

BRIEF CURRICULUM VITAE

Name: Margaret Ip

Tel. +852 35051265, email: margaretip@cuhk.edu.hk.

Current position

2009 – present Clinical Professor, Department of Microbiology, Faculty of Medicine, Chinese University of Hong Kong.

Affiliations

2005 – present Honorary Consultant, Department of Microbiology, Prince of Wales Hospital, Hong Kong.

2011- present Researcher, Shenzhen Research Institute (SZRI), Chinese University of Hong Kong, Shenzhen branch, China.

2018 – present Member, Centre for Gut Microbiota Research (CGMR), Faculty of Medicine, Chinese University of Hong Kong.

Academic Qualifications:

BM(Soton) 1988, MSc(LSHTM) 1990, MRCP(UK) 1993, DTM&H(Lond) 1993, MRCPATH(Med Micro) 1999, FRCPA 2000, FHKCPATH 2000, FHKAM 2000, FRCP(Glasg) 2005, FRCPATH(Med Micro) 2007.

Main Research Interests

- Clinical and molecular epidemiology of Group B streptococcus (*Streptococcus agalactiae*), *Streptococcus pneumoniae*, methicillin-resistant *Staphylococcus aureus* (MRSA) and their relations to global public health.
- Surveillance and study of antimicrobial resistance, antibiotic resistance determinants in *Streptococci*, MRSA and multidrug resistant gram negative bacteria.
- Development and assessment of laboratory methods for diagnosis and modalities of treatment.
- Microbial Genomics and Metagenomics inc whole bacterial genome sequencing in pathogenic bacteria of importance in Hong Kong; applications in clinical microbiology and diagnostics, resistome and bacterial interactions in the modulation of gut microbiota.

*Representative publications in recent years (2015-2020):*corresponding author*

Publication Record: 230+ refereed papers and 5 book chapters

PJ Dharmaratne, DN Sapugahawatte, Baiyan Wang, CL Chan, VKM Lau, CBS Lau, KP Fung, DKP Ng, **M Ip*** Contemporary approaches and future perspective of antibacterial photodynamic therapy (aPDT) against methicillin-resistant *Staphylococcus aureus* (MRSA): A systematic review. Eur J Med Chem 2020 (in press).

Lui G, HKW To, N Lee, RWY Chan, T Li, RYK Wong, DSC Hui, **M Ip***. Adherence to treatment guideline improves patient outcomes in a prospective cohort of adults hospitalized for community-acquired pneumonia. Open Forum Infect Dis 2020 (in press)

DN Sapugahawatte, C Li, C Zhu, P Dharmaratne, K-T Wong, N Lo, **M Ip*** Prevalence and characteristics of extended-spectrum B-Lactamases and carbapenemase-producing Enterobacteriaceae from freshwater fish and pork in wet markets of Hong Kong. mSphere 2020 (in press)

KY Kong, TNY Kwong, H Chan, K Wong, SSY Wong, AP Chaparala,, RCY Chan, L Zhang, JJY Sung, J Yu, PM Hawkey, **M Ip**, WKK Wu, SH Wong. Biological characteristics associated with virulence in *Clostridioides difficile* ribotype 002 in Hong Kong. Emerg Microbes & Infect 2020;9(1):631-638.

J Ho, Yun-Kit Yeoh, N Barua, Z Chen, G Lui, SH Wong, X Yang, MC Chan, PKS Chan, PM Hawkey, **M Ip***. Systematic Review of Human Gut Resistome Studies Revealed Variable Definitions and Approaches Gut Microbes 2020; 1-12, Jan 16. doi.org/10.1080/19490976.2019.1700755

Wyres KL, Nguyen TNT, Lam MMC, Judd LM, van Vinh Chau N, Dance DAB, **Ip M**, Karkey A, Ling CL, Miliya T, Newton PN, Lan NPH, Sengduangphachanh A, Turner P, Veeraraghavan B, Vinh PV, Vongsouvath M, Thomson NJR, Baker S, Holt KE. Genomic surveillance for hypervirulence and multi-drug resistance in invasive *Klebsiella pneumoniae* from South and Southeast Asia. *Genome Med.* 2020;12(1):11. Published 2020 Jan 16. doi:10.1186/s13073-019-0706-y

Ho J, **M Ip*** Antibiotic Resistant Community-acquired Bacterial Pneumonia. *Infect Dis Clin North Am.* 2019 Dec;33(4):1087-1103. doi: 10.1016/j.idc.2019.07.002.

