

Participants of Undergraduate Research Fellowship (URFP) Programme

2024-25

Name	Curriculum	Year	Project Title of Project/ Directed Studies Course	Supervisor of Project/ Directed Studies Course	Project Title of Summer Research Internship	Internship Supervisor
Chiu Ka Long	BSc(ActuarSc) (4)	3	Dependence structures in multiple life insurances and annuities	Prof K C Cheung, SCDS (Department of Statistics & Actuarial Science)	Peer-to-peer risk-sharing schemes with heterogeneity and infinite-mean losses	Prof Boonen Tim J, SCDS (Department of Statistics and Actuarial Science)
Fong Eugenia King Hin	BSc (4)	4	The Biological Significance of The AVM Pathway in <i>C. Elegans</i>	Prof Chaogu Zheng, School of Biological Sciences	--	--
Ho Sin Yiu	BSc (4)	4	Identification of Protective Factors in Oculomotor Neurons Conferring Resistance to Spinal Muscular Atrophy	Prof Martin C H Cheung, School of Biomedical Sciences	--	--
Liu Jinhui	BSc (4)	3	Evaluating the potential of absolute abundance in human gut microbiome studies	Prof Joshua W K Ho & Prof Alan S L Wong, School of Biomedical Sciences	Characterization of The Structural Variants in the Human Vaginal Microbiome during Pregnancy	Prof Tal Korem, Department of Systems Biology, Columbia University
Or King Long	BSc (4)	4	Asymmetric Transformation of Active Methylene Compounds	Prof Zhongxing Huang, Department of Chemistry	--	--
Wong Chi Lok*#	BSc (4)	4	Revealing SNAI2 as a Pseudo-Primed Substrate of GSK3	Prof Martin C H Cheung, School of Biomedical Sciences	Revealing SNAI2 as a Pseudo-Priming Substrate of GSK3	Prof Martin C H Cheung, School of Biomedical Sciences
Wong Chung Hin*	BSc (4)	4	Pathogenesis of Emerging Respiratory Viruses using Transcriptomics	Prof Chi Wai Michael Chan, School of Public Health	Pathogenesis of Emerging Respiratory Viruses using Transcriptomics	Prof Chi Wai Michael Chan, School of Public Health
Wong On Ki	BSc&MRes (4)	4	A Phylogenetic Investigation of the Emergence of Coronavirus Variants of Concern	Prof Tommy Tsan Yuk Lam, School of Public Health & Prof Simon Y W Sin, School of Biological Sciences	--	--

2023-24

Name	Curriculum	Year	Project Title of Project/ Directed Studies Course	Supervisor of Project/ Directed Studies Course	Project Title of Summer Research Internship	Internship Supervisor
Chan Chun Lai*	BSc (4)	4	Tumor immune microenvironment (TIME) is associated with the survival outcome and progression in triple negative breast cancer	Prof Rio Ryohichi Sugimura, School of Biomedical Sciences	--	--
Choi Hin Hang	BSc (4)	4	Investigating the impact of alternative splicing in sleep regulation of <i>C. elegans</i>	Prof Chaogu Zheng, School of Biological Sciences	--	--
Leung Chi Ho	BSc (4)	4	Effect of stream water quality on the thermal tolerance of freshwater dwarf shrimp <i>Caridina cantonensis</i>	Prof Timothy C Bonebrake, School of Biological Sciences	--	--
Leung Ho Chi	BSc (4)	4	Desymmetric Synthesis of 4,4'-Bis(oxazoline) Ligands and Their Applications	Prof Zhongxing Huang, Department of Chemistry	--	--
Leung Sin Ying	BSc (4)	4	Study of the effect of H3K79me2-Menin interaction on the regulation of alternative splicing	Prof Jason Wing Hon Wong, School of Biomedical Sciences	Study of the Interaction between H3K79me2 and Menin through Integrated Analysis of ChIP-seq and RNA-seq	Prof Jason Wing Hon Wong, School of Biomedical Sciences
Li Kau Chun	BSc (4)	4	Drug Target Identification via Energy Transfer	Prof Chi Ming Che, Department of Chemistry	--	--
Li Wai Lam Verna	BSc (4)	4	Study of how GEN1 endonuclease limits cGAS activation and suppresses innate immune response	Prof Gary Y W Chan, School of Biological Sciences	--	--
Lu Yudi	BSc (4)	3	Target Identification of Traditional Chinese Medicine	Prof Xiaoyu Li, Department of Chemistry	Target Identification of Traditional Chinese Medicine	Prof Xiaoyu Li, Department of Chemistry
Luo Yongqi	BSc (4)	4	Elucidating the Interplay Between Macrophages and Brain Microvascular Endothelial Cells During Systemic Inflammation	Prof Raymond C C Chang, School of Biomedical Sciences	--	--
Mok Yun Kam	BSc (4)	4	Atroposelective Synthesis of Axially Chiral Biaryl Aldehydes via Reductive Desymmetrization	Prof Zhongxing Huang, Department of Chemistry	Atroposelective Synthesis of Axially Chiral Biaryl Compounds	Prof Zhongxing Huang, Department of Chemistry
Wong Ho Cheong	BSc (4)	4	Offshore Buried Paleochannels and Their Influences on Groundwater and Seawater Exchange in the Pearl River Estuary	Prof Jimmy Jiujiu Jiao, Department of Earth Sciences	Offshore Buried Paleochannels and Their Influences on Groundwater and Seawater Exchange in the Pearl River Estuary	Prof Jimmy Jiujiu Jiao, Department of Earth Sciences
Wu Jiaxin	BASc(AppliedAI) (4)	4	Uncertainty estimation of large language models in medical question answering	Prof Yizhou Yu, Department of Computer Science	--	--

