# **CHOW Wang Ngai Franklin**

# (Research Assistant Professor)

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## **Research Interest**

Infectious diseases
 Extracellular vesicles
 Host-pathogen interactions
 Small RNA
 Environmental Microbiology
 One Health

## **Education**

2010-2013 PhD (Molecular Microbiology)

Department of Microbiology, The University of Hong Kong (Supervisors: Prof. Susanna KP Lau and Prof. Kwok-Yung Yuen)

2005-2007 MPhil (Reproductive Medicine)

Department of Obstetrics and Gynaecology, The University of Hong Kong

(Supervisors: Prof. William SB Yeung and Dr. Calvin KF Lee)

2002-2005 BSc (Hons) in Biochemistry, The University of Hong Kong

## **Working Experience**

07/2021-Present	Research Assistant Professor, Department of Health Technology and Informatics, The Hong Kong Polytechnic University
09/2021-Present	Honorary Research Associate, Department of Microbiology, The University of Hong Kong
08/2018-07/2021	Postdoctoral Fellow, Department of Microbiology, The University of Hong Kong (Lab: Prof. Susanna KP Lau)
03/2015-08/2018	Postdoctoral Research Associate, Institute of Immunology and Infection Research, The University of Edinburgh
	(Lab: Prof. Amy Buck)
09/2017-08/2018	Tutors/demonstrators/markers, School of Biological Sciences, The University of Edinburgh
08/2015	Visiting Scientist, Department of Molecular Genetics, University of Toronto
05/2013-02/2015	Senior Research Assistant, Department of Microbiology, The University of Hong Kong

#### **Patents**

- 1. US 16/830,524 Fungal Identification by Pattern Recognition
- 2. UK P215141.GB.01 Parasitic nematode vaccine (non-inventive contributor)

## **Intellectual Property**

- 1. ssGeneFinder: a webserver for automated pangenomic analysis in target selection for PCR detection and identification of bacteria
- 2. 中华人民共和国国家版权局 2022SR0238974宏基因测序数据耐药基因识别软件V1.0.0

## Service to professional & scientific bodies, consultancy, membership of professional & learned societies:

#### • Editorship

- Associate editor of Virology Journal (IF 2021: 5.916; Ranking: Virology 13/37 or Top 35.2%)
- Junior editorial board of Extracellular Vesicles and Circulating Nucleic Acids (EVCNA)
- Associate Editor of Biomedical Informatics
- Section Topic Editor Board for "Molecular Pathology, Diagnostics and Therapeutics" of International Journal of Molecular Sciences (IJMS) (IF 2021: 6.208; Ranking: Biochemistry & Molecular Biology 69/297 or Top 23.3%)
- o Guest editor of IJMS Special Issue "Genomics: Infectious Disease and Host-Pathogen Interaction 2.0" & "Extracellular Vesicles in Microbes, Pathogens and Infectious Diseases"
- Special Topic editor of Frontiers in cellular and infection microbiology (IF 2021: 6.073; Ranking: Microbiology 33/137 or Top 25%) "Current Advances in *Talaromyces marneffei* Infections"

## • European Cooperation in Science & Technology

o Working group member of COST action CA20110 RNA communication across kingdoms: new mechanisms and strategies in pathogen control (exRNA-PATH) (Chair: Prof. Amy Buck)

## • UK Royal Society of Biology

- o Member (MRSB) and Chartered Biologist (CBiol)
- o Vice-chairman of the Royal Society of Biology Hong Kong Branch (2014-2015)

## • Ad-hoc journal reviewer

 Journal of Extracellular Vesicles; Journal of Clinical Microbiology; Emerging Microbes and Infections; Diagnostic Microbiology and Infectious Disease; Virology Journal; Microbiology Spectrum; Microorganisms; Viruses; Molecules; PLoS One; PLoS Neglected Tropical Diseases; International Journal of Molecular Sciences; Frontiers Cellular and Infection Microbiology

## • Knowledge exchange activities:

- HKU 2020/21 KE Impact Project Funding: KE-IP-2020/21-54: Coronavirus Journey at HKU, IV: Rapid Diagnosis and Mass On-site Screening of COVID-19 (\$90,000) – Speaker & team member
- HKU 2018/19 Interdisciplinary KE Project Fund: KE-ID-2018/19-22: Antimicrobials and Infection Control: Emergence of Drug Resistance; Novel Pathogens (HK\$175,000) – Team member

## Invited Speaker

- 2020 Oct 5 Guest lecturer
   Topic: "Medical Virology and SARS-CoV-2 Testing, COVID-19-LAMP demonstration"
   The Technological and Higher Education Institute of Hong Kong (THEi), Hong Kong, China
- 2022 Dec 4 Invited speaker
   2022 International Conference on Biomedicine and Bioinformatics (ICBB2022)
   (Hybrid conference)
   Topic: Host-pathogen interactions, infectious diseases and the One-Health relationships
   Chongren Building, Hunan University of Technology, Zhuzhou, China

#### • Award:

2021/2022 PolyU HTI Departmental Publication Award (Publishing Paper in High Impact Journal) (1st prize)

