

() / **FDCT Projects (Finished)**

| Project No. | Project Title | Project Leader |
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| <u>2011</u> | | |
| 003/2005/A | Research on clinical efficacy & molecular mechanism of Zhi-Kuo-Ning formula on airway inflammation, airway remodeling in Bronchiectasis | Qi-Biao Wu Shi-Hong Cao |
| 028/2005/A | Research to manufacture the health food of San-Ye JTC | Min Chen |
| 032/2006/A2 | A research of medicine in health care for busy life people | Ping Xiang |
| 020/2007/A2 | Study on the analgesic components of the traditional Chinese medicine <i>Stauntonia chinensis</i> | Christopher Wai-Kei Lam |
| 039/2007/A3 | Rapid identification and molecular typing of Legionella in hospitals and public environment in Macau | Chuan-Jun Li Zi-Yao Mo |
| 043/2007/A3 | () Study on the active component(s) from traditional Chinese medicine against respiratory viral infections immobilized by viral receptors on the membrane of respiratory cells or immune cell | Quan Zhu Zi-Yao Mo |

2012

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| 021/2008/A | A novel evolutionary computation framework for complex optimization problems | Yong Liang |
| 039/2009/A | Establishment of cell line expressing counter Interferon activity gene and its application for isolation of influenza virus | Zi-Feng Yang |
| 071/2009/A3 | FAK Drug screening technology targeting FAK gene expression in anti-tumor metastasis and its application | Zi-Chun Hua |
| 091/2009/A | HSP27 HSP70 TRAIL Regulation of heat shock proteins HSP27 or HSP70 on lung tumor cell's sensitivity to TRAIL- induced apoptosis and the related mechanism | Qi-Lai Huang |
| 003/2011/A | Investigation on solid self-microemulsifying drug delivery systems of scutellarin | Tao Yi Hui-Bi Xu |

2013

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| 012/2009/A1 | Study of preparation and pharmacological effect of Ruthenium complex containing ingredient of traditional Chinese medicine | Guo-Gang Liang |
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2014

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| 027/2007/A2 | Study on the anti-anginal efficacy of artificial musk orally disintegrating tablets | Qi-Biao Wu |
| 048/2008/A3 | The study of sodium ferulate combined with bone marrow stromal cells(BMSCs) treatment ameliorating rat brain ischemic injury after stroke | Yong-Hua Zhou Wei-Kang Wu |
| 016/2009/A1 | The study of the condition and mechanism of Schwann cells basement membrane formed in vitro | Jian-Qiang Qin |

2015

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| | Rh2E2 | |
| 035/2011/A2 | Identification of the molecular mechanisms and drug action targets of Rh2E2, a new derivative of ginsenoside, on anti-cancer by using proteomics technology | Liang Liu |
| 051/2012/A | Investigation on oral self-emulsifying pulsatile drug delivery systems of Berberine | Tao Yi |
| 093/2012/A | Study on molecular mechanism of hepatotoxicity induced by Toosendanin | Na Li |

2016

2017

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| 007/2013/A | Study on the molecular mechanisms of protective effects of muscone on myocardial ischemia - reperfusion injury in rats | Qi-Biao Wu Wei-Xing Shen |
| 065/2011/A3 | Studies of the synergistic anti-inflammatory effect and influence on the immune organs between dexamethasone and flavanones derived from Chinese medicinal herbs | Ting Li |
| 066/2011/A3 | P450 Investigation on the oxidation metabolism of Ginsenosides: identification of the oxygenated metabolites and analysis of the responsible P450 isoforms | Jing-Rong Wang |
| 073/2011/A3 | Application of living-cell imaging technique in research of cardiomyocyte mitochondrial dynamics and mechanistic study of anti-ischemia heart disease effects of protopanaxatriol-type Ginsenosides | Pei Luo |
| 050/2012/A2 | The molecular mechanism of Indirubin and its derivatives effect on hematopoietic and leukemic stem cells | Polly Wai-In Chan |
| 090/2012/A3 | Studies of the bioavailability enhancer of Silymarinin and the candidate agent for treatment of non-alcoholic steatohepatitis | Ying Xie |
| 094/2012/A3 | Investigation on supersaturating lipid-based microcapsules to improve oral bioavailability of poorly water-soluble Flavonoids | Christopher Wai-Kei Lam |

2018

LC-MS LC-NMR

039/2011/A2

Establishment of LC-MS and

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| 086/2013/A3 | Studies on new approaches of quality research in Aconitum carmichaeli based on NMR and hyphenated techniques | Na Li |
| 056/2016/A2 | Research on lingnan chinese materia medica standards-- Polygonum chinense L. | Zhi-Feng Zhang |