Xiao Ziyang*	BASc(AppliedAI) (4)	4	Multi-Modal Representation Learning and its Application in Healthcare: Applying Deep Residual Shrinkage Network in Detecting Sleep Apnea Based on BCG signals	Prof Lequan Yu, Department of Statistics & Actuarial Science	Multi-Modal Representation Learning and its Application in Healthcare: Applying Deep Residual Shrinkage Network in Detecting Sleep Apnea Based on BCG signals	Prof Lequan Yu, Department of Statistics & Actuarial Science
Xue Luhao	BSc (4)	4	Galerkin Proper Orthogonal Decomposition Method for Differential Equations	Prof Zhiwen Zhang, Department of Mathematics	Deep particle method and invariant measures for stochastic dynamic systems	Prof Zhiwen Zhang, Department of Mathematics
Yee Pak On Patrick	BSc (4)	4	Effects of DNMT3a and taVNS regulation in middle-aged animal model	Prof Man Lung Fung, School of Biomedical Sciences	--	--
Zhang Xinyuan	BSc (4)	4	From Fisher to K-FAC: Navigating Optimization in Foundation Models	Prof. Xiaoming Yuan, Department of Mathematics	--	--
Zhou Polly	BSc (4)	4	TME Lego: Assembled Modeling the Solid Tumour Microenvironment	Prof Rio Ryohichi Sugimura, School of Biomedical Sciences	--	--

2022-23

Name	Curriculum	Year	Project Title of Project/ Directed Studies Course	Supervisor of Project/ Directed Studies Course	Project Title of Summer Research Internship	Internship Supervisor
Chan Xiao Jun*	BSc (4)	4	Applying machine learning algorithms to enhance wildfire prediction in Alaska	Dr Jin Wu, School of Biological Sciences	--	--
Chow Cheuk Ying Tweety	BSc (4)	4	Modeling pathogenesis of craniofacial disorders using patient-specific urine-derived stem cells	Dr. Martin C H Cheung, School of Biomedical Sciences	Modeling pathogenesis of craniofacial disorders using patient-specific urine-derived stem cells	Dr. Martin C H Cheung, School of Biomedical Sciences
Djan Matthew	BSc (4)	4	Development and characterization of ID8 Trp53-/- cell line for improved murine model of HGSOc under ascitic fluid shear stress	Prof Alice S T Wong, School of Biological Sciences	--	--
Kang Liang	BSc (4)	4	Investigating the Structural Basis of Human Chromosome Replication and Epigenetic Inheritance by Using Cryo-EM	Dr Yuanliang Zhai, School of Biological Sciences	Investigating the Structural Basis of Nucleosome Assembly Using Cryo-EM	Prof Eva Nogales, Department of Molecular and Cell Biology, University of California Berkeley
Lin Yen Hsu	BSc (4)	4	Design and Synthesis of Gold(I) Complexes with Thiophene-Based Alkynyl Ligands and Their Supramolecular Studies	Prof Vivian W W Yam, Department of Chemistry	--	--
Liu Yiming	BSc (4)	4	Apply a new approach to cluster algebra	Prof Jianghua Lu, Department of Mathematics	--	--
Pang Wing Kwan*	BSc(ActuarSc) (4)	4	Multi-task machine learning for joint diagnosis and prognosis of human cancers	Dr Lequan Yu, Department of Statistics & Actuarial Science	Dependence models in life contingencies	Prof K. C. Cheung, Department of Statistics & Actuarial Science
Wong Clara Shania	BSc (4)	4	Unbiased Selection of DNA-Encoded Libraries on Live Cells	Prof Xiaoyu Li, Department of Chemistry	--	--
Yun Ze	BSc (4)	4	Finiteness of Mordell-Weil Groups of Elliptic Modular Surfaces	Prof Ngaiming Mok, Department of Mathematics	--	--
Zhang Hongzhuo	BSc (4)	4	Investigating Measles Virus DI-RNA as a Potential Vaccine Adjuvant	Prof Dong-Yan Jin, School of Biomedical Sciences	Investigating Measles Virus DI-RNA as a Potential Vaccine Adjuvant	Prof Dong-Yan Jin, School of Biomedical Sciences

2021-22

Name	Curriculum	Year	Project Title of Project/ Directed Studies Course	Supervisor of Project/ Directed Studies Course	Project Title of Summer Research Internship	Internship Supervisor
Cham Ki Ki	BSc (4)	4	Role of Parkin E3 ubiquitin ligase on Influenza A virus protein PB1-F2-mediated innate immune signaling	Prof Dong-Yan Jin, School of Biomedical Sciences	--	--
Chan Chin Tung	BSc (4)	4	Adaptations of Desmos chinensis (Annonaceae) fruits for independent dispersal of seeds	Prof Richard Saunders, School of Biological Sciences	--	--
Chan Ching Si	BSc (4)	4	Understanding the physiological, behavioral and molecular effects of antidepressant drugs on marine organisms	Dr Juan Diego Gaitán-Espitia, School of Biological Sciences	--	--
Chan Pak Hop	BSc(ActuarSc) (4)	3	Limiting Properties of ERD'O S-RÉNYI Graphs	Prof Jeff J Yao, Department of Statistics & Actuarial Science	Limiting properties of Erdős-Rényi graphs	Prof Jeff J Yao, Department of Statistics & Actuarial Science
Garg Anahita	BSc (4)	4	Potential roles and interaction of antioxidants and omega fats in plants and humans	Dr Jetty C Y Lee & Dr Olivier Habimana, School of Biological Sciences	--	--
Karim Kazi Neha	BSc (4)	4	Molecular cloning, tissue distribution and functional studies of phoenixin in fish model	Prof Anderson O L Wong, School of Biological Sciences	--	--

