Faculty/ Institutes	Ref No.	Project Title in English	Project Title in Chinese	Project Description	Application Requirement	Contact Points		
						Contact Person(s)	Contacts	Consultation hours (29 Jan - 2 Mar 2018)
ICMS	MYRG2015-00214-ICMS- QRCM	Pharmacological elucidation of novel anti-Parkinson's leads from Chinese medicines in animal models of Parkinson's disease	通過帕金森病動物模型闡明新型中藥先導化合物的作用 機制	In this study, student will validate the therapeutic use of the leads isolated from Chinese medicine in pre-clinical animal models (e.g. zebrafish) of PD by protecting neurons, or even halts ongoing neurodegeneration and locomotors deficit caused by neurotoxin.	Biomedical sciences related background; Cumulative GPA 2.0 or above	Prof. Simon Lee	Email: simonlee@umac.mo	By appointment
ICMS	MYRG2016-00246-ICMS- QRCM	Negative regulation of leukocyte degranulation through Ral GTPase	RalGTPase對白細胞脫顆粒的負調控	Granule release is closed related to health problems such as allergy, tissue injury and inflammation. This project studies how white blood cells release granules and what is the regulatory mechanism.	Cumulative GPA 2.0 or above; interest in lab work; basic knowledge in biology.	Prof. Ye	Email: richardye@umac.mo Tel. 8822 4690	Monday 14:00 - 16:00 Wednesday 14:00 - 16:00
ICMS	MYRG2016-00165-ICMS- QRCM	Supramolecular nanostructures based on mono- functionalized cucurbit[7]uril and their applications in drug delivery	基於單官能團化改性的七元瓜環製備的超分子納米結構 及其在藥物傳遞中的應用	We aim to prepare novel macrocyclic molecules that may work as building-blocks in nanomedicine, for improved drug delivery	Any students interested in laboratory research work, with cumulative GPA at 2.00 or above	Dr. Ruibing Wang	Email: rwang@umac.mo Tel: 8822-4689	Monday 09:00-10:00 Tuesday 09:00-10:00
ICMS	MYRG2016-00152-ICMS- QRCM	Role for serum amyloid A in the pathological changes in Alzheimer's disease	血清澱粉樣蛋白對阿爾茲海默症病理變化的作用	This project studies how serum amyloid A influences Alzheimer's disease in laboratory models.	Cumulative GPA 2.0 or above; interest in lab work; basic knowledge in biology.	Prof. Ye	Email: richardye@umac.mo Tel. 8822 4690	Monday 14:00 - 16:00 Wednesday 14:00 - 16:00
ICMS	MYRG2016-00151-ICMS- QRCM	Discovery of small molecule inhibitors of the TLR1- TLR2 protein-protein interaction for the treatment of inflammatory bowel disease	TLR1-TLR2 蛋白相互作用的小分子抑制劑治療炎症性腸 炎的研究	We aim to explore the potential application of the TLR1-TLR2 heterodimerization inhibitos as theraputic agents for the treatment of inflammatory bowel disease (IBD).	Any studetns interested in research work with biomedical sciences related background; Cumulative GPA 2.0 or above	Prof. Duncan Leung	Email: duncanleung@umac.mo Tel: 8822 4688	By appointment
ICMS	MYRG2016-00144-ICMS- QRCM	Screening of antithrombotic natural products by network analysis and bio-affinity extraction	網絡分析結合親和生物萃取法篩選天然抗血栓活性成分	We aim to establish a network-based method to screen the active compounds from antithrombotic natrural products (mainly herbal mdicines); then, the potential pharmacological activity will be validated by bio-affinity extraction.	Any student interested in the study of antithrombotic Chinese medicines and network-based research, GPA at 2.80 or above are welcome to join us this summer.	Ms. Huali Zuo	E-mail: 1306388729@qq.com Tel: +86 13883263108; +86 17765981625.	Monday - Friday 12:30 - 13:30; 22:00 - 23:00
ICMS	MYRG2016-00133-ICMS- QRCM	Discovery and characterization of novel functional peptides from venomous organisms in Brazil	在巴西的毒液性生物中發現新型肽類毒素及進行特性描 述	A wide variety of marine animals (e.g. sea anemones and coral) produce and secrete venoms for	Any student who is interested in marine organism research work, with cumulative GPA at 2.00 or above	Prof. Simon Lee	Email: simonlee@umac.mo	By appointment
ICMS	MYRG2016-00129-ICMS- QRCM	Pharmacological elucidation of indolin-2-one pharmacophore containing compounds as novel anti- Parkinson's leads through multi-targeted neuroprotective mechanisms	通過多靶向神經保護機制對含 <b>2-</b> 吲哚酮藥效基團的抗帕 金森氏症新藥作藥理闡釋	In this study, we will validate the therapeutic use of the indolin-2-one pharmacophore containing compounds in pre-clinical animal models of PD by protecting neurons, or even halts ongoing neurodegeneration and locomotors deficit caused by neurotoxin. The investigation of molecular mechanisms underlying the neuroprotective effects of the leads may reveal previously unidentified novel mechanisms.	Biomedical sciences related background; Cumulative GPA 2.0 or above	Prof. Simon Lee	Email: simonlee@umac.mo	By appointment