# Research supervision

- PhD candidate
  - o 2023 Mr. HAU Pak Ting, Patrick (3+1 competitive scheme)
- Master of Science in Medical Laboratory Science
  - o Project supervision since 2021
    - Number of students: 4
- Bachelor of Science (Honours) in Medical Laboratory Science
  - o Final year project supervision since 2021
    - Number of students: 5
- Summer Research Studentship of Faculty of Health and Social Sciences
  - Mentor
    - 2021 2022
    - 2022 2023
- Incoming exchange FYP:
  - 2022 IMC University of Applied Sciences KREMS, Austria

## **Funded external grants**

# 2023 Drainage Services Department (DSD) Ref: P0048014

Role: Co-Principal Investigator

Project title: Development of Passive Sampling of SARS-CoV-2 for Sewage Surveillance

DEMP/2023/22

Amount funded: HK\$680,000

## 2023 Water Supplies Department (WSD) Ref: P0048163

Role: Principal Investigator

Project title: Provision of Consultancy Services for Identification of 2-Methylisoborneol

(MIB) Producing Microorganisms in Impounding Reservoirs in Hong Kong

WS/F30/2302

Amount funded: HK\$1,350,000

## 2023 Health and Medical Research Fund (HMRF) Ref: 22210432

Role: Principal Applicant

Project title: Circulating small RNA-based diagnostics for differentiation of Candida

species in candidemia.

Amount funded: HK\$1,200,000

## 2022 General Research Fund (GRF) Ref: 15100322

Role: Principal Investigator

Project title: Mechanistic study of the modulation of antifungal susceptibility by Candida

auris extracellular vesicles.

Amount funded: HK\$1,180,218

## Food and Environmental Hygiene Department (FEHD)

Role: Co-Principal Investigator

Project title: Provision of Services for Routine Surveillance of Antimicrobial Resistant

Microorganisms in Food in Hong Kong FEHQ 1023/21

Amount funded: HK\$4,477,000

## Health and Medical Research Fund (HMRF) Ref: 20190612

Role: Principal Applicant

Project title: Novel small RNA-based diagnostics and therapeutics for SARS-CoV-2.

Amount funded: HK\$1,149,160

# HMRF Commissioned Research Fund on the Novel Coronavirus Disease (COVID-19) Ref: COVID190122

Role: Co-Applicant

Project title: SARS-CoV-2 infection dynamics in bat and human cells: tissue tropism and

differential host response for elucidating of evolutionary pathway and

exploration of potential treatment targets.

Amount funded: HK\$2,998,853

# 2020 General Research Fund (GRF)

Role: Co-Investigator

Project title: Elucidating the molecular pathogenesis and mechanism of hypervirulence in

virus infected Talaromyces marneffei.

Amount funded: HK\$1,195,482

## **Publications: (45 total publications)**

\*source of number of citations of each publication from Scopus

Sources	<b>Total number of Citations</b>	H-index
Web of Science	1654	20
Scopus Author	1736	21
Google Scholar	2215	23

Lao HY, Wong LL, Hui Y, Ng TT, Chan CT, Lo HW, Yau MC, Leung EC, Wong RC, Ho AY, Yip KT, Lam JY, Chow VC, Luk KS, Que TL, <u>Chow FWN</u>, Siu GK. The clinical utility of Nanopore 16S rRNA gene sequencing for direct bacterial identification in normally sterile body fluids. Front Microbiol. 2024 Jan 9;14:1324494.

Number of citations: n/a

Ranking: 38/135 Microbiology or Top 28.1%

IF 2022: 5.2

2. Chan TTY\*, Chow FWN\*, Fung J\*, Cheng FKK, Lo GCS, Tsang CC, Luk HKH, Wong ACP, He Z, Aw-Yong KL, Liu XY, Yuen KY, Woo PCY. A sensitive and simple RT-LAMP assay for sarbecoviruses screening in bats. Microbiology Spectrum. 2023 Dec 12;11(6):e0259123.

Number of citations: n/a

Ranking: Microbiology 62/135 or Top 46%

IF 2022: 3.7

3. Chow FWN, Morphew RM. Extracellular Vesicles in Microbes, Pathogens, and Infectious Diseases. Int J Mol Sci. 2023 Jun 26;24(13):10686.

Number of citations: n/a

Ranking: Biochemistry & Molecular Biology 66/285 or Top 23.2%

IF 2022: 5.6

4. Ayesha A, <u>Chow FWN</u>, Leung PH. Role of Legionella pneumophila outer membrane vesicles in host-pathogen interaction. Front Microbiol. 2023 Sep 25;14:1270123.

Number of citations: n/a

Ranking: 38/135 Microbiology or Top 28.1%

IF 2022: 5.2

5. Shenkutie Shenkutie AM, Gebrelibanos D, Yao M, Bedada Hundie G, <u>Chow FWN</u>, Leung PHM. Impairment of novel non-coding small RNA00203 inhibits biofilm formation and reduces biofilm-specific antibiotic resistance in Acinetobacter baumannii. **Int J Antimicrob Agents**. 2023 Sep;62(3):106889.