Li Lok Ka	BSc (4)	4	Relationship between AMPK-dependent BDNF pathway and KLF15 on fatty acid oxidation in skeletal muscle	Dr Chi Bun Chan, School of Biological Sciences	Relationship between AMPK-dependent BDNF pathway and KLF15 on fatty acid oxidation in skeletal muscle	Dr Chi Bun Chan, School of Biological Sciences
Liu Xinqi	BSc (4)	4	The role of extracellular adenosine signaling on the immune microenvironment of HCC	Prof Jiandong Huang, School of Biomedical Sciences; Dr Carmen C L Wong, Department of Pathology	--	--
Mia Md Bayezid	BSc (4)	4	GEN1 in processing recombination and replication intermediates	Dr Gary Y W Chan, School of Biological Sciences	GEN1 in processing recombination and replication intermediates	Dr Gary Y W Chan, School of Biological Sciences
Ouyang Xiangyu	BSc (4)	4	Localization of the FYVE Domains of Spire1 and Spire2 Proteins at Microirradiation-induced DNA Damage Sites	Prof Michael S Y Huen, School of Biomedical Sciences	Localization of the FYVE Domains of Spire1 and Spire2 Proteins at Microirradiation-induced DNA Damage Sites	Prof Michael S Y Huen, School of Biomedical Sciences
Shah Aashana Chetan	BSc (4)	4	Quantifying the Metastatic Propensity of Cancer Cells that Undergo Peritoneal Metastasis as a process	Prof Alice S T Wong, School of Biological Sciences	Understanding the difference in gene expression that underlies cancers that undergo peritoneal metastasis as a process	Prof Alice S T Wong, School of Biological Sciences
Singhal Kush	BSc (4)	4	Frieze Patterns arising from Dynkin Diagrams	Prof Jianghua Lu, Department of Mathematics	--	--
Siu Tsz Ho *#	BSc (4)	4	Development of Chemiluminescent Probes for Detecting Reactive Oxygen Species	Prof Dan Yang, Department of Chemistry	Development of Chemiluminescent Probes for Detecting Reactive Oxygen Species	Prof Dan Yang, Department of Chemistry
Tan Tixuan	BSc (4)	3	Edge states in graphene nanoribbon	Prof Wang Yao, Department of Physics	Edge states in graphene nanoribbon	Prof Wang Yao, Department of Physics
Tang Tze Tung	BSc (4)	4	Characterisation of Mitochondrial Proteome Changes during SARS-CoV-2 ORF9b Expression by Rapid Immunopurification	Prof Dong-Yan Jin, School of Biomedical Sciences	Characterisation of Mitochondrial Proteome Changes during SARS-CoV-2 ORF9b Expression by Rapid Immunopurification	Prof Dong-Yan Jin, School of Biomedical Sciences
Wang Zihan	BSc (4)	4	Planar Cell Polarity (PCP) is Unlikely Transduced Through Frizzled-Vangl Interaction	Prof Jiandong Huang, School of Biomedical Sciences	Planar Cell Polarity is Unlikely Transduced Through Frizzled Vangl Trans interaction	Prof Jiandong Huang, School of Biomedical Sciences
Wong Kwan Yuen *	BSc (4)	4	Investigation of gold complexes as anti-cancer agent	Prof Chi Ming Che, Department of Chemistry	--	--
Xiang Jie	BSc (4)	4	Exploring environmental control of photosynthesis capacity between temperate deciduous and evergreen trees	Dr Jin Wu, School of Biological Sciences	Quantitative assessments of differential physiological trait acclimations of deciduous vs. evergreen trees across large environmental gradients in the temperate regions through meta-analysis	Dr Jin Wu, School of Biological Sciences
Xu Xinshu	BSc (4)	4	Characterization of sPDZD2-GPR161 interaction in the negative regulation of Hedgehog signaling	Dr Kwok Ming Yao, School of Biomedical Sciences	Characterization of sPDZD2-GPR161 interaction in the negative regulation of Hedgehog signaling	Dr Kwok Ming Yao, School of Biomedical Sciences
Ying Yui Wang	BSc (4)	4	Fire Weather Indices for Hong Kong and Future Change	Dr Jed Oliver Kaplan, Department of Earth Sciences	--	--
Zhang Jiahao	BSc (4)	4	Study of physics-informed deep neural networks in solving partial differential equations	Dr Zhiwen Zhang, Department of Mathematics	--	--
Zhang Maoqi	BSc (4)	4	Application of A Machine Learning Framework that accelerates the solution of ODEs and PDEs	Dr Guanglian Li, Department of Mathematics	Comparison of Numerical Methods of Computation of Differential Equations	Dr Guanglian Li, Department of Mathematics

