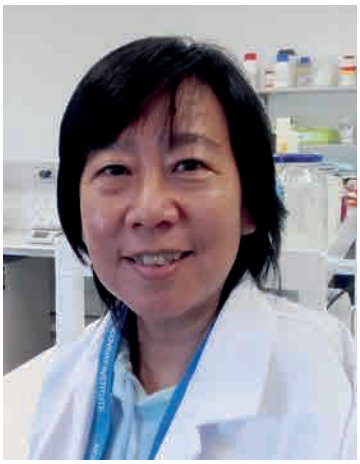

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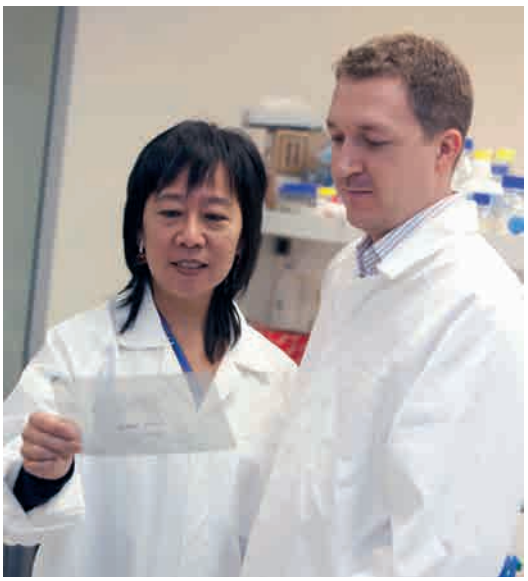
Our research team makes fundamental discoveries in cardiovascular research and translates these into improved clinical management of patients. Our core work on how high intraluminal pressure and lipids cause vascular inflammation, including their impact on monocyte and macrophage subsets, differentiation and polarization, as well as on endothelial activation and phenotype, is based on the central tenet that these mechanistic alterations occur via the cell membrane structural site, the caveola and its associated protein, caveolin-1. These concepts not only have discovery impact, but also clinical relevance in the context of patients with high blood pressure, hypercholesterolaemia, and coronary artery disease.

Research Projects

1. **Patient induced algorithms of pulsatile pressure on vascular inflammation**
2. **Imaging and tracking monocytic-like cells in hypertensive zebrafish**
3. **Bioenergetics of monocyte/macrophage subsets in patients with dyslipidemia**



Prof Chin-Dusting with A/Prof Andrew Murphy in the Vascular Pharmacology Laboratory circa 2015.

Selected significant publications:

1. Lee MK, Moore XL, Fu Y, Al-Sharea A, Dragoljevic D, Fernandez-Rojo MA, Parton R, Sviridov D, Murphy AJ, **Chin-Dusting JP**. 2016. High-density lipoprotein inhibits human M1 macrophage polarization through redistribution of caveolin-1. *Br J Pharmacol* 173(4): 741-51.
2. Woollard KJ, Lumsden NG, Andrews KL, Aprico A, Harris E, Irvine JC, Jefferis AM, Fang L, Kanellakis P, Bobik A, **Chin-Dusting JP**. 2014. Raised soluble P-selectin moderately accelerates atherosclerotic plaque progression. *PLoS One* 20: 9(5): e97422.
3. Murphy AJ, Hoang A, Aprico A, Sviridov D, **Chin-Dusting J**. 2013. Anti-inflammatory functions of apolipoprotein A-I and high-density lipoprotein are preserved in trimeric apolipoprotein A-I. *J Pharmacol Expt Ther* 344(1): 41-9.
4. Fu Y, Moore XL, Lee MK, Fernández-Rojo MA, Parat MO, Parton RG, Meikle PJ, Sviridov D, **Chin-Dusting JP**. 2012. Caveolin-1 plays a critical role in the differentiation of monocytes into macrophages. *Arterioscler Thromb Vasc Biol* 32(9): e117-25.
5. Fang L, Moore XL, Chan W, White DA, **Chin-Dusting J***, Dart AM. 2012. Decreased fibrocyte number is associated with atherosclerotic plaque instability in man. *Cardiovasc Res* 95(1): 124-33.