Number of citations: n/a

Ranking: Pharmacology & Pharmacy 11/278 or Top 4.0%

IF 2022: 10.8

 Kwok CTK\*, <u>Chow FWN</u>\*(equally contributed), Cheung KYC\*, Zhang XY, Mok DKW, Kwan YW, Chan GHH, Leung GPH, Cheung KW, Lee SMY; Wang N, Li JJ, Seto SW. *Medulla Tetrapanacis* Water Extract Alleviates Inflammation and Infection by Regulating Macrophage Polarization Through MAPK Signaling Pathway. **Inflammopharmacology.** 2023

Number of citations: n/a

Ranking: Toxicology 11/94 or Top 11.7%

IF 2022: 5.8

7. Wu WG, Shum MHH, Lu KK, Lee LK, Leung JSL, Lao HY, Wong ITF, Lee AWT, Hau PT, Chan CTM, Wong HFT, Fung SKY, Wong SCY, Ng ICF, Ng TTL, Chow N, Ho AYM, Hung MF, <u>Chow FWN</u>, Wong MML, To WK, Lam TTY, Luk KS, Siu GKH. Probable Airborne Transmission of *Burkholderia pseudomallei* Causing an Urban Outbreak of Melioidosis during Typhoon Season in Hong Kong, China. **Emerg Microbes Infect**. 2023

Number of citations: n/a

Ranking: Microbiology 9/135 or Top 6.7%

IF 2022: 13.2

8. <u>Chow FWN</u>. Genomics: Infectious Disease and Host-Pathogen Interaction. **Int J Mol Sci**. 2023 Jan 16:24(2):1748.

Number of citations: n/a

Ranking: Biochemistry & Molecular Biology 66/285 or Top 23.2%

IF 2022: 5.6

9. Wang M, Liu H, Ren J, Huang Y, Deng Y, Liu Y, Chen Z, <u>Chow FWN</u>, Leung PHM, Li S. Enzyme-Assisted Nucleic Acid Amplification in Molecular Diagnosis: A Review. **Biosensors**. 2023 Jan;13(2):160.

Number of citations: n/a

Ranking: Chemistry, Analytical 8/64 or Top 16.3%

IF 2022: 5.4

10. Yang J, Liu H, Pan W, Song M, Lu Y, <u>Chow FWN</u>, Hang-Mei Leung P, Deng Y, Hori M, He N, Li S. Recent Advances of Human Leukocyte Antigen (HLA) Typing Technology Based on High-Throughput Sequencing. **J Biomed Nanotechnol**. 2022 Mar 1;18(3):617-639.

Number of citations: n/a

Ranking: Nanoscience and Nanotechnology 73/108 or Top 67.6%

IF 2022: 2.9

11. Chan W\*, <u>Chow FWN</u>\* (equally contributed), Tsang CC\*, Liu X, Yao W, Chan TT, Siu GK, Ho AY, Luk KS, Lau SK, Woo PC. Induction of amphotericin B resistance in susceptible *Candida auris* by extracellular vesicles. **Emerg Microbes Infect**. 2022 Dec;11(1):1900-1909.

Number of citations: 5

Ranking: Microbiology 9/135 or Top 6.7%

IF 2022: 13.2

12. Shenkutie AM, Zhang J, Yao M, Asrat D, <u>Chow FWN</u>, Leung PHM. Effects of Sub-Minimum Inhibitory Concentrations of Imipenem and Colistin on Expression of Biofilm-Specific Antibiotic Resistance and Virulence Genes in *Acinetobacter baumannii* Sequence Type 1894. **Int J Mol Sci.** 2022 Oct 21;23(20):12705.

Number of citations: 7

Ranking: Biochemistry & Molecular Biology 66/285 or Top 23.2%

IF 2022: 5.6

13. Chen Z, Zhao K, Tan B, Tong Z, He Z, Luo X, Cai L, Wang H, Leung PHM, <u>Chow FWN</u>, Chen H, Deng Y. Development of a high specificity typing method for the detection of herpes simplex virus. Front Bioeng Biotechnol. 2022 Aug 17;10: 955713.

Number of citations: n/a

Ranking: Multidisciplinary Sciences 16/73 or Top 21.9%

IF 2022: 5.7

 Liu T, Deng Y, Li S, <u>Chow FWN</u>, Liu M, He N. Monitoring and detection of antibiotic residues in animal derived foods: Solutions using aptamers. <u>Trends in Food Science & Technology</u>.2022 July; 125:200-235

Number of citations: 4

Ranking: Food Science & Technology 2/142 or Top 1.4%

IF 2022: 15.3

15. Lau SKP, He Z, Tsang CC, Chan TTY, Luk HKH, Chan E, Li KSM, Fung J, <u>Chow FWN</u>, Tam AR, Chung TWH, Wong SCY, Que TL, Fung KSC, Lung DC, Wu AKL, Hung IFN, Teng JLL, Wernery U, Hui SW, Martelli P, Woo PCY. A Sensitive and Specific Competitive Enzyme-Linked Immunosorbent Assay for Serodiagnosis of COVID-19 in Animals. **Microorganisms**. 2021 May 10;9(5):1019.

