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柯 泰 名 助理教授

研究興趣

柯泰名是國立交通大學生物科技學系助理教授，也是國立交通大學生物資訊及系統生物學研究所的合聘助理教授，也是中央研究院生物醫學科學研究所的合聘助研究員。在國立交通大學和中央研究院的工作中，他主要是發展及應用新型基因體定序平台（其中包含多種單細胞定序方式scRNAseq、scATAC和單細胞免疫定序）和新型生物資訊工具，以更加了解特定的基因在傳染病，過敏反應和癌症免疫療法所扮演之重要性，特別是對於免疫受體庫（如HLA、TCR、KIR）的作用和應用。此外，他也同時與其他研究者共同在族群健康和分子流行病學領域進行合作。

柯泰名的長期研究興趣在於轉譯研究，他的目標是將基因體醫學的前沿科技轉譯為實際臨床應用。他在國立台灣大學動物科技學系取得學士學位，醫學院微生物學所取得博士學位。畢業後他在陳垣崇院士的團隊中進行藥物基因體學之研究，同時也在總主持人鄔哲源教授的團隊中，負責及帶領國家基因體醫學中心之藥物基因體中心。在中央研究院時期，為防止威脅生命的皮膚不良藥物反應，他參與了一項大規模的前瞻性研究並為將生物標誌物（HLA-B*58:01）轉譯為臨床實踐做出了貢獻，該研究證明了藥物基因體學方法可為實施藥物基因體學提供堅實的基礎，他也獲得了傑出博士後學者獎助（中央研究院的最佳博士後獎學金）。在2017年，他也在美國芝加哥大學與中村祐輔教授進行精準醫療的新平台和研究。在這幾年中，他參與了發現了川崎病，嚴重的藥物不良反應和中風的新的潛在生物標誌物或遺傳因子。2018年，他獲得了台灣藥理學會所頒發的杜聰明青年學者獎和國立交通大學的BioICT青年講座教授。另外，也在日本橫濱獲得第十二屆國際川崎病研討會青年研究者獎之國際獎項。

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Tai-Ming Ko, Ph.D.

Research Interests

Tai-Ming Ko is an assistant professor of Department of Biological Science and Technology, National Chiao Tung University (NCTU). He is also a Joint Assistant Professor, Institute of Bioinformatics and Systems Biology, National Chiao Tung University (NCTU) and a Joint Appointment Assistant Research Fellow, Institute of Biomedical Sciences (IBMS), Academia Sinica. At NCTU and Academia Sinica, he develops and applies new genomic platforms (including scRNAseq, scATAC, and single-cell immune profiling) and bioinformatics tools to better understand specific genomic factors or disease mediators involved infectious diseases, hypersensitivities, and cancer immunotherapies at the single-cell level, especially for the roles and applications of immune receptor repertoire (i.e. HLA, TCR, KIR). In addition, he also has collaborations in the fields of population health and molecular epidemiology.

Tai-Ming Ko's long-term research interests are in translational research, and he aims at translating the promise of genomic medicine into clinical reality. Ko received his B.S. degree in the Department of Animal Science in National Taiwan University and Ph.D. degree in the College of Medicine in National Taiwan University. Ko joined NCTU after conducting postdoctoral research at the University of Chicago with Professor Yusuke Nakamura and at the IBMS of Academia Sinica with Professor Yuan-Tsong Chen and Jer-Yuarn Wu. At University of Chicago, he applied comprehensive methods for analyzing B-cell receptor repertoire in order to reveal the features from the enormous number of immunoglobulins in Kawasaki disease. At Academia Sinica, he received the Distinguished Postdoctoral Scholarship (the best Postdoctoral Scholarship of Academia Sinica), and he applied multi-omics approaches to characterize the gene profiling for human diseases. In the past few years, he has identified new potential biomarkers or genetic factors for Kawasaki disease, serious adverse drug reactions, and stroke. Moreover, for preventing life-threatening cutaneous adverse drug reactions, he also contributed to translating biomarkers (HLA-B*58:01) into clinical practice through a large prospective study which demonstrated an example that pharmacogenomic approach could provide a strong basis for implementation of precision medicine. In 2018, he received award including Tsung-Ming Tu's Young Investigator Award from The Pharmacological Society in Taiwan, Taiwan, Young Investigator Award of The 12th International Kawasaki Disease Symposium in Japan, and BioICT Junior Chair Professor, National Chiao Tung University in Taiwan.