

Xu Chen, Ph.D.

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EDUCATION

- **Lanzhou University (LZU)** Lanzhou, Gansu
Ph.D., Biophysics Sep. 2013- Jun. 2018
- **Northwest Normal University (NWNNU)** Lanzhou, Gansu
B.S., Biological Sciences (Major) Sep. 2008-Jun. 2012
B.A., English Language and Literature (Minor) Sep. 2008-Jul. 2012

RESEARCH EXPERIENCE

- **University of Mississippi Medical Center, Jackson, MS, USA**
Postdoctoral Fellow, Department of Physiology and Biophysics 2019-Present

Postdoctoral Fellow, Pharmacology and Toxicology 2018-2019
 - **Animal study:** Blood pressure measurements (noninvasive tail-cuff technique, direct implanted telemetry technique), chronic natriuretic responses (metabolic cage techniques)
 - **Molecular biology:** Genotyping; western blot
 - **Others:** Animal breeding
- **Visiting Researcher, Department of Physiology and Biophysics** 2015-2018
 - **Cell culture:** cell culture; cell counting; gene silencing through siRNA
 - **Animal study:** ex vivo Langendorff perfusion system; cardiomyocyte isolation; cardiomyocyte contraction measurement
 - **Molecular biology:** western blot; RNA extraction, RT-qPCR; ELISA; immunoprecipitation;
 - **Others:** flow cytometry; Agilent Seahorse XF Analysis; immunofluorescence; confocal microscopy and image analysis.
- **Lanzhou University, Lanzhou, Gansu, China** 2013-2015
 - **Chemically modified Mattheucinol:** performing chemical reaction; isolating and purifying compounds
 - **Biological experiment:** flow cytometry, western blot; RNA extraction, RT-qPCR
- **Northwest Normal University, Lanzhou, Gansu, China** 2008-2012
 - Isolation of microbial strains from soil, culture of bacteria and morphological analysis.