Number of citations: 3

Ranking: Microbiology 47/135 or Top 34.8%

IF 2022: 4.5

16. <u>Chow FWN</u>, Chan TTY, Tam AR, Zhao S, Yao W, Fung J, Cheng FK, Lo GC, Chu S, Aw-Yong KL, Tang JY, Tsang CC, Luk HK, Wong AC, Li KS, Tam EWT, Chung TW, Wong SCY, Que TL, Fung KS, Lung DC, Wu AK, Hung IF, Woo PC, Lau SK. A Rapid, Simple, Inexpensive, and Mobile Colorimetric Assay COVID-19-LAMP for Mass On-Site Screening of COVID-19. **Int J Mol Sci**. 2020 Jul 29:21(15):5380.

**Number of citations: 72** 

Ranking: Biochemistry & Molecular Biology 66/285 or Top 23.2%

IF 2022: 5.6

17. White R, Kumar S, <u>Chow FWN</u>, Robertson E, Hayes KS, Grencis RK, Duque-Correa MA, Buck AH. Extracellular vesicles from *Heligmosomoides bakeri* and *Trichuris muris* contain distinct microRNA families and small RNAs that could underpin different functions in the host. **Int J Parasitol**. 2020 Aug;50(9):719-729.

Number of citations: 12

Ranking: Parasitology 5/37 or Top 13.5%

IF 2022: 4.0

18. Bermúdez-Barrientos JR, Ramírez-Sánchez O, <u>Chow FWN</u>, Buck AH, Abreu-Goodger C. Disentangling sRNA-Seq data to study RNA communication between species. **Nucleic Acids Res**. 2020 Feb 28;48(4):e21.

Number of citations: 7

Ranking: Biochemistry & Molecular Biology 10/285 or Top 3.5%

IF 2022: 14.9

19. Quintana JF, Kumar S, Ivens A, <u>Chow FWN</u>, Hoy AM, Fulton A, Dickinson P, Martin C, Taylor M, Babayan SA, Buck AH. Comparative analysis of small RNAs released by the filarial nematode Litomosoides sigmodontis in vitro and in vivo. **PLoS Negl Trop Dis**. 2019 Nov 26;13(11):e0007811.

Number of citations: 17

Ranking: Tropical Medicine 2/24 or Top 8.4%

IF 2022: 3.8

20. Lau SKP, Luk HKH, Wong ACP, Fan RYY, Lam CSF, Li KSM, Ahmed SS, <u>Chow FWN</u>, Cai JP, Zhu X, Chan JFW, Lau TCK, Cao K, Li M, Woo PCY, Yuen KY. Identification of a Novel Betacoronavirus Merbecovirus in Amur Hedgehogs from China. *Viruses*. 2019 Oct 24;11(11):980.

Number of citations: 30

Ranking: Virology 15/366 or Top 41.7%

IF 2022: 4.7

21. <u>Chow FWN</u>, Koutsovoulos G, Ovando-Vázquez C, Neophytou K, Bermúdez-Barrientos J, Laetsch DR, Robertson E, Kumar S, Claycomb J, Blaxter M, Abreu-Goodger C, Buck A. Secretion of an Argonaute protein by a parasitic nematode and the evolution of its siRNA guides. **Nucleic Acids Res**. 2019 Apr 23;47(7):3594-3606.

Number of citations: 49

Ranking: Biochemistry & Molecular Biology 10/285 or Top 3.5%

IF 2022: 14.9

22. Lau SKP, Lo GCS, <u>Chow FWN</u>, Fan RYY, Cai JJ, Yuen KY, Woo PCY. Novel partitivirus enhances virulence of and causes aberrant gene expression in *Talaromyces marneffei*. mBio. 2018 Jun 12;9(3).

Number of citations: 50

Ranking: Microbiology 24/135 or Top 17.8%

IF 2022: 6.4

23. Driedonks TAP, van der Grein SG, Ariyurek Y, Buermans HPJ, Jekel H, <u>Chow FWN</u>, Wauben MHM, Buck AH, 't Hoen PAC, Nolte-'t Hoen ENM. Immune stimuli shape the small non-coding transcriptome of extracellular vesicles released by dendritic cells. Cell Mol Life Sci. 2018 May 28.

**Number of citations: 40** 

Ranking: Biochemistry & Molecular Biology 36/285 or Top 12.6%

IF 2022: 8.0

Hearn J, <u>Chow FWN</u>, Barton H, Tung M, Wilson P, Blaxter M, Buck A, Little TJ. *Daphnia magna* microRNAs respond to nutritional stress and ageing but are not transgenerational. **Mol Ecol**. 2018 Feb 8

Number of citations: 16

Ranking: Evolutionary Biology 8/52 or Top 15.4%

IF 2022: 4.9

25. Mateescu B, Kowal EJK, van Balkom BWM, Bartel S, Bhattacharyya SN, Buzás EI, Buck AH, de Candia P, <u>Chow FWN</u>, Das S, Driedonks TA, Fernández-Messina L, Haderk F, Hill AF, Jones JC, Van Keuren-Jensen KR, Lai CP, Lässer C, Liegro ID, Lunavat TR, Lorenowicz MJ, Maas SL, Mäger I, Mittelbrunn M, Momma S, Mukherjee K, Nawaz M, Pegtel DM, Pfaffl MW, Schiffelers RM, Tahara H, Théry C, Tosar JP, Wauben MH, Witwer KW, Nolte-'t Hoen EN. Obstacles and opportunities in the functional analysis of extracellular vesicle RNA – an ISEV position paper. J Extracell Vesicles. 2017; 6(1): 1286095.