ICMS	MYRG2016-00105-ICMS- QRCM	Evaluate the Therapeutic Effect and Underlying Mechanisms of Action of Celastrol Against Hepatitis C Virus-Induced Inflammation	雷公藤紅素對丙型肝炎病毒引起炎症治療活性及機理的 研究	Participated student(s) will perform screening assay, basic laboratory assays in pharmacology and biomedical sciences.	Biomedical sciences related background, interested in laboratory research work; Cumulative GPA 2.0 or above	Dr. Ying Wang	Email: EmilyWang@umac.mo Tel: 8822 4673	By appointment
ICMS	MYRG2016-00090-ICMS- QRCM	Purification, in vivo antidepressant disorder activity, transportation and pharmacokinetic evaluations of inulin-type fructooligosaccharides in Morinda officinalis after oral administration	巴戟天菊型寡糖的純化, 體內抗抑鬱活性, 口服轉運機制 及藥動學的研究	This project will investigate the absorption and bioactivity of oligosaccharides	Any students interested in laboratory research work, with cumulative GPA at 2.00 or above	Dr. Ying Zheng	Email: yzheng@umac.mo	Monday - Friday 11:00 - 12:30
ICMS	MYRG2016-00043-ICMS- QRCM	Isolation and Pharmacological Evaluation of Hydroxyl- containing Tanshinones (Tanshinols) from Salvia miltiorrhiza Bunge (Danshen)	丹參中含羥基丹參酮類成分(丹參醇類)的分離與藥理 活性研究	To investigate the effect and mechanism of several compounds isolated from Danshen, mainly focus on cell death	Any student interested in the study of pharmacology,the mechanism of TCM	Dr. Xiuping Chen	Email: xpchen@umac.mo	Monday - Friday 10:00 - 11:00
ICMS	MYRG2016-00040-ICMS- QRCM	Computational Prediction of Physical Stability of Solid Dispersions	計算預測固體分散體的物理穩定性	artifitial intelligence system for pharmaceutical formulations	computer skills and machine leaning	Dr. Defang Ouyang	Email: defangouyang@umac.mo Tel: 8822 4514	By appointment
ICMS	MYRG2016-00038-ICMS- QRCM	An intelligent system for cyclodextrin formulation development	環糊精處方智能系統	artifitial intelligence system for pharmaceutical formulations	computer skills and machine leaning	Dr. Defang Ouyang	Email: defangouyang@umac.mo Tel: 8822 4514	By appointment
ICMS	MYRG2016-00023-ICMS- QRCM	Elimination of regulatory T cell activity by targeting TNFR2 as a novel approach to breast cancer immunotherapy	以TNFR2為靶標抑制調節性T細胞活性作為新的乳腺癌 免疫療法的研究	A key issue for devising effective immunotherapy to cancer is to eliminate the activity of CD4+FoxP3+ T regulatory cells (Tregs). We hypothesize that depletion of TNFR2+ Tregs or inhibition of TNF-TNFR2 interaction may efficiently eliminate tumor-associated Treg activity while minimizing the loss of tumor-reactive effector cells, and consequently may liberate endogenous anti-tumor immunity and can enhance the efficacy of immunotherapy and chemoimmunotherapy. We will test this hypothesis through a series in vitro and in vivo studies, by employing both transplantable and spontaneous mouse cancer models. (For more background information: http://news.bioon.com/article/6697743.html)	Any student interested in the study of cancer immunotherapy are welcome to join us this summer.	Prof. Xin Chen	Email: xinchen@umac.mo Tel: 8822 4513	By appointment
ICMS	MYRG2016-00008-ICMS- QRCM	The use of cucurbit[n]urils in the novel supramolecular formulations of small-molecule kinase inhibitors	瓜環與小分子激酶抑製劑的新型超分子配方	Our project aims to develop a novel supramolecular medicine for improved efficacy and reduced side effects of small kinase inhibitors, for the purpose of cancer treatment.	Any student who is interested in laboratory research work, with cumulative GPA at 2.00 or above	Prof. Simon Lee	Email: simonlee@umac.mo	By appointment
ICMS	MYRG2016-00056-FST	Environmental metagenomic and metabolomic investigation into biospecies and chemical profiling of endophytes from the Macau mangrove	基於宏基因組學和代謝組學對澳門紅樹林植物內生菌多 樣性及其代謝物的研究	1. To isolated bacteria <i>Actinomycetes</i> from Macau mangrove plant samples. 2. To perform whole-genome sequencing and secondary metabolites prediction analysis. 3. To identify the secondary metabolites in the fermentation broth by mass spectrometry.	Any student who is interested in ecology and microbiology research work, with cumulative GPA at 2.00 or above	Prof. Simon Lee	Email: simonlee@umac.mo	By appointment

## List of 2018 Summer Research Programmes (as at 2018-01-26)