2020-21

Name	Curriculum	Year	Project Title of Project/ Directed Studies Course	Supervisor of Project/ Directed Studies Course	Project Title of Summer Research Internship	Internship Supervisor
Chan Alistair Kai Chak	BSc (4)	4	Combination therapy in nanoparticles encapsulating curcumin against Alzheimer's Disease	Dr Aviva S F Chow, Department of Pharmacology and Pharmacy; Dr Dong-Yan Jin, School of Biomedical Sciences	--	--
Chan Timothy	BSc (4)	3	Detecting alternative promoter usage in hepatocellular carcinoma and nasopharyngeal carcinoma using 5'-biased sequencing data	Dr Joshua W K Ho, School of Biomedical Sciences	--	--
Cheung Chin Shek	BSc (4)	4	Methods in the study of intestinal microbiota: in vitro colon model and in vivo samples	Dr Hani El-Nezami, School of Biological Sciences	Optimization and validation of cholesterol and oxysterols measurement in HepG2 cells using LC-MS/MS	Dr Carlos Gomez Gallego, School of Medicine, University of Eastern Finland
Du Zhixu	BSc (4)	4	Sign Language Recognition	Prof Michael K P Ng, Department of Mathematics	Learning Invariant Information in Machine Learning	Prof Kangwook Lee, Department of Electrical and Computer Engineering, University of Wisconsin-Madison
Gupta Saumya	BSc (4)	4	Testing the effect of ocean acidification on the camouflaging behavior of sea urchin <i>Salmacis sphaeroides</i>	Dr Bayden Russell, School of Biological Sciences	--	--

Kim Sehong	BSc (4)	4	Unravelling the Effect of Maph-1.3 on ALM Touch Receptor Neurons of <i>Caenorhabditis elegans</i>	Dr Chaogu Zheng, School of Biological Sciences	Homology-based search for microtubule associated proteins in <i>Caenorhabditis elegans</i>	Dr Chaogu Zheng, School of Biological Sciences
Lai Wenjing	BSc (4)	4	Understanding the molecular mechanism of congenital scoliosis	Dr Bo Gao, School of Biomedical Sciences	--	--
Li Kam Yun	BSc (4)	4	Mesoporous chiral metal organic framework (CMOF) for heterogenous asymmetric photocatalyst	Dr Jian He, Department of Chemistry	Mesoporous chiral metal organic framework (CMOF) for heterogenous asymmetric photocatalyst	Dr Jian He, Department of Chemistry
Li Pak Yi	BSc (4)	4	Exploring the methods of increasing the provably secure key rate in quantum cryptography	Prof Hoi Fung Chau, Department of Physics	--	--
Lim Hui Yuan	BSc (4)	4	Modelling Alzheimer's and Parkinson's Disease in <i>C. Elegans</i>	Dr Chaogu Zheng, School of Biological Sciences	--	--
Lou Yuchen*	BSc (4)	3	First order algorithms for optimization problems in data science	Prof Xiaoming Yuan, Department of Mathematics	First Order Algorithms for Optimization and Zeroth-order Optimization	Prof Wotao Yin, Department of Mathematics, The University of California, Los Angeles
Szeto Dei Men*	BSc (4)	4	Investigating the role of DLC1-i1 and the molecular regulation of its expression in embryonic chick spinal motor neurons using CRISPR/Cas9 genome-editing approach	Dr Martin C H Cheung, School of Biomedical Sciences	Investigating the role of DLC1-i1 and the molecular regulation of its expression in embryonic chick spinal motor neurons using CRISPR/Cas9 genome-editing approach	Dr Martin C H Cheung, School of Biomedical Sciences
Tsang Hiu Yu	BSc (4)	4	Ectoparasites of bats in Hong Kong and specificity of host-parasite interaction	Dr Simon Y W Sin, School of Biological Sciences	--	--
Yip Ka Hei Anson	BSc (4)	5	Assessing Functional Connectivity of Urban Green Spaces for Butterflies in Highly Urbanized Landscape	Dr Timothy C Bonebrake, School of Biological Sciences	--	--
Zhang Xiaotian	BSc (4)	4	Identification and Characterization of Vangl2 Interactome Using Proximity-dependent Biotinylation	Dr Bo Gao, School of Biomedical Sciences	Identification and Characterization of Vangl2 Interactome Using Proximity-dependent Biotinylation	Dr Bo Gao, School of Biomedical Sciences
Zhang Zheng	BSc (4)	3	The impact of COVID-19 epidemic on the conservation status of pangolins	Dr Timothy C Bonebrake, School of Biological Sciences	A theoretical framework for wildlife consumption motivation studies	Dr Timothy C Bonebrake, School of Biological Sciences
Zheng Yahuan*#	BSc(ActuarSc) (4)	4	Parameter Estimation for Reflected Fractional Ornstein-Uhlenbeck Process	Prof Jeff Jianfeng Yao, Department of Statistics & Actuarial Science	On the Critical Behavior of Erdős-Rényi Random Graphs	Prof Jeff Jianfeng Yao, Department of Statistics & Actuarial Science