Number of citations: 494

Ranking: Cell Biology 15/191 or Top 7.9%

IF 2022: 16

26. Woo PC, Lau SK, Tsang CC, Lau CC, Wong PC, <u>Chow FWN</u>, Fong JY, Yuen KY. Coronavirus HKU15 in respiratory tract of pigs and first discovery of coronavirus quasispecies in 5'-untranslated region. **Emerg Microbes Infect**. 2017 Jun 21;6(6):e53.

Number of citations: 27

Ranking: Microbiology 9/135 or Top 6.7%

IF 2022: 13.2

27. Woo PCY, Lau SKP, Tsoi HW, Patteril NG, Yeung HC, Joseph S, Wong EYM, Muhammed R, <u>Chow FWN</u>, Wernery U, Yuen KY. Two novel dromedary camel bocaparvoviruses from dromedaries in the Middle East with unique genomic features. **J Gen Virol**. 2017 Jun;98(6):1349-1359.

**Number of citations: 13** 

Ranking: Biotechnology & Applied Microbiology 62/158 or Top 39.2%

IF 2022: 3.8

28. Lau SK, Lo GC, Lam CS, <u>Chow WN</u>, Ngan AH, Wu AK, Tsang DN, Tse CW, Que TL, Tang BS, Woo PC. In Vitro Activity of Posaconazole against *Talaromyces marneffei* by Broth Microdilution and Etest Methods and Comparison to Itraconazole, Voriconazole, and Anidulafungin. **Antimicrob Agents** Chemother. 2017 Feb 23;61(3).

Number of citations: 19

Ranking: Pharmacology & Pharmacy 61/278 or Top 21.9%

IF 2022: 4.9

29. Lau SK, <u>Chow WN</u>, Foo CH, Curreem SO, Lo GC, Teng JL, Chen JH, Ng RH, Wu AK, Cheung IY, Chau SK, Lung DC, Lee RA, Tse CW, Fung KS, Que TL, Woo PC. *Elizabethkingia anophelis* bacteremia is associated with clinically significant infections and high mortality. **Sci Rep**. 2016 May 17; 6:26045.

Number of citations: 117

Ranking: Sciences 22/73 or Top 30.1%

IF 2022: 4.6

30. Lau SK, Lam CS, Ngan AH, <u>Chow WN</u>, Wu AK, Tsang DN, Tse CW, Que TL, Tang BS, Woo PC. Matrix-assisted laser desorption ionization time-of-flight mass spectrometry for rapid identification of mold and yeast cultures of *Penicillium marneffei*. **BMC Microbiol**. 2016 Mar 10; 16:36.

Number of citations: 28

Ranking: Microbiology 53/135 or Top 39.3%

IF 2022: 4.2

31. Lau SK, Yip CC, Zhao PS, <u>Chow WN</u>, To KK, Wu AK, Yuen KY, Woo PC. Enterovirus D68 infections associated with severe respiratory illness in elderly patients and emergence of a novel clade in Hong Kong. Sci Rep. 2016 Apr 28; 6:25147.

**Number of citations: 34** 

Ranking: Sciences 22/73 or Top 30.1%

32. Lau SK, Lee KC, Lo GC, Ding VS, <u>Chow WN</u>, Ke TY, Curreem SO, To KK, Ho DT, Sridhar S, Wong SC, Chan JF, Hung IF, Sze KH, Lam CW, Yuen KY, Woo PC. Metabolomic profiling of plasma from melioidosis patients using UHPLC-QTOF MS reveals novel biomarkers for diagnosis. **Int J Mol Sci**. 2016 Feb 27;17(3):307.

Number of citations: 11

Ranking: Biochemistry & Molecular Biology 66/285 or Top 23.2%

IF 2022: 5.6

33. Lau SK, Lee KC, Curreem SO, <u>Chow WN</u>, To KK, Hung IF, Ho DT, Sridhar S, Li IW, Ding VS, Koo EW, Wong CF, Tam S, Lam CW, Yuen KY, Woo PC. Metabolomic profiling of plasma from patients with tuberculosis by use of untargeted mass spectrometry reveals novel biomarkers for diagnosis. **J Clin Microbiol**. 2015 Dec;53(12):3750-9.

