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

Research interests: unsaturated fatty acid and lipid mediator signaling pathway; obesity-associated chronic inflammation; communication between fat cells and other cells in cardiovascular diseases; drug development for anti-inflammation.

Education

2021 Master of Science in Biostatistics, Queen's University Canada
2008 PhD, China Academy of Chinese Medical Sciences, Beijing, China
2000 Bachelor & Master's in medicine, Beijing University of Chinese
Medicine (7-year program), Beijing, China

Work experience

2020 - Assistant Professor, Macau University of Science and Technology
2010 - 2020 Postdoctoral Fellow/Research Associate, Queen's University, Kingston,
ON, Canada
2000 - 2010 Research Assistant/Associate Professor in Pharmacology, Xiyuan
Hospital, CACMS, Beijing, China

Recent Publications

1. Li J, Zheng Y, Duan Z, Zeng Q, Qu J, Zhang J, Liu J, Shang W, Tao X, Yu T, **Li X**, Wang L, Yang L, Kong D, Yu Y. PGD 2 /DP1 axis promotes liver regeneration by secreting Wnt2 in KCs in mice. *Hepatology*. 2024 Jul 19. doi: 10.1097/HEP.0000000000001020. Epub ahead of print. PMID: 39028901.
2. Chen C, Cao Z, Lei H, Zhang C, Wu M, Huang S, **Li X**, Xie D, Liu M, Zhang L, Chen G. Microbial Tryptophan Metabolites Ameliorate Ovariectomy-Induced Bone Loss by Repairing Intestinal AhR-Mediated Gut-Bone Signaling Pathway. *Adv Sci (Weinh)*. 2024 Jul 23:e2404545. doi: 10.1002/advs.202404545. Epub ahead of print. PMID: 39041942.
3. Li Y, Chen Z, Xiao Y, **Li X***. Cross-talks between perivascular adipose tissue and neighbors: multifaceted nature of nereids. *Front Pharmacol*. 2024 Aug 2;15:1442086. doi: 10.3389/fphar.2024.1442086. PMID: 39156105; PMCID: PMC11327032.
4. Vijenthira A, **Li X**, Crump M, Hay AE, Shepherd L, Meyer RM, Djurfeldt M, Chen BE, Prica A, 2024. Development and testing of a lymphoma clinical trial-specific frailty index: a secondary analysis of the NCIC-CTG LY.12 clinical trial. *Leuk Lymphoma* 65, 1651-1658.
5. Wang T, Zhang X, Zhou N, Shen Y, Li B, Chen BE, **Li X***. Association Between Omega-3 Fatty Acid Intake and Dyslipidemia: A Continuous Dose-Response Meta-Analysis of Randomized Controlled Trials. *J Am Heart Assoc*, 2023, 12(11): e029512.
6. Tang Z, Meng S, Song Z, Yang X, **Li X**, Guo H, Du M, Chen J, Zhu YZ*, Wang X*. Neutrophil membrane fusogenic nanoliposomal leonurine for targeted ischemic stroke therapy via remodeling cerebral niche and restoring blood-brain barrier integrity. *Mater Today Bio*, 2023, 20: 100674.
7. Lin Z, Chang J, **Li X**, Wang J, Wu X, Liu X, Zhu YZ*, Yu X*. Association of DNA methylation and transcriptome reveals epigenetic etiology of heart failure. *Funct Integr Genomics*, 2022, 22(1): 89-112.
8. Lin Z, Deng Q, Fang Q, **Li X**, Liu X, Wang J, Chen S, Huang X, Yang L, Miao Y, Yu X*. Black phosphorus nanoparticles for dual therapy of non-small cell lung cancer. *J Drug Target*, 2022, 30(6): 614-622.
9. 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
10. Zhang X, Ritonja JA, Zhou N, Chen BE., **Li X***. Omega-3 Polyunsaturated Fatty Acids Intake and Blood Pressure: A Dose-Response Meta-Analysis of Randomized Controlled Trials. *J Am Heart Assoc*, 2022, 11(11): e025071.

11. **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
12. Mai C, Zheng D, **Li X**, Zhou H, Xie Y*. Liver X receptors conserve the therapeutic target potential for the treatment of rheumatoid arthritis. **Pharmacol Res**, 2021, 170: 105747.
13. **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
14. **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.
15. **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.
16. **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
17. **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.
18. 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.
19. **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.
20. 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.
21. **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.
22. Cao RY., St Amand T, Li X, Yoon S, Wang CP, Song H, Maruyama T, Brown PM, Zelt DT, Funk CD*. Prostaglandin receptor EP4 in abdominal aortic aneurysms. *Am J Pathol*, 2012, 181(1): 313-21.
23. Li X, Guo M, McCracken CM, Funk CD*. Targeted exchange of an expression cassette encoding cyclooxygenase-2 at the Ptgs1 locus. *Prostaglandins Other Lipid Mediat*, 2012, 99(1-2): 38-44.