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XIAOQIANG YAO



Principal Investigator

Xiaoqiang Yao



Team members

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Research Progress Summary

Research group led by Xiaoqiang Yao has been working on Ca²⁺-permeable ion channels and endoplasmic reticulum stress-related proteins in cardiovascular system and cancer. Recently, the novel function of Orai1 channels in cardiac hypertrophy and role of TRPM2 channels in atherosclerotic progress have been uncovered. The strategy of active immunisation with TRPM2 peptide in vaccine platform for potential treatment of atherosclerosis was being developed currently. In addition, the novel functional role of TRPML2 channels in prostate cancer progression was identified and the research is supported by Hong Kong RGC Area of Excellence Grant, General Research Fund and Health and Medical Research Fund.



05 **CARDIOVASCULAR MEDICINE**

Vascular Medicine - Basic Research

Research and Scholarship

Academic Editorship

Member's Name	Details	
	Role	Organisation
Xiaoqiang Yao	Associate Editor	Frontiers in Pharmacology
		Scientific Reports
	Guest Editor	Cells

Reviewer of Journal / Conference

Member's Name	Details	
	Role	Journal / Conference
Xiaoqiang Yao	Reviewer	Circulation Research
		Cell Reports
		Cardiovascular Research
		British Journal of Pharmacology
		Laboratory Investigation

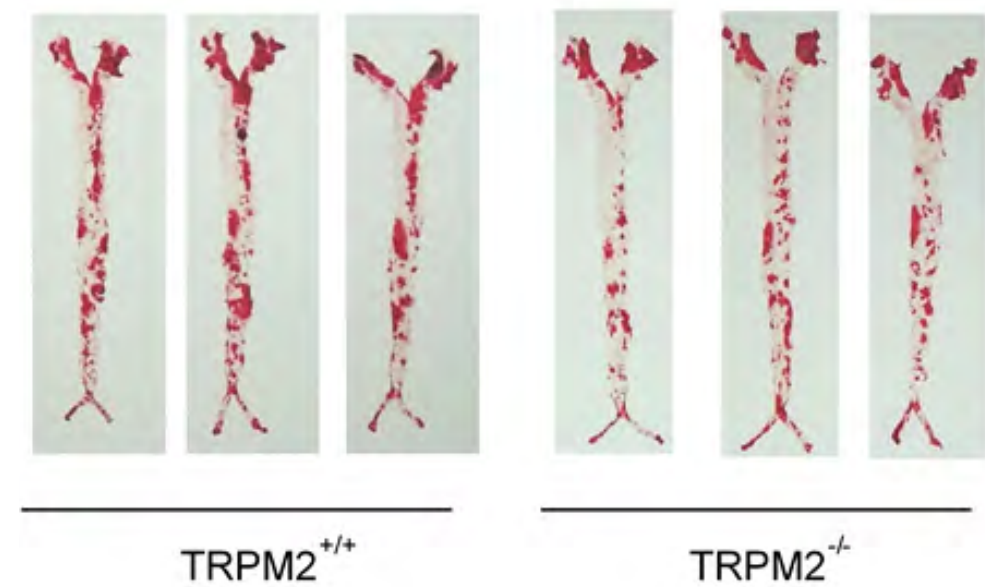
Grants and Consultancy

Name	Project Title	Funding Source	Start Date (dd/mm/yyyy)	End Date (dd/mm/yyyy)	Amount (HK\$)
Xiaoqiang Yao	Role of TRPC5 in Endothelium-dependent Contraction in Hypertensive Model of Mice	Research Grants Council – General Research Fund	01/01/2020	31/12/2022	1,042,225
	Plant Bioreactor for Pharmaceutical Proteins	Research Grants Council – Research Impact Fund	01/06/2019	31/05/2024	5,000,000
	Targeting TRPM2 as A Potential Therapeutic Strategy for Spontaneous Atherosclerosis	Food and Health Bureau – Health and Medical Research Fund	01/09/2019	31/08/2022	1,181,050
	Centre for Organelle Biogenesis and Function	Research Grants Council – Areas of Excellence Scheme	01/01/2014	31/12/2021	47,250,000

Publications

A. Journal Papers

1. Yu H, Xie M, Meng Z, Lo CY, Chan FL, Jiang L, Meng X, Yao X. Endolysosomal ion channel MCOLN2 (Mucolipin-2) promotes prostate cancer progression via IL-1 β /NF- κ B pathway. *British Journal of Cancer*. 2021;125(10):1420-1431. doi:10.1038/s41416-021-01537-0.
2. Yu L, Xie M, Zhang F, Wan C, Yao X. TM9SF4 is a novel regulator in lineage commitment of bone marrow mesenchymal stem cells to either osteoblasts or adipocytes. *Stem Cell Research and Therapy*. 2021;12(1):1-16. doi:10.1186/s13287-021-02636-8.



A Schematic Figure showing that TRPM2 knockout significantly slows down the atherosclerotic progression as indicated by en face Oil Red O staining of atherosclerotic plaques in mouse aorta.

Source: Xiaoqiang Yao