**Number of citations: 36** 

Ranking: Microbiology 17/135 or Top 12.6%

IF 2022: 9.4

34. Lau SKP, Lam CW, Curreem SOT, Lee KC, <u>Chow WN</u>, Lau CCY, Sridhar S, Wong SCY, Martelli P, Hui SW, Yuen KY, Woo PCY. Metabolomic profiling of *Burkholderia pseudomallei* using UHPLC-ESI-Q-TOF-MS reveals specific biomarkers including 4-methyl-5-thiazoleethanol and unique thiamine degradation pathway. **Cell & Bioscience**. 2015 Jun 2; 5:26.

**Number of citations: 13** 

Ranking: Biochemistry & Molecular Biology 42/285 or Top 14.7%

IF 2022: 7.5

35. Lau SKP, Lam CW, Curreem SOT, Lee KC, Lau CCY, <u>Chow WN</u>, Ngan AHY, To KKW, Chan JFW, Hung IFN, Yam WC, Yuen KY, Woo PCY. Identification of specific metabolites in culture supernatant of *Mycobacterium tuberculosis* using metabolomics approach: an exploration of potential biomarkers for diagnosis. **Emerg Microbes Infect.** 2015 4, e6

**Number of citations: 48** 

Ranking: Microbiology 9/135 or Top 6.7%

IF 2022: 13.2

36. Lau SK, Feng Y, Chen H, Luk HK, Yang WH, Li KS, Zhang YZ, Huang Y, Song ZZ, <u>Chow WN</u>, Fan RY, Ahmed SS, Yeung HC, Lam CS, Cai JP, Wong SS, Chan JF, Yuen KY, Zhang HL, Woo PC. Severe acute respiratory syndrome (SARS) coronavirus ORF8 protein is acquired from SARS-related coronavirus from greater horseshoe bats through recombination. J Virol. 2015 Oct;89(20):10532-47.

**Number of citations: 132** 

Ranking: Virology 12/3 or Top 33.3%

IF 2022: 5.4

37. Lau SKP, Sridhar S, Ho CC, <u>Chow WN</u>, Lee KC, Lam CW, Yuen KY, Woo PC. Laboratory diagnosis of melioidosis: Past, present and future. **Exp Biol Med**. 2015 Jun;240(6):742-51.

**Number of citations: 74** 

Ranking: Medicine, Research & Experimental 84/1366 or Top 61.8%

IF 2022: 3.2

38. Yang E, <u>Chow WN</u>, Wang G, Woo, PCY, Lau SKP, Yuen KY, Lin X, Cai JJ. Signature gene expression reveals novel clues on the mechanism of dimorphic transition in *Penicillium marneffei*. **PLoS Genetics**. 2014 Oct 16;10(10): e1004662.

Number of citations: 26

Ranking: Genetics & Heredity 36/171 or Top 21.1%

IF 2022: 4.5

39. Yang E, Wang G, Woo PC, Lau SKP, Chong KTK, Tse H, Kao RYT, Chan CM, <u>Chow WN</u>, Yuen KY, Cai JJ. Unraveling the molecular basis of temperature-dependent genetic regulation in *Penicillium marneffei*. Eukaryotic Cell. 2013 Sep;12(9):1214-24. Journal renamed to mSphere in 2017 Number of citations: 18

Ranking: Eukaryotic Cell 2016: Microbiology 48/125 or Top 39%; mSphere 2022: Microbiology

44/135 or Top 32.6%

IF: Eukaryotic Cell 2016: 2.992; mSphere 2022: 4.8

40. Lau SKP\*, <u>Chow WN</u>\* (equally contributed), Wong AYP, Yeung JMY, Bao J, Zhang N, Lok S, Woo PC, Yuen KY. Identification of microRNA-like RNAs in mycelial and yeast phases of the thermal dimorphic fungus *Penicillium marneffei*. PLoS Negl Trop Dis. 2013 Aug 22;7(8):e2398.

Number of citations: 81

Ranking: Tropical Medicine 2/24 or Top 8.4%

IF 2022: 3.8

41. Woo PC, Lau SKP, Liu B, Cai JJ, Chong KT, Tse H, Kao RY, Chan CM, <u>Chow WN</u>, Yuen KY. Draft genome sequence of *Penicillium marneffei* strain PM1. **Eukaryotic Cell**. 2011 Dec;10(12):1740-1. **Journal renamed to mSphere in 2017** 

Number of citations: 31

Ranking: Eukaryotic Cell 2016: Microbiology 48/125 or Top 39%; mSphere 2022: Microbiology 44/135 or Top 32.6%

IF: Eukaryotic Cell 2016: 2.992; mSphere 2022: 4.8

42. <u>Chow WN</u>, Lee YL, Wong PC, Chung MK, Lee KF, Yeung WS. Complement 3 deficiency impairs early pregnancy in mice. **Mol Reprod Dev**. 2009 Jul;76(7):647-55.

**Number of citations: 35** 

Ranking: Developmental Biology 21/39 or Top 53.8%

IF 2022: 2.5

43. Tse PK, Lee YL, <u>Chow WN</u>, Luk JMC, Lee KF, Yeung WSB. Preimplantation embryos co-operate with oviductal cells to produce embryotrophic iC3b. **Endocrinology**, 2008 Mar;149(3):1268-76.