2019-20

Name	Curriculum	Year	Project Title of Project/ Directed Studies Course	Supervisor of Project/ Directed Studies Course	Project Title of Summer Research Internship	Internship Supervisor
Chiu Pak Wing	BSc (4)	4	The transcriptional regulation of <i>Irx3</i> and <i>Irx5</i> in mouse inner ear	Prof Mai Har Sham, School of Biomedical Sciences	--	--
Kong Wang Yeuk	BSc (4)	4	Asymmetric (4+3) cycloaddition of epoxy enol silane with dienes catalyzed by Chiral Binaphthyl Disulfonic Acid	Prof Pauline Chiu, Department of Chemistry	Asymmetric (4+3) cycloaddition of epoxy enol silane with dienes catalyzed by Chiral Binaphthyl Disulfonic Acid and Derivatives	Prof Pauline Chiu, Department of Chemistry
Lam Si Yu	BSc (4)	4	Determination of Breeding Grounds of the Siberian Rubythroat and Yellow-Breasted Buntings with Stable Isotopes and Geolocator Tracking	Dr Timothy C Bonebrake & Dr Caroline Dingle, School of Biological Sciences	--	--
Liang Shuang	BSc (4)	4	Algebraic and analytic methods on complex algebraic geometry	Prof Ngai Ming Mok, Department of Mathematics	--	--
Sun Xianlin	BSc(ActuarSc) (4)	4	Bootstrap post-model selection inference under a general framework	Prof Stephen M S Lee, Department of Statistics & Actuarial Science	--	--
Tang Xun	BSc (4)	3	Adaptive numerical methods for long-time integration and model reduction with applications in computing effective diffusivity and Anderson localization	Dr Zhiwen Zhang, Department of Mathematics	Demonstration of generic Quantum controllability under QAOA setting	Prof Lin Lin, Department of Mathematics, University of California Berkeley
Tsang Kin Ming	BSc (4)	4	Representations of integers by mixed sums of weighted m-gonal numbers and squares	Dr Benjamin R Kane, Department of Mathematics	--	--
Wong Yin Pok	BSc (4)	4	Synthesis of Luminescent Metal Complexes and their Functional Studies for Sensing	Prof Vivian W W Yam, Department of Chemistry	Coordination chemistry and photophysical characterization of lanthanide complexes	Dr Rebecca Abergel, Department of Nuclear Engineering, University of California Berkeley
Xu Hongting	BSc (4)	4	The Role of ISM1 in hematopoiesis	Prof Zhongjun Zhou, School of Biomedical Sciences	--	--

Xu Wan	BSc (4)	4	Elucidating the Role of SOX10 in Neuroblastoma	Dr Martin C H Cheung, School of Biomedical Sciences	--	--
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2018-19

Name	Curriculum	Year	Project Title of Project/ Directed Studies Course	Supervisor of Project/ Directed Studies Course	Project Title of Summer Research Internship	Internship Supervisor
Gu Jiacheng	BSc(4)	4	Role of Long Non-coding RNAs in Cancer Stem Cells	Dr Jiangwen Zhang, School of Biological Sciences	Role of Phosphorylation of Ybx1 in the Translation Control of Maternal sqt RNA and Nodal Signaling Pathway in Zebrafish Embryogenesis	Prof Karuna Sampath, Warwick Medical School, The University of Warwick
Ho Sik Yin	BSc(4)	4	Use of CombiGEM-CRISPR in screening potential novel drug combinations for liver cancer	Dr Alan S L Wong, School of Biomedical Sciences	--	--
Kwan Hiu Lam Rachel*#	BSc(4)	4	Role of TRPC1-induced Ca^{2+} -signaling in neuromuscular synapse development	Dr Chi Wai Lee, School of Biomedical Sciences	Role of TRPC1-induced Ca^{2+} -signaling in neuromuscular synapse development	Dr Chi Wai Lee, School of Biomedical Sciences
Lai Siu Lun Michael	BSc(4)	4	Using transparent brain to investigate spreading of neurodegeneration in Parkinson's disease	Dr Raymond C C Chang, School of Biomedical Sciences	Using neuronal tracing and passive transparent brain to visualize neuronal pathway	Dr Raymond C C Chang, School of Biomedical Sciences
Lee Tak Wang Terence	BSc(4)	4	IAP PB1-F2 cytotoxic sequence mediates NLRP3 inflammasome activation via oxidative stress induction	Prof Dong-Yan Jin, School of Biomedical Sciences	Influenza A virus PB1-F2 cytotoxic motif promotes self aggregation to elicit NLRP3 dependent IL-1 β release	Prof Dong-Yan Jin, School of Biomedical Sciences
Leung Tsz Kin Calvin	BSc(4)	4	Oviposition preference and thermal tolerance of stag beetles (Family: Lucanidae)	Dr Timothy C Bonebrake, School of Biological Sciences	--	--
Leung Yee Man	BSc(4)	4	Chloroplast genomes comparison of mycoheterotrophic Exacum paucisquamum and autotrophic Exacum tetragonum	Prof Richard Saunders, School of Biological Sciences	--	--
Shukla Yash Sanjaykumar	BSc(4)	4	Autonomously-produced synthetic push-pull motif	Dr Julian A Tanner, School of Biomedical Sciences	Autonomously-produced synthetic push-pull motif	Dr Thomas Ouldrige, Department of Bioengineering, Imperial College London
Wan Lok Yee	BSc(4)	4	Preparation of recombinant protein of adiponectin in E. coli and testing of its bioactivity in cell lines with adiponectin receptor expression and its potential effects on promoter activation of pituitary hormones	Prof Anderson O L Wong, School of Biological Sciences	Preparation of recombinant protein of adiponectin in E. coli and testing of its bioactivity in cell lines with adiponectin receptor expression and its potential effects on promoter activation of pituitary hormones	Prof Anderson O L Wong, School of Biological Sciences
Wang Chuwen	BSc(4)	4	Uniruled Projective varieties	Prof Ngai Ming Mok, Department of Mathematics	--	--

