2Y₄ receptor, is an antagonist at the human P2Y₄ receptor. *Molecular Pharmacology* **57**: 926-931

20. Kwan YW, **Qi AD**. (1997) Inhibition by extracellular ATP of L-type calcium channel currents in guinea-pig single sinoatrial nodal cells: involvement of protein kinase C. *Can J Cardiol.* **13**(12):1202-11
21. **Qi AD**, Kwan YW. (1996) Modulation by extracellular ATP of L-type calcium channels in guinea-pig single sinoatrial nodal cell. *British Journal of Pharmacology* **119**:1454-62
22. **Qi AD**, Wu Baojie, and Zhou Xubin. (1992) Effects of arachidonic acid, eicosapentaenoic acid and docosahexaenoic acid on tension of rabbit aortic strips. *Acta Pharmaceutica Sinica* **27**:246-51
23. **Qi AD**, Wu Baojie, and Zhou Xubin. (1992) Advances in research of endothelin. *Progress in Physiological Sciences* **23**:46-51
24. **Qi AD**, Wu Baojie, and Zhou Xubin. (1990) Effect of hypercholesterolemia on function of platelets. *Progress in Physiological Sciences* **23**: 310-3
25. More than 10 papers published in Chinese not included.

II. Presentations at Scientific Meetings:

1. **Aidong Qi**, Peter M. Gulleman, John T. Benjamin, Riet Van der Meer, Sara W. Jackson, Jonathan A. Kropski, Timothy Blackwell, and Lisa R. Young. Epithelial-dependent fibroblast phenotypes in Hermansky Pudlak Syndrome mice. **The Lung Epithelium in Health and Disease** (Olean, NY, July 30-August 3, 2018)
2. **A Qi**, P Gulleman, S Jackson, W Han, E Plosa, J Benjamin, B Gochuico, W Gahl, S Kook, SH Guttentag, TS Blackwell, and LR Young. Epithelial Nox4 Contributes to Fibrotic Susceptibility in Hermansky Pudlak Syndrome Mice. Gordon Research Conference on Lung Development, Injury, and Repair (New London, NH, August 2017)
3. S Kook, **A Qi**, P Gulleman, LR Young, and S Guttentag. (2017) Generation of mouse lung epithelial cell models of Hermansky-Pudlak syndrome (HPS) via CRISPR-Cas9 mediated mutation in MLE15. *American Journal of Respiratory and Critical Care Medicine* **195**: A6800
4. Bradley Clarke, **Aidong Qi**, John York. (2016) Identification of novel inositol 1,3,4,5,6-pentakisphosphate binding proteins. *BSA 2016 Symposium* (Vanderbilt University)
5. Michele Salzman, BS, Aqeela Afzal, PhD, Qunli Cheng, PhD, **Aidong Qi**, PhD, Frank Bates, PhD, Matthias Riess, MD, PhD (2015) Protection Against Hypoxia/Reoxygenation Injury of Endothelial Cells by Poloxamer 188. *American*

Society of Anesthesiologists (ASA) Annual Meeting (San Diego)

6. Matthias Riess, MD, PhD, Michele Salzman, BS, Qunli Cheng, PhD, **Aidong Qi**, PhD, Aqeela Afzal, PhD. (2015) Copolymer-Based Cell Membrane Stabilizers Attenuate Murine Cerebral Ischemia Reperfusion Injury. *American Society of Anesthesiologists (ASA) Annual Meeting (San Diego)*
7. **Qi AD**, Harden TK and Nicholas RA. (2013) PDZ ligand-dependent phosphorylation of Ser336 in the C-terminal tail of the P2Y₁ receptor blocks agonist-promoted internalization in HEK293 cells. *Experimental Biology (Boston)*
8. **Qi AD**, Glast DM, Harden TK and Nicholas RA (2011) Cell type-dependent internalization of the ADP-activated P2Y₁ receptor. *Experimental Biology Meeting (Washington DC)*
9. **Qi AD**, Glast D, Naruszewicz I, Harden TK and Nicholas RA (2009) Ser³³⁶ in the C-terminal tail of the P2Y₁ receptor regulates agonist-promoted internalization. *Experimental Biology Meeting (Anaheim, CA)*
10. **Qi AD**, Houston, D, Naruszewicz I, Harden TK and Nicholas RA. (2008) Agonist-promoted internalization of the P2Y₁ receptor in Madin-Darby canine kidney cells. *Experimental Biology (San Diego)*
11. **Qi AD**, Harden TK and Nicholas RA. (2008) Evaluation of nucleotides, nucleotide-sugars, and lipid mediators as agonists of GPR17 and GPR87. *Purinergic Signalling 4*: S83.
12. El-Tayeb A, **Qi AD**, Nicholas RA and Müller CE. (2008) Synthesis of new uracil nucleotide derivatives and analogues as P2Y receptor agonists. *Purinergic Signalling 4*: S16.
13. El-Tayeb A, **Qi AD**, Müller CE. (2006) Synthesis and structure-activity relationships of base-modified derivatives and analogs at human P2Y₂, P2Y₄, and P2Y₆ receptors. *Purinergic Signalling 2*: 304-305.
14. Houston D, **Qi AD**, Nicholas RA and Harden TK. (2006) Agonist-induced trafficking of the P2Y₁ receptor quantified with the novel radioligand, [³²P]MRS2500. *Purinergic Signalling 2*: 113.
15. **Qi AD**, Wolff SC, Harden TK and Nicholas RA. (2003) Identification of an apical targeting signal in the P2Y₂ receptor. *FASEB Journal 17*: A636
16. More than 20 other abstracts are not included.