Number of citations: 41

Ranking: Endocrinology & Metabolism 39/145 or Top 26.9%

IF 2022: 4.9

44. Lee YL, Chan YL, <u>Chow WN</u>, Ng EH, Lee KF, Yeung WSB, Ho PC. EG-VEGF stimulates proliferation and tube formation in human uterine microvascular endothelial cell through the MAPK but not the Akt pathway. **Fertility and Sterility**. 2009 May;91(5 Suppl):2163-71.

Number of citations: 11

Ranking: Obstetrics and Gynecology 6/85 Top 7.76%

IF 2022: 6.7

45. Lee YL, Cheong AWY, <u>Chow WN</u>, Lee KF, Yeung WSB. Regulation of Complement 3 expression in human and mouse oviducts. **Mol Reprod Dev**, 2009 Mar;76(3):301-8.

Number of citations: 21

Ranking: Developmental Biology 21/39 or Top 53.8%

IF 2022: 2.5

## **Conference papers/Abstracts:**

- 1. Hau PPT, Kwok CTK, Yu RCW, Wong Fiona, <u>Chow FWN\* (co-corresponding)</u>, Seto SW\*. *Lantana camara L.* water extract modulates phagocytotic and bactericidal activities of macrophages against bacterial pathogens. The 19th International Postgraduates Symposium on Chinese Medicine (IPSCM 2023); Hong Kong Exhibition Centre, Wan Chai, Hong Kong; 2023, Aug 18.
- Hau PPT, Kwok CTK, Yu RCW, Wong Fiona, Seto SW\*, Chow FWN\*. Lantana camara L. water extract modulates phagocytotic and bactericidal activities of macrophages against bacterial pathogens. 10<sup>th</sup> Congress of Federation of European Microbiologists Societies (FEMS2023). CCH Congress Center Hamburg, Germany, 9 -13 July 2023.
- Kwok CTK, Cheung KYC, Wong CC, <u>Chow FWN\* (co-corresponding)</u>, Seto SW\*. Macrophages-derived sclerostin suppressed myogenesis of C2C12 cells. 19<sup>th</sup> World Congress of Basic & Clinical Pharmacology 2023 (WCP2023). Scottish Event Campus, Glasgow, Scotland, UK. 2-7 July 2023.
- 4. Hau PPT, Kwok CTK, Yu RCW, Wong F, <u>Chow FWN</u>\* (co-corresponding) and Sai-Wang Seto\*. Lantana camara L. water extract modulates phagocytosis and nitric oxide production of macrophages against bacterial and fungal pathogens. Botanical Symposium Exploring Innovative Approaches in Chinese Medicines: from Bench to Bedside, 2022, Senate Room (M1603), PolyU, 1 December 2022
- Kwok CTK, Zhang XY, Ngan CY, Cheung KYC, Leung GPH, Kwan YW, Chow FWN Chow FWN\*
   (co-corresponding, Seto SW\*. Anti-inflammatory and anti-bacterial properties of water extract of Medulla Tetrapanacis in RAW 267.4 cell. Botanical Symposium Exploring Innovative Approaches in Chinese Medicines: from Bench to Bedside, 2022, Senate Room (M1603), PolyU, 1 December 2022
- Kwok CTK, <u>Chow FWN</u>, Seto SW. Differential expression of microRNA related to Lipopolysaccharide (LPS) induced sclerostin (SOST) generation in RAW 264.7 cells. 3<sup>rd</sup> ABCT research postgraduate symposium in the biology discipline 2022, Aug 12
- Kwok CTK, Yu RCW, Wong F, Wong JHY, Wong CC, Hau PPT, Chan SW, <u>Chow FWN</u>\* (co-corresponding), Seto SW\*. Investigation of the anti-microbial and anti-inflammatory properties of *Lantana camara L*. extracts, The 18th International Postgraduates Symposium on Chinese Medicine (IPSCM 2022); Hong Kong Exhibition Centre, Wan Chai, Hong Kong; 2022, Aug 12.
- 8. Chan W, Tsang CC, <u>Chow FWN</u>, Woo PCY, Lau Skp. A Genomic and Molecular Investigation into multi-drug resistant Candida auris in Hong Kong. 26<sup>th</sup> Research Postgraduate Symposium; LKS Faculty of Medicine Building, Pokfulam, Hong Kong; 1 Dec 2021.
- 9. José Roberto Bermúdez Barrientos, Obed Ramírez-Sánchez, <u>FWN Chow</u>, Amy H Buck, Cei Abreu-Goodger. (2020) Disentangling sRNA-Seq data to study RNA communication between species. RNA 2020. Online. May 26-31,2020.
- 10. <u>FWN Chow</u>, Georgios Koutsovoulos, Cesare Ovando Vazquez, Dominik Laetsch, José Roberto Bermúdez Barrientos, Julie Claycomb, Mark Blaxter, Cei Abreu-Goodger and Amy Buck (2018) A parasitic nematode harness novel repeats and an Argonaute protein for sRNA secretion in EV: Scope for communication with the mouse host. Edinburgh Infectious Diseases Symposium: Vesicles, Extracellular RNA and Infectious Disease workshop 2018. City Chambers, Edinburgh, United Kingdom, 9th May 2018.
- 11. <u>FWN Chow</u>, Georgios Koutsovoulos, Cesare Ovando Vazquez, Dominik Laetsch, José Roberto Bermúdez Barrientos, Julie Claycomb, Mark Blaxter, Cei Abreu-Goodger and Amy Buck (2018) A parasitic nematode harness novel repeats and an Argonaute protein for sRNA secretion in EV: Scope for communication with the mouse host. 7th Annual Edinburgh Infectious Diseases Symposium, University of Edinburgh, United Kingdom, 23 May 2018
- 12. Tom Driedonks, Susanne van der Grein, Yavuz Ariyurek, Henk Buermans, Henrike Jekel, <u>FWN Chow</u>, Amy Buck, Marca Wauben, Peter-Bram 't Hoen and Esther Nolte-'t-Hoen (2017) Differences and similarities in full-length and fragmented non-coding RNA biotypes in EV from differentially stimulated dendritic cells. OF 16.01 The Sixth International Meeting of ISEV, ISEV2017, Toronto, Canada, 18–21 May 2017.
- 13. <u>FWN Chow</u>, Cesare Ovando Vazquez, Georgios Koutsovoulos, José Roberto Bermúdez Barrientos, Tuhin Maity, Mark Blaxter, Julie Claycomb, Cei Abreu-Goodger and Amy Buck (2017) Vesicle-mediated cross-species RNA interference between the gastrointestinal nematode *Heligmosomoides polygyrus* and its mouse host. OS 22.02 The Sixth International Meeting of ISEV, ISEV2017, Toronto, Canada, 18–21 May 2017.