2017-18

Name	Curriculum	Year	Project Title of Project/ Directed Studies Course	Supervisor of Project/ Directed Studies Course	Project Title of Summer Research Internship	Internship Supervisor
Chan Chun Ngai	BSc(4)	4	Holocene climate changes in marginal Asian monsoon regions	Dr Zhonghui Liu, Department of Earth Sciences	Field investigation of lake status in Inner Mongolia	Dr Zhonghui Liu, Department of Earth Sciences
Cheung Man Him	BSc(4)	4	Eliciting the role of Dlc1 β in motor neuron development	Dr Martin Cheung, School of Biomedical Sciences	--	--
Chu Ka Chi	BSc(4)	4	Investigation and Validation on Gene Expression During Development of nucleus Pulposus	Prof Kathryn S E Cheah, School of Biomedical Sciences	Investigation and Validation on Gene Expression During Development of Nucleus Pulposus - Hox Genes and Cell Surface Markers	Prof Kathryn S E Cheah, School of Biomedical Sciences
Ding Anyang	BSc(4)	4	Palaeobiogeographic Analysis of Coelurosaurian Evolution	Dr Michael D Pittman, Department of Earth Sciences	--	--
Ling Yuet Fung	BSc(4)	4	Upper-ocean stratification in the polar North Atlantic and its impact on deep-water ventilation during past interglacials	Dr Benoit Thibodeau, Department of Earth Sciences	Upper-ocean stratification in the polar North Atlantic and its impact on deep-water ventilation during past interglacials	Dr Benoit Thibodeau, Department of Earth Sciences
Man Pui Hei Marcus*#	BSc(4)	4	Modulation of the cGAS-STING pathway by MERS-CoV	Prof Dong-Yan Jin, School of Biomedical Sciences	Modulation of the cGAS-STING pathway by MERS-CoV	Prof Dong-Yan Jin, School of Biomedical Sciences
Ng John Joson Quimpo	BSc(4)	4	Synthesis of fluorescent chemical probes for detection of superoxide ions	Dr Ho Yu Au-Yeung, Department of Chemistry	--	--

Poh Wei Church	BSc(4)	4	Design (modification), Synthesis, Characterization and Photophysical Study of Phosphorescent Organometallic Complexes	Prof Vivian W W Yam, Department of Chemistry	Probing the Influence of the R-Zn-R Bond Angle in Dialkylzinc Complexes on the Lewis Acidity of the Zinc Metal Centre and Implications for Zinc Activities	Prof Ulrich Fekl, Department of Chemical and Physical Sciences, University of Toronto Mississauga
Wang Jen-chieh	BSc(4)	4	Studies on the effects of stereochemistry on (4+3) cycloaddition to synthesize perhydroazulenes diastereoselectively	Prof Pauline Chiu, Department of Chemistry	Studies on the effect of stereochemistry on (4+3) cycloaddition to synthesize perhydroazulenes	Prof Pauline Chiu, Department of Chemistry
Wang Jianian	BSc(4)	4	Discrete-time series analysis on nomadic migration of historical china	Dr Guodong Li, Department of Statistics & Actuarial Science	--	--
Yan Junran	BSc(4)	4	Role of centromere and kinetochore proteins in anoxia-induced suspended animation and recovery in <i>S. cerevisiae</i>	Dr Karen W Y Yuen, School of Biological Sciences	The role of centromere, kinetochore and cell cycle checkpoint proteins in anoxia-induced suspended animation and recovery in <i>S. cerevisiae</i>	Dr Karen W Y Yuen, School of Biological Sciences
Zeng Ji	BSc(4)	3	L2 Estimates of d-bar Operator on Complex Manifolds	Prof Ngaiming Mok, Department of Mathematics	--	--
Zhou Ruiyi	BSc(4)	4	Adapting Scalable Correlated Electronic Structure Theory to Born-Oppenheimer Molecular Dynamics Simulations of Molecular Excited Electronic State	Dr Jun Yang, Department of Chemistry	Adapting Scalable Correlated Electronic Structure Theory to Born-Oppenheimer Molecular Dynamics Simulations	Prof Roberto Car, Department of Chemistry, Princeton Institute for the Science and Technology of Materials

2016-17

Name	Curriculum	Year	Project Title of Project/ Directed Studies Course	Supervisor of Project/ Directed Studies Course	Project Title of Summer Research Internship	Internship Supervisor
Ho Julian Xi Wei	BSc(4)	5	Role of miRNA-1 and -499 in maturation of human embryonic stem cell-derived cardiomyocytes in 3D tissue culture	Dr Wendy W Y Wong & Dr Kwok Ming Yao, School of Biomedical Sciences	--	--
Ni Haozheng	BSc(4)	4	Bootstrap approximation in time series modeling	Dr Guodong Li, Department of Statistics & Actuarial Science	--	--
Rabbani Mashiat*#	BSc(4)	4	Evaluating Nucleoside Analogs as Potential Anti-Cancer Drugs	Prof Alice S T Wong, School of Biological Sciences	Novel mechanisms for targeting Cancer Stem cells using nucleoside analogues and nanotechnology based drug delivery	Prof Peng Ling, Department of Chemical Biology, Centre National de la Recherche Scientifique (CNRS)
Tse Yuen Cheong	BSc(4)	4	Design and Synthesis of Luminescent Metal Complexes	Prof Vivian W W Yam, Department of Chemistry	Design, Synthesis and Photophysical Study of Cyclometallated N ⁴ C ⁴ N Alkynylplatinum(II) Complexes	Prof Vivian W W Yam, Department of Chemistry
Wong Thomas Hin Fung	BSc(4)	4	The Anticancer components from <i>Hedyotis diffusa</i>	Prof Chi Ming Che, Department of Chemistry	--	--
Zhang Zhiqian	BSc(4)	4	CRISPR/Cas9 mediated isolation and genomic cloning of EBV strains from clinical EBV-infected cell samples	Prof Dong-Yan Jin, School of Biomedical Sciences	--	--