Kumar N, Browne HP, Viciani E, Forster SC, Clare S, Harcourt K, Stares MD, Dougan G, Fairley DJ, Roberts P, Pirmohamed M, Clokie MRJ, Jensen MBF, Hargreaves KR, **Ip M**, Wieler LH, Seyboldt C, Norén T, Riley TV, Kuijper EJ, Wren BW, Lawley TD. Adaptation of host transmission cycle during *Clostridium difficile* speciation. *Nat Genet.* 2019 Sep;51(9):1315-1320. doi: 10.1038/s41588-019-0478-8. Epub 2019 Aug 12.

J Ho; SH Wong; VC Doddangoudar; MV Boost; G Tse; **M Ip***. Regional differences in temporal incidence of *Clostridium difficile* infection a systematic review and meta-analysis. *Am J Infect Control.* 2019 pii: S0196-6553(19)30685-6. doi: 10.1016/j.ajic.2019.07.005.

Ying Yang, M-J Luo, H-K Zhou, C Li, A Luk, GP Zhao, K Fung, **M Ip*** The role of two-component system response regulator BceR in antimicrobial resistance, virulence, biofilm formation, and stress response of Group B *Streptococcus*. *Front Microbiol*; 23 Jan 2019.

M Ip*, Ang I, Fung K, Liyanapathirana V, Luo MJ, Lai R. Hypervirulent clone of Group B *Streptococcus*, serotype III/ST283, Hong Kong, 1993-2012. *Emerg Infect Dis* 2016;22: 1800-1803.

Russell NJ, Seale AC, O'Driscoll M, O'Sullivan C, Bianchi-Jassir F, Gonzalez-Guarin J, Lawn JE, Baker CJ, Bartlett L, Cutland C, Gravett MG, Heath PT, Le Doare K, Madhi SA, Rubens CE, Schrag S, Sobanjo-Ter Meulen A, Vekemans J, Saha SK, **Ip M**, GBS Maternal Colonization Investigator Group. Maternal colonization with Group B *Streptococcus* and serotype distribution worldwide: Systematic review and meta-analyses. *Clin Infect Dis.* 2017;65(suppl_2):S100-S111.

Kwatra G, Cunningham MC, Merrall E, Adrian PV, **Ip M**, Klugman KP, Tam WH, Madhi SA. Maternal Colonization with Group B *Streptococcus*: Do rates vary across regions? *Lancet Infectious Diseases*, online May 25, 2016. [http://dx.doi.org/10.1016/S1473-3099\(16\)30055-X](http://dx.doi.org/10.1016/S1473-3099(16)30055-X)

Chan KCC, Subramanian R, Chong P, Nelson EAS, Li AM, **Ip M***. Pneumococcal carriage in young children after introduction of PCV13 in Hong Kong. *Vaccine* 2016, 34:3867-74.

Qin H, Lo NW, Loo JF, Lin X, Yim AK, Tsui SK, Lau TC, **Ip M**, Chan TF. Comparative transcriptomics of multidrug-resistant *Acinetobacter baumannii* in response to antibiotic treatments. *Sci Rep.* 2018;8(1):3515. doi: 10.1038/s41598-018-21841-9

Lin Zheng, ETY Leung, HK Wong, RKW Choy, G Lui, N Lee, KF To, RCY Chan, **M Ip***. Unraveling methylation changes of host macrophages in *Mycobacterium tuberculosis* infection. *Tuberculosis.* 2016;98:139-48.

Yang X, Luo MJ, Yeung ACM, Lewis PJ, Chan PKS, **Ip M***, Ma C*. First-In-Class inhibitor of ribosomal RNA synthesis with antimicrobial activity against *Staphylococcus aureus*. *Biochemistry.* 2017;56(38):5049-5052.

