

Curriculum Vitae: Zhi-Xiu Lin

Qualifications:

BSc in Medical Science (TCM, Guangzhou University of TCM, 1987).

PhD in Pharmacognosy (King's College London, 1999).

Postgraduate Certificate in Higher Education (Middlesex University London, UK, 09/1998-05/2000).

Previous academic positions held:

2003-5.2010 Assistant Professor, School of Chinese Medicine, CUHK.

2002-2003 Assistant Professor, Macau University of Science and Technology, Macau.

1998-2002 Senior Lecturer, School of Health and Social Science, Middlesex University, UK.

1991-1998 Herbalist and acupuncturist, Institute of Chinese Medicine, London.

1987-1990 Medical Doctor, the Affiliated Hospital of Guangdong Provincial Research Institute of TCM, China.

Present academic position:

Associate Professor and Associate Director, School of Chinese Medicine, CUHK.

Director, Hong Kong Institute of Integrative Medicine, Faculty of Medicine, CUHK.

Previous relevant research work: R&D on Chinese medicines for neurodegenerative diseases (Alzheimer's disease and Parkinson's disease), cancers (pancreatic, lung and breast cancer), and skin diseases (psoriasis and eczema).

Publication records:

Section A – Five most representative publications in recent five years:

Lai ZQ, Ip SP, Liao HJ, Lu Z, Xie JH, Su ZR, Chen YL, Xian YF, Leung PS, **Lin ZX***. Brucein D, a Naturally Occurring Tetracyclic Triterpene Quassinoid, Induces Apoptosis in Pancreatic Cancer through ROS-Associated PI3K/Akt Signaling Pathway. *Front Pharmacol.* 2017;8:936.

Lu Z, Lai ZQ, Leung AWN, Leung PS, Li ZS, **Lin ZX***. Exploring brusatol as a new anti-pancreatic cancer adjuvant: Biological evaluation and mechanistic studies. *Oncotarget.* 2017. 8(49):84974-84985.

Chen YL, Xian YF, Lai ZQ, Loo S, Chan WY, **Lin ZX***. Anti-inflammatory and anti-allergic effects and underlying mechanisms of Huang-Lian-Jie-Du Decoction: Implication for atopic dermatitis treatment. *J Ethnopharmacol.* 2016;185:41-52.

Xian YF, Ip SP, Mao QQ, **Lin ZX***. Neuroprotective effects of Honokiol against beta-amyloid-induced neurotoxicity via GSK-3 β and β -Catenin signaling pathway in PC12 cells. *Neurochem Int.* 2016;97:8-14.

Xian YF, Mao QQ, Wu JCY, Su ZR, Chen JN, Lai XP, Ip SP, **Lin ZX.*** Isorhynchophylline treatment improves the A β -induced cognitive impairment in rats via inhibition of neuronal apoptosis and tau protein hyperphosphorylation. *J Alzheimers Dis.* 2014;39(2):331-46.

Section B – Representative publications beyond the recent five-year period:

- Zhou LL, **Lin ZX***, Fung KP, Cheng CHK, Che CT, Zhao M, Wu SH, Zuo Z. Celastrol-induced apoptosis in human HaCaT keratinocytes involves with the inhibition of NF- κ B activity. *Eur J Pharmacol.* 2011;670(2-3):399-408.
- Lau ST, **Lin ZX***, Leung PS. Role of reactive oxygen species in brucein D-mediated p38 mitogen-activated protein kinase and nuclear factor- κ B signaling pathways in human pancreatic adenocarcinoma cells. *Br J Cancer.* 2010;102(3):583-93.
- Lau ST, **Lin ZX***, Liao YH, Zhao M, Cheng CHK, Leung PS. Brucein D induces apoptosis in pancreatic adenocarcinoma cell line PANC-1 through the activation of p38-mitogen activated protein kinase. *Cancer Lett.* 2009;281(1):42-52.
- Tse WP, Cheng CHK, Che CT, **Lin ZX***. (2008). Arsenic trioxide, arsenic pentoxide and arsenic iodide inhibit human keratinocyte proliferation through the induction of apoptosis. *J Pharmacol Exp Ther* **326(2)**:388-94.
- Tse WP, Che CT, Liu K, **Lin ZX***. Evaluation of the Anti-Proliferative Properties of Selected Psoriasis-Treating Chinese Medicines on Cultured HaCaT Cells. *J Ethnopharmacol.* 2006;108(1):133-41.

Research-related prizes:

Winner of the Glaxo-Wellcome Prize 2000 for the Best PhD Thesis in the Department of Pharmacy, King's College London.

Intellectual property rights owned:

UK patent application numbers 9815188.9 and 9815177.2 covering the use of piperine and its derivatives for the treatment of vitiligo.