PUBLICATIONS

Articles

- **Chen X**, Li X, Zhang W, He J, Xu B, Lei B, Wang Z, Cates C, Rousselle T, Li J. Activation of AMPK inhibits inflammatory response during hypoxia and reoxygenation through modulating JNK-mediated NF- κ B pathway. *Metabolism*. 2018 Jun; 83:256-270. doi: 10.1016/j.metabol.2018.03.004.
- Ashraf S, Yilmaz G, **Chen X**, Harmancey R1,2,3. Dietary Fat and Sugar Differentially Affect β -Adrenergic Stimulation of Cardiac ERK and AKT Pathways in C57BL/6 Male Mice Subjected to High-Calorie Feeding. *J Nutr*. 2020 Jan 17. pii: nxz342. doi: 10.1093/jn/nxz342.
- Li XC, Zhu D, **Chen X**, Zheng X, Zhao C, Zhang J, Soleimani M, Rubera I, Tauc M, Zhou X, Zhuo JL. Proximal Tubule-Specific Deletion of the NHE3 (Na⁺/H⁺ Exchanger 3) in the Kidney Attenuates Ang II (Angiotensin II)-Induced Hypertension in Mice. *Hypertension*. 2019 Sep;74(3):526-535. doi: 10.1161/HYPERTENSIONAHA.119.13094. Epub 2019 Jul 29.
- Li XC, Zheng X, **Chen X**, Zhao C, Zhu D, Zhang J, Zhuo JL. Genetic and genomic evidence for an important role of the Na⁺/H⁺ exchanger 3 in blood pressure regulation and angiotensin II-induced hypertension. *Physiol Genomics*. 2019 Apr 1;51(4):97-108.
- Li XC, Soleimani M, Zhu D, Rubera I, Tauc M, Zheng X, Zhang J, **Chen X**, Zhuo JL. Proximal Tubule-Specific Deletion of the NHE3 (Na⁺/H⁺ Exchanger 3) Promotes the Pressure-Natriuresis Response and Lowers Blood Pressure in Mice. *Hypertension*. 2018 Dec;72(6):1328-1336.
- Wang L, Quan N, Sun W, **Chen X**, Cates C, Rousselle T, Zhou X, Zhao X, Li J. Cardiomyocyte Specific Deletion of Sirt1 Gene Sensitizes Myocardium to Ischemia and Reperfusion Injury. *Cardiovasc Res*. 2018 Feb 2.
- Quan N, Wang L, **Chen X**, Luckett C, Cates C, Rousselle T, Zheng Y, Li J. Sestrin2 prevents age-related intolerance to post myocardial infarction via AMPK/PGC-1 α pathway. *J Mol Cell Cardiol*. 2018 Feb;115:170-178.
- Cates C, Rousselle T, Wang J, Quan N, Wang L, **Chen X**, Yang L, Rezaie AR, Li J. Activated protein C protects against pressure overload-induced hypertrophy through AMPK signaling. *Biochem Biophys Res Commun*. 2018 Jan 22;495(4):2584-2594.
- Xue M, **Chen X**, Guo Z, Liu X, Bi Y, Yin J, Hu H, Zhu P, Zhuang J, Cates C, Rousselle T, Li J. L-Carnitine Attenuates Cardiac Dysfunction by Ischemic Insults through Akt Signaling Pathway. *Toxicol Sci*. 2017 Sep 9.
- Zhang J, Zhao P, Quan N, Wang L, **Chen X**, Cates C, Rousselle T, Li J. The endotoxemia cardiac dysfunction is attenuated by AMPK/mTOR signaling pathway regulating autophagy. *Biochem Biophys Res Commun*. 2017 Oct 21;492(3):520-527.
- Quan N, Sun W, Wang L, **Chen X**, Bogan JS, Zhou X, Cates C, Liu Q, Zheng Y, Li J. Sestrin2 prevents age-related intolerance to ischemia and reperfusion injury by modulating substrate metabolism. *FASEB J*. 2017 Sep;31(9):4153-4167.
- Ru JX, **Chen X**, Guan LP, Tang XL, Wang CM, Meng Y, Zhang GL and Liu WS. Ratiometric Iridium (III) Complex-based Phosphorescent Chemo-dosimeter for Hg²⁺ Applicable in Time-resolved Luminescence Assay and Live Cell Imaging. *Anal. Chem*. 87 (6) :3255–3262, 2015.

Conference Abstract

- **Xu Chen**, Nanhu Quan, Lin Wang, Dongyang Chu, Peng Zhao, Mei Xue, Yanping Bi, Courtney Cates, Ji Li. A Potent and Selective Covalent Inhibitor of JNK Protects Heart From Both Ischemia/Reperfusion- and Hypertension-induced Heart Failure. *Circulation*. 2016;134: A11919 (2016 AHA Scientific Session, Nov., 2016, New Orleans) (Poster).

- Nanhu Quan, Lin Wang, Dongyang Chu, **Xu Chen**, Courtney Cates, Quan Liu, Yang Zheng, Ji Li. Sestrin2 Prevents Age-related Intolerance to Ischemia and Reperfusion Injury via Modulating Substrate Metabolism. *Circulation*. 2016;134: A11974 (2016 AHA Scientific Session, Nov., 2016, New Orleans) (Poster).
- Lin Wang, Nanhu Quan, Dongyang Chu, **Xu Chen**, Xuezhong Zhao, Ji Li. Cardiomyocyte Specific Deletion of Sirt1 Gene Alters Substrate Metabolism and Sensitizes Myocardium to Ischemia and Reperfusion Injury. *Circulation*. 2016;134: A12050 (2016 AHA Scientific Session, Nov., 2016, New Orleans) (Poster).
- Jinli Wang, Nanhu Quan, Lin Wang, **Xu Chen**, Dongyang Chu, Alireza Rezaie, Ji Li. Inactivation of AMP-activated Protein Kinase Sensitizes Heart to Pressure Overload-induced Hypertrophy. *Circulation*. 2016; 134: A12019 (2016 AHA Scientific Session, Nov., 2016, New Orleans) (Poster).

REWARDS

- 2016 Outstanding Poster Presentation Award at China-USA Cardiovascular Symposium