L Zheng, Leung E, Lee N, Lui G, To KF, Chan RCY, **Ip M***. Differential microRNA expression in human macrophages with *Mycobacterium tuberculosis* infection of Beijing/W and multidrug-resistant strain types. *PLoS One* 2015;10(6):e0126018.

Wong CKY, Lin Zheng, **M Ip***. Modulatory effects of a subinhibitory concentration of clindamycin in community-acquired Methicillin-resistant *Staphylococcus aureus* strains of sequence type 30. *Antimicrob Agents Chemother*, 2017; 61:e02254-16.

M Ip*, Ang I, Liyanapathirana V, Ma H, Lai R. Genetic analyses of PBP determinants in multidrug-resistant *Streptococcus pneumoniae* serogroup 19 ST271 clone with high level resistance to third generation cephalosporins. *Antimicrobial Agents Chemother* 2015; 59: 4040-5.

Major Service for International Professional Organizations:

Member of the ad hoc Technical Working Group on the Development of WHO-recommended Group B Streptococcus (GBS) surveillance standards and related guidance documents. Jan 2020 - present

Member of the WHO Scientific Advisory Group (SAG) on the Development of a Value Proposition for Group B Streptococcus (GBS) Vaccine, Oct 2019-20, Cape Town, S. Africa.

Member of Scientific Programme Committee for 29th- 31st European Congress on Clinical Microbiology and Infectious Diseases (ECCMID) in 2019 – 2021, organized by the European Society of Clinical Microbiology and Infectious Diseases, April 2018 – present.

Member of the Scientific Programme Committee, 19th International Symposium on Staphylococci and Staphylococcal Infections, Perth, Australia on 23-26 Aug, 2020, organized by the Australian Society for Antimicrobials.

Member of the WHO Consultation on Group B Streptococcus (GBS) Vaccine Development, 2017

Member of the Oxford Asia Antimicrobial Resistance Network, 2017

Member of International organizing committee, 1st International symposium on Streptococcus agalactiae disease (ISSAD), Cape Town, S. Africa, 2018

Major Service for Hong Kong Community:

Member of the Hong Kong Expert Committee on Antimicrobial Resistance, 2019 – present

Assessor, Enterprise Support Scheme (ESS) Assessment Panel, Innovation Technology Fund, Hong Kong SAR, Jul 2019 - Jun 2021.

Member of Scientific Committee on Enteric Infections and Foodborne Diseases, Centre for Health Protection, Hong Kong SAR Government, 2019 – present.

Member of Scientific Committee on Infection Control, Centre for Health Protection, Hong Kong SAR Government, 2013 – present.

Member of Grant Review Board of the Health and Medical Research Fund, Food and Health Bureau, Hong Kong SAR Government, 2011 – present.

Member of Health Protection Programme on Antimicrobial Resistance, Centre for Health Protection, Hong Kong SAR Government, 2010 – present.

Member of Central Committee on Infectious Disease, Hospital Authority, Hong Kong, 2003 – present. Completion of Assessor Training Course on Laboratory Accreditation, with written examination on ISO15189. 16-17 Oct 2008. Assessor of Laboratories of HOKLAS, Hong Kong.

Others

Supervisor of 15 fulltime MPhil and PhD graduates, 9 part-time MSc / MPH graduates and ongoing 5 fulltime PhD students.

Invited speaker/ Chair to International and local conferences

Current editorial responsibilities

Associate Editor to Frontiers in Medicine: Surveillance and Public Health

Associate Editor to Annals of Clinical Microbiology and Antimicrobials

Review Editor to BMC Infectious Diseases

Review Editor in Frontiers in Microbiology: Antimicrobials, Resistance and Chemotherapy.

Co-Editor to Frontiers Microbiology Research Topic ebook on 'Global Challenge posed by multiresistant international clones of bacterial pathogens' Jul 2017.

Reviewer of manuscripts from Lancet ID, Nature, BMJ, Thorax, Emerg Infect Dis, etc.