2015-16

Name	Curriculum	Year	Project Title of Project/ Directed Studies Course	Supervisor of Project/ Directed Studies Course	Project Title of Summer Research Internship	Internship Supervisor
Fan Ruolin*	BSc(4)	4	Systemic exploration in the regulating network of hypertrophic-chondrocyte-to-osteoblast differentiation	Prof Kathryn S E Cheah, School of Biomedical Sciences	--	--
Guo Fengyi	BSc(4)	4	Impacts of Urbanization on Spotted Dove Communication	Dr Timothy C Bonebrake, School of Biological Sciences & Dr Caroline E Dingle, Department of Earth Sciences	--	--
Hassan Ayon Ahmed	BSc(4)	4	Determining the effect of shear stress on the adhesion of tumor cells in cancer metastasis	Prof Alice S T Wong, School of Biological Sciences	--	--
Husain Abdullah	BSc(4)	4	Screening of G-protein-coupled receptors cDNA library for dimerization with Human Secretin Hormone Receptor	Prof Billy K C Chow, School of Biological Sciences	--	--
Leung Yi Lok Enoch*#	BSc(4)	4	Reconstruction of mass distribution of galaxy cluster(s) via gravitational lensing	Dr Jeremy J L Lim, Department of Physics	Studying the UV luminosity functions of galaxies at high redshifts	Dr Jeremy J L Lim, Department of Physics

Liu Yangdongling	BSc(4)	4	Design, Synthesis and Photophysical Study of Luminescent Metal Complexes	Prof Vivian W W Yam, Department of Chemistry	--	--
Luo Di	BSc(4)	4	New Time Evolution Methods for Matrix Product States of Tensor Network in Quantum Calculation	Prof Guanhua Chen, Department of Chemistry & Dr Shizhong Zhang, Department of Physics	Investigation on Tensor Network Renormalization Group	Prof Garnet Kin-Lic Chan, Department of Chemistry, the Chan Group, Princeton University
Sun Chenyue*	BSc(4)	4	Visible-light mediated synthesis of dihydrofuran derivatives with ruthenium photoredox catalysts	Prof Chi Ming Che, Department of Chemistry	Red-light induced carbon disulfide release from a cobalt complex	Prof Peter C Ford, Department of Chemistry and Biochemistry, University of California, Santa Barbara, USA
Wen Boya*	BSc(4)	4	Fermat-type functional equations and binary form	Prof Tuen Wai Ng, Department of Mathematics	--	--
Wu Teng	BSc(3)	4	Exploring properties of Bayesian & Frequentist hybrid confidence interval	Prof Stephen M S Lee, Department of Statistics & Actuarial Science	--	--
Xiong Lingyun*	BSc(4)	4	Functional Role of hnRNP A1 on FOXM1 alternative splicing	Dr Kin Hang Kok, School of Biomedical Sciences	--	--
Zhang Yongquan	BSc(4)	4	Complex Manifolds	Prof Ngaiming Mok, Department of Mathematics	From Holomorphic Functions to Complex Manifolds	Prof Ngaiming Mok, Department of Mathematics

2014-15

Name	Curriculum	Year	Project Title of Project/ Directed Studies Course	Supervisor of Project/ Directed Studies Course	Project Title of Summer Research Internship	Internship Supervisor
Cai Weixin*	BSc(3)	3	Buffered Autoregressive Model with Exogenous Variables	Dr Philip L H Yu, Department of Statistics & Actuarial Science	Semiparametric Heteroscedastic Modeling for Seasonal Time Series	Dr Prabir Burman, University of California, Davis
Chan Ho Wang*	BSc(3)	3	Anammox Bacteria in Animal System	Dr Jidong Gu, School of Biological Sciences	Molecular Diagnosis of Anammox Bacteria	Dr Jidong Gu, School of Biological Sciences
Chan Hok Fung	BSc(3)	5	Physiologically - relevant doses of UVA exposure alters human skin keratinocytes growth	Dr Jetty C Y Lee, School of Biological Sciences	--	--
Cheng Tsz Fung	BSc(3)	3	Roles of BART microRNAs in Epstein-Barr virus-induced epithelial transformation	Prof Dong-Yan Jin, Department of Biochemistry	Roles of BART microRNAs in Epstein-Barr virus-induced epithelial transformation	Prof Dong-Yan Jin, Department of Biochemistry

