

# 李欣志 Xinzhi Li



**職稱/Position:** 助理教授/Assistant Professor  
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**教學科目 :**藥理學研究方法；科技文獻檢索與寫作；臨床藥理學；生物化學與分子生物學等。

**Teaching activity:** Methodology in Pharmacology; Scientific Writing; Clinical Pharmacology; Biochemistry and Molecular Biology

**研究方向 :**不飽和脂肪酸受體的信號轉導；肥胖過程中的慢性炎症反應；血管外周脂肪細胞的通信聯繫在血管性疾病的作用；抗炎藥物的發現與機制。

**Research interest:** unsaturated fatty acid signaling pathway; obesity-associated chronic inflammation; communication between perivascular adipocytes and other cells in the cardiovascular diseases; drug development for anti-inflammation.

## 研究課題/Research project:

1. 自由脂肪酸受體 4 抗血管外周組織炎症反應研究/ Anti-inflammatory effects of free fatty acid receptor 4 during inflammation in the perivascular adipose tissue, FDCT 0123/2020/A, 2021.06-2023.06
2. 血管外周脂肪組織異質性、褐色化以及益母草碱降脂作用新機制研究/ Heterogeneity and browning of the perivascular adipose tissue and new mechanisms for the lipid-lowering effects of leonurine, FDCT 0053/2021/A1, 2021.09-2024.09

## 學歷/Education

- 2008 中國中醫科學院，博士學位/PhD, China Academy of Chinese Medical Sciences (CACMS), Beijing, China
- 2000 北京中醫藥大學醫學碩士和學士學位（7 年制專業）/ Bachelor & Master in Medicine, Beijing University of Chinese Medicine (7-year program), Beijing, China

## 工作經驗/Work experience

- 2020 - 澳門科技大學 助理教授/Assistant Professor, Macau University of Science and Technology
- 2010 - 2020 加拿大女皇大學 博士後和副研究員/ Postdoctoral Fellow/Research Associate, Queen's University, Kingston, ON, Canada
- 2000 - 2010 中國中醫科學院 助理研究員、副研究員 / Research Assistant/Associate Professor in Pharmacology, Xiyuan Hospital, CACMS, Beijing, China

## 代表性文章/Publications

Li X, Ma Z and Zhu YZ (2021) Regional Heterogeneity of Perivascular Adipose Tissue: Morphology, Origin, and Secretome. *Front. Pharmacol.* 12:697720. doi: 10.3389/fphar.2021.697720

Lin Z, Ding Q, Li X, Feng Y, He H, Huang C, Zhu Y. Targeting Epigenetic Mechanisms in Vascular Aging. *Frontiers in Cardiovascular Medicine* 2022;8:806988

Li X, Ballantyne LL, Yu Y, Funk CD. Perivascular adipose tissue-derived extracellular vesicle miR-221-3p mediates vascular remodeling. *FASEB J.* 2019; 33(11): 12704–12722. doi: 10.1096/fj.201901548R

Li X, Ballantyne LL, Crawford MC, FitzGerald GA, Funk CD. Isoform-specific compensation of cyclooxygenase (*Ptgs*) genes during implantation and late-stage pregnancy. *Sci Rep.* 2018 Aug 14, 8(1):12097. doi: 10.1038/s41598-018-30636-x

Li X, Mazaleuskaya LL, Ballantyne LL, Meng H, FitzGerald GA, Funk CD. Differential compensation of two cyclooxygenases in renal homeostasis is independent of prostaglandin-synthetic capacity under basal conditions. *FASEB J.* 2018; 32(10): 5326–5337.

Li X, Mazaleuskaya LL, Yuan C, Ballantyne LL, Meng H, Smith WL, FitzGerald GA, Funk CD. Flipping the cyclooxygenase (*Ptgs*) genes reveals isoform-specific compensatory functions. *J Lipid Res.* 2018; 59(1):89-101.

Li X, Mazaleuskaya LL, Ballantyne LL, Meng H, FitzGerald GA, Funk CD. Genomic and lipidomic analyses differentiate the compensatory roles of two COX isoforms during systemic inflammation in mice. *J Lipid Res.* 2018; 59(1):102-112.

Liu G, Gong Y, Zhang R, Piao L, Li X, Liu Q, Yan S, Shen Y, Guo S, Zhu M, Yin H, Funk CD, Zhang J, Yu Y. Resolvin E1 attenuates injury-induced vascular neointimal formation by inhibition of inflammatory responses and vascular smooth muscle cell migration. *FASEB J.* 2018; 32(10):5413-5425.

Li X, Ballantyne LL, Che X, Mewburn JD, Kang JX, Barkley RM, Murphy RC, Yu Y, Funk CD. Endogenously generated omega-3 Fatty acids attenuate vascular inflammation and neointimal hyperplasia by interaction with free Fatty Acid receptor 4 in mice. *J Am Heart Assoc.* 2015; 4(4). pii: e001856. doi: 10.1161/JAHA.115.001856.

Gong Y, Lin M, Piao L, Li X, Yang F, Zhang J, Xiao B, Zhang Q, Song WL, Yin H, Zhu L, Funk CD, Yu Y. Aspirin enhances protective effect of fish oil against thrombosis and injury-induced vascular remodelling. *Br J Pharmacol.* 2015; 172(23):5647-60.

Li X, Yu Y, Funk CD. Cyclooxygenase-2 induction in macrophages is modulated by docosahexaenoic acid via interactions with free fatty acid receptor 4 (FFA4). *FASEB J.* 2013; 27(12):4987-97.