2019

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|-------------|--|----------------------|
| 039/2016/A | <p>AMPK H2S</p> <p>The study of AMPK in the treatment effects of H2S and its therapeutic potential against anemia of inflammation</p> | Yi-Zhun Zhu |
| 0006/2018/A | <p>UHPLC-DAD-TOF-MS</p> <p>The new application of using analytical method (UHPLC-DAD-TOF/MS) in identifying novel compounds from neuroprotective herbal medicines for binding of β-amyloids</p> | Betty Yuen-Kwan Law |
| 092/2012/A3 | <p>Establishment of the innovative methods and standards for quality control of the pharmaceutical preparations derived from Chinese herbal formula by using polytechnic cutting-edge chemical and biological technologies</p> | Liang Liu |
| 019/2013/A1 | <p>Study of multi-target effects and mechanisms of the active ingredients against influenza virus from Radix Isatidis</p> | Nan-Shan Zhong |
| 021/2013/A1 | <p>Investigation on the novel candidate anti-cancer drug from Chinese herbal medicine by modulating metabolic profiles of cancer cells</p> | Elaine Lai-Han Leung |
| 052/2013/A2 | <p>Role of microtubule motors in aging myocardial ischemic preconditioning and effects of Piceatannol and its dimers</p> | Lei Luo |
| 081/2013/A3 | <p>ROR γ Th17</p> <p>Suppression of Th17 differentiation and autoimmunity by ROR ligands derived from Chinese medicinal compounds</p> | Ting Li |
| 084/2013/A3 | <p>Lead optimization of triterpenoids as sarcoplasmic / endoplasmic reticulum Ca^{2+}-ATPase (SERCA) pro-inhibitor for therapeutic intervention of prostate cancer</p> | Vincent Kam-Wai Wong |

087/2013/A3

Study on mechanism of action of compound 1014 reWⁿBT/F5 996 Tf1 0 0 1 1124

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| 090/2013/A3 | Characterization and isolation of active autophagy components from Radix Polygalae (Yuan Zhi) for the modulation of age-related neurodegenerative diseases | Betty Yuen-Kwan Law |
| 014/2014/A1 | Development of a tumor vasculature targeting nanostructure-based drug delivery system for reducing toxicity and enhancing anticancer efficacy of natural products | Xiao-Ming Zhu |

028/2014/A1 The targets and mechanisms of oridonin against esophageal cancer studied by bionanotechnology

2020

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| 056/2013/A2 | Calotropis Cardenolide Chemical studies on Cardenolides in Calotropis plants and evaluation of their Hypoxia Inducible Factor-1 (HIF-1) inhibitory activity | Li-Ping Bai |
| 089/2013/A3 | - - Research on drug safety evaluation based on microfluidic technology | Guo-On Luo |
| 099/2013/A3 | Novel biomarker selection methods for high-dimensional data analysis in genomics | Yong Liang |
| 015/2014/A1 | Apc ^{min/+} Investigation of the impact of Gynostemma saponins on the gut microflora and host intestinal mucosal immune responses in the Apc ^{min/+} colorectal cancer mouse model: implications for diseases and personal therapy | Wendy Wen-Luan Hsiao |
| 037/2014/A1 | Chemical profiling combined with bioactivity correlation for establishing novel quality control method of new proprietary Chinese medicine Guang-Xin-Kang-Tai | Hau Zhou |
| 071/2014/A | Studies of the bioactive components on diabetic metabolic endotoxemia from cortex mori based on butyricacid metabolism in the gut | You-Hua Xu |
| 077/2014/A2 | Comparative study on the influences of gut micro biota of Chinese and Western medicine for treatment of Rheumatoid arthritis | Jun Wang |
| 006/2015/A1 | DNA Using nucleotide metabolomics to investigate the impacts of tonic Chinese herbs on DNA damage and repair | Wei Zhang |
| 034/2015/A1 | Screen for glucose metabolism modulators and evaluation of anticancer effects | Wen-Zhe Ma |
| 084/2015/A | Mechanism of indole alkaloids from traditional Chinese medicine against influenza virus through regulation of the interferon signaling pathway | Zi-Feng Yang |
| 086/2015/A3 | Role and therapeutic intervention of reactive oxygen species and redox balance in regulation of non-small cell lung cancer | Elaine Lai-Han Leung |

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| 003/2016/A1 | Study on the mechanism of neurotoxicity and neuroprotection based on the homeostasis of neurotransmitters in vivo | Na Li |
| 010/2016/A1 | T | |

2021

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| 055/2016/A2 | Study of hydrogen sulfide against inflammatory diseases: epigenetics and its target molecule | Yi-Zhun Zhu |
| 0009/2019/A | | Xiao-Lin Wang |
| 0033/2020/A | Synthesis and structural modification of Remdesivir specific for treating novel coronavirus pneumonia | Zhi-Hong Jiang |
| 0039/2020/A | Development and application of COVID-19 virus point-of-care testing reagent | Wen-Zhe Ma |
| 0040/2020/A | Study on the effects of Shashen-maidong decoction for the recovery of covid-19 infected pneumonia patients | Ying Xie |
| 0042/2020/A | A meta-transcriptomic based characterization of 2019-nCoV infections and its application to identify and prevent sever case pneumonia | Zi-Feng Yang |
| 0053/2020/A | 2019 Research and development of air and surface disinfection product for 2019-nCoV from Chinese medicines | Hua Zhou |
| 0055/2020/A | 3CL Discovery of new small molecule inhibitors targeting 3CL protease of novel coronavirus and its activity evaluation | Xiao-Jun Yao |
| 0057/2020/A | Discovery of the potentials of active compounds derived from Chinese herbal medicine for anti-COVID-19 virus | Liang Liu |
| 0058/2020/A | Spike/ACE2 2019-nCoV Study on the therapeutic strategies to suppress 2019-nCoV via targeting the interaction between Spike and ACE2 | Ting Li |
| 0059/2020/A | Study on the treatment of covid-19 infected pneumonia patients with cytokines storm and pulmonary fibrosis by innovative drugs derived from Chinese herbal medicine | Hu-Dan Pan |
| 0064/2020/A | Research and development of specially-effective Chinese medicines against novel coronavirus pneumonia | Li-Ping Bai |

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| 0087/2020/A | Investigation of Ozonide analogs for overcoming drug resistance in cancer and study of their mechanism of action | Paolo-Saul Coghi |
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