2013-14

Name	Curriculum	Year	Project Title of Project/ Directed Studies Course	Supervisor of Project/ Directed Studies Course	Project Title of Summer Research Internship	Internship Supervisor
Li Yu	BSc(3)	2	Complex Differential Geometry	Prof N Mok, Department of Mathematics	--	--
Pan Wenqi	BSc(3)	2	The role of Suppressor of fused in mouse hindbrain development	Dr M H Shum, Department of Biochemistry	The role of Suppressor of fused in the formation of mouse cranial facial skeleton and outflow tract of embryonic heart	Prof C C Hui, University of Toronto
Sun Lianyi	BSc(ActuarSc)(3)	3	Analysis of large data sets: new tools from random matrix theory	Dr J F Yao, Department of Statistics & Actuarial Science	--	--
Wong Mo Dick	BSc(ActuarSc)(3)	2	Markov chains on a continuous state space	Dr J F Yao, Department of Statistics & Actuarial Science	Particle methods with financial applications	Dr P Del Moral, INRIA-Bordeaux-Sud-Ouest Research Centre
Yang Shihao*	BSc(ActuarSc)(3)	2	Valuing contingent options: A discounted density approach	Dr H L Yang, Department of Statistics & Actuarial Science	--	--

2012-13

Name	Curriculum	Year	Project Title of Project/ Directed Studies Course	Supervisor of Project/ Directed Studies Course	Project Title of Summer Research Internship	Internship Supervisor
Chai Wai Yeeng	BSc(3)	2	Do endocrine disrupting chemicals affect cancer?	Dr A S T Wong, School of Biological Sciences	--	--
Choi Chek Hin	BSc(ActuarSc)(3)	3	Introduction to the gerber-shiu function in ruin theory	Dr E K C Cheung, Department of Statistics & Actuarial Science	Optimal portfolio with correlation constraints	Dr C Bernard, University of Waterloo

Chow Tai Cheong*	BSc(3)	2	Pax6 and neurodegeneration of Parkinson's disease	Dr Y Q Song, Department of Biochemistry	Neurodegeneration of parkinson's disease: the role of Pax6 in MPP+-induced apoptosis Parkinson's disease in vitro model	Dr Y Q Song, Department of Biochemistry
Lai Cheuk Hei	BSc(3)	1	Pathogenesis of influenza viruses	Dr Chan Wan Yi, Department of Pathology Dr Chan Chi Wai, School of Public Health	--	--
Lam Chun Ming	BSc(3)	2	Light controllable kinesin	Dr J D Huang, Department of Biochemistry	Meiotic spo11 recombination initiation complex in zea mays analysis using yeast two-hybrid system – cloning of spo11-1A, spo11-1B, and prd2	Dr Arnard Ronceret, University of California, Berkeley
Lau Wing Yan	BSc(3)	2	Molecular characterization of puerarin-protein interactions by proteomics and domain mapping	Dr J Rong, School of Chinese Medicine	Isolation of puerarin binding protein by biotin-streptavidin system	Dr J Rong, School of Chinese Medicine
Li Yu Ting Stephen	BSc(3)	2	The role of cell-cell junction proteins and actin regulatory proteins on germ cell migration and development during spermatogenesis	Prof W W M Lee, School of Biological Sciences	Unraveling the role of actin regulatory proteins on cytoskeleton during spermatogenesis	Dr C Y Cheng, Rockefeller University
Lin Tsen-yuan	BSc(3)	2	Analysing Fermi's data	Prof K S Cheng, Department of Physics	--	--
Ng Ngai Fung*	BSc(3)	2	Riemann surfaces and complex manifolds	Prof N Mok, Department of Mathematics	Studies on kahler manifolds	Prof N Mok, Department of Mathematics
Peng Jun	BSc(3)	1	Calculus of variation	Prof W S Cheung, Department of Mathematics	--	--
Shen Keren	BSc(3)	2	The generalization of Gibbard-Satterthwaite theorem	Dr T W Ng, Department of Mathematics	One candidate voting with a quorum	Dr T W Ng, Department of Mathematics
Song Yifan	BSc(3)	2	Data analysis for Fermi Satellite	Prof K S Cheng, Department of Physics	--	--
Tang Yunfan	BSc(ActuarSc)(3)	2	Option pricing under regime switching models	Prof H L Yang, Department of Statistics & Actuarial Science	--	--
Tse Man Nok	BSc(3)	2	The roles of Lmx1a gene in regulating Irx3/5 genes during inner ear development	Dr M H Sham, Department of Biochemistry	The roles of Lmx1a in regulating Irx3 and Irx5 genes in inner ear development	Dr M H Sham, Department of Biochemistry
Wan Ho Chi	BSc(ActuarSc)(3)	2	Dependence structures in multiple life insurances and annuities	Dr K C Cheung, Department of Statistics & Actuarial Science	A study in optimal reinsurance	Dr K C Cheung, Department of Statistics & Actuarial Science
Wong Kin Lam	BSc(3)	2	Modulation of secretin and secretin receptor gene regulations by NFAT5 in mouse hypothalamic cells	Prof K C Chow, School of Biological Sciences	The modulation of secretin receptor expression by hyperosmotic stress in mouse hypothalamic cells	Prof K C Chow, School of Biological Sciences
Wu Qihang*	BSc(3)	2	Tectonic evolution of the Chinese Altai	Prof M Sun, Department of Earth Sciences	A detailed structural study of Qiongkuer Region, China Altai: multiphase deformation and modification for terrane subdivision proposed	Prof M Sun, Department of Earth Sciences
Zheng Yao*	BSc(ActuarSc)(3)	3	Applications of nonlinear time series models	Prof W K Li, Department of Statistics & Actuarial Science	Applications of nonlinear time series models: fitting threshold models to veilleux's predator series	Prof W K Li, Department of Statistics & Actuarial Science

*Excellence in Poster Presentation

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