RESEARCH GRANTS

Competitive Grants

RGC-GRF grants

Grant agency/ amount (HK\$)	PI or Co-I (%)	Project title & reference no.	External competitive	Year
RGC-GRF \$ 883,079	PI	The effect of neobavaisoflavone on bone formation in delayed union of bone fracture and its related mechanistic study	Yes	07/2016 - 12/2018
RGC-GRF \$549,148	PI	Exploring Isorhynchophylline as a Novel Anti-Alzheimer's Disease Agent: In Vivo and In Vitro Evaluations on Its Efficacy and Action Mechanisms. 14110814.	Yes	01/2015 - 10/2018
RGC-GRF \$850,000	PI	Developing Brucein D as a Novel Anti-Pancreatic Cancer Agent: In Vivo Evaluations on Its Efficacy, Safety and Action Mechanisms. 469912.	Yes	10/2012 - 09/2015
RGC-GRF; \$789,080	PI	Identification and Evaluation of Anthraquinones from Rubia Cordifolia L. for Psoriasis Treatment Targeting Keratinocyte Hyperproliferation and Aberrant Differentiation. 470408.	Yes	01/2009 - 12/2010

HMRF (HHSRF) grants

Grant agency/ amount (HK\$)	PI or Co-I (%)	Project title and reference no.	External competitive	Year
HMRF \$990,680	PI	A Randomized Controlled Trial to Assess the Effectiveness and Safety of Acupuncture for Overactive Bladder: A Study in Hong Kong Patient Population. 13141941.	Yes	09/2016 - 08/2018

HMRF \$937,274	PI	Clinical Assessment of a Topical Application Containing Radix Rubiae for Plaque-Type Psoriasis - A Randomized, Double-blind, Vehicle-Controlled and Left-Right Comparison Pilot Study. 11121011.	Yes	02/2015 - 07/2016
HMRF \$722,276	Co-I	The role of huperzine A in treatment of β amyloid associated-neuropathology in a mouse model of Alzheimer's disease. 12131431.	Yes	06/2015 - 05/2017
HMRF \$992,288	Co-I	Is it safe to use estrogenic Chinese herbal medicines in breast cancer patients? – A preclinical evaluation. 12130471.	Yes	07/2015 - 06/2017
HHSRF 298,680	PI	How likely do Chinese medicines and pharmaceutical anti-diabetic agents interact? A comprehensive systematic review on clinical evidence. 10110821.	Yes	08/2012 - 07/2013
HMRF \$799,320	PI	Exploring the potential of <i>Sophora flavescens</i> (Ku-Shen) as a booster for antiretroviral therapy through Cytochrome P450 3A4 inhibition. 07080171.	Yes	04/2009 - 03/2011

ITF grants

Grant agency/ amount (HK\$)	PI or Co-I (%)	Project title	External competitive	Year
Innovation and Technology Support Programme, 887,000	Co-I	Development of Novel Skin Whitening Cosmetic Products with Natural Tyrosinase Inhibitors as Key Ingredients.	Yes	1/4/2010 - 30/9/2011 1

Other competitive research grants

Grant agency/ amount (HK\$)	PI or Co-I (%)	Project title	External competitive	Year
HA Chinese Medicine Central Research Committee, \$846,768	PI	Effectiveness of Acupuncture for the Treatment of Post-Stroke Dysphagia: A Pragmatic Trial Comparing Real Acupuncture Treatment with Waiting List.	Yes	11/2013 – 04/2016
The Hong Kong Scholars Program, \$250,000	PI	Exploring Brusatol as a New Anti-Pancreatic Cancer Agent: Biological Evaluation and Mechanistic Studies.	Yes	02/2011 – 01/2013

Non-Competitive Grants

Direct grants

Grant agency/ amount (HK\$)	PI or Co-I (%)	Project title	External competitive	Year
Direct Grant \$35,000	PI	Exploring Isorhynchophylline as a Novel Anti-Parkinson's Disease Agent: In Vivo and In Vitro Evaluations on Its Efficacy and Action Mechanisms.	No	06/2016 – 05/2017
Direct grant, 60,000	PI	In Vivo Mechanistic Studies on Acupuncture for Hypertension.	No	01/2011 – 01/2013
Direct grant 73,000	PI	Investigation of the Involvement of Steroid Receptors in Radix Rubiae-mediated Anti-psoriatic Action	No	01/2010 – 01/2012
Direct grant, CUHK; 10,000	PI	Effect of Huperzine A on Neurogenesis in Wild-type Mice and in a Mouse Model of Alzheimer's Disease	No	01/2009 – 01/2010

Direct grant, PI CUHK; 49,600	Studies of Selected Chinese Medicines for Optic Neuroprotection with Potential Application in the Prevention of Glaucomatous Optic Nerve Damage	No	01/2008 - 01/2010
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RESEARCH CONTRACTS

Principal Investigator	Project title & reference no.	Granting agency	Project period	Funded amount (HK\$)
Prof. Zhi-Xiu Lin	Survey on Potential Interactions between Chinese Medicines and Pharmaceuticals, Western Herbs and Dietary Supplements.	UnityHealth (Greater China) Ltd, Hong Kong	1 May 2016 – 30 April 2017.	460,000