- 14. Jose Roberto. Bermúdez, <u>FWN Chow</u>, Amy Buck and Cei Abreu-Goodger (2017) *Heligmosomoides polygyrus* vesicle-derived small RNAs inside mouse cells: detection and targets. LBP.70 The Sixth International Meeting of ISEV, ISEV2017, Toronto, Canada, 18–21 May 2017.
- 15. <u>FWN Chow</u>, Cesare Ovando-Vazquez, Georgios Koutsovoulos, Tuhin Maity, Mark Blaxter, Julie Claycomb, Cei Abreu-Goodger, Amy Buck (2017) Investigation of extracellular small RNAs of *Heligmosomoides polygyrus*: Scope for RNAi mediated cross-species communication. Centre for Immunity, Infection and Evolution symposium: Information transmission in small RNA pathways. Royal Society of Edinburgh, United Kingdom, 10th March 2017.
- 16. <u>FWN Chow</u>, Cesare Ovando-Vazquez, Georgios Koutsovoulos, Tuhin Maity, Mark Blaxter, Julie Claycomb, Cei Abreu-Goodger, Amy Buck (2016) Investigation of extracellular small RNAs of *Heligmosomoides polygyrus*: Scope for RNAi mediated cross-species communication. Exosomes/Microvesicles: Novel Mechanisms of Cell-Cell Communication. Keystone Resort, Keystone, Colorado USA, 19-22 June 2016
- 17. **FWN Chow**, Cesare Ovando-Vazquez, Georgios Koutsovoulos, Tuhin Maity, Mark Blaxter, Julie Claycomb, Cei Abreu-Goodger, Amy Buck (2016)
  Investigation of extracellular small RNAs of *Heligmosomoides polygyrus*: Scope for RNAi mediated cross-species communication. UK ISEV Forum 2016. Oxford, 13th December 2016.
- 18. Fanny Nowacki, Martin Swain, <u>FWN Chow</u>, Juan Quantana, Oleg Klychnikov, Paul Hensbergen, Amy Buck, Cornelis H Hokke, Karl Hoffmann (2016) Schistosoma mansoni extracellular vesicles contain a rich collection of host regulatory biomolecules. Hydra 2016 Molecular and Cellular Biology of Helminth Parasites VIV. Hydra, Greece.
- Ovando-Vazquez C, <u>FWN Chow</u>, Koutsovoulos G, Maity T, Blaxter M, Claycomb J, Buck AH, Abreu-Goodger C (2016)
   Extracellular small RNAs during parasite-host communication. 2nd International Summer Symposium on Systems Biology. August 2-4, 2016. Ciudad de México, México.
- Ovando-Vazquez C, <u>FWN Chow</u>, Koutsovoulos G, Maity T, Blaxter M, Claycomb J, Buck AH, Abreu-Goodger C (2016)
   Extracellular small RNAs during parasite-host communication. 1st International Symposium on Functional Genomics and Systems Biology. August 11, 2016. Cuernavaca, Morelos, México.
- 21. Bermúdez-Barrientos JR, Ovando-Vázquez C, <u>FWN Chow</u>, Koutsovoulos G, Laetsch DR, Claycomb JM, Blaxter M, Buck AH, Abreu-Goodger C (2017) An extracellular RNA interference pathway as a mechanism of parasite-host communication. BIRS Workshop: Challenges and Synergies in the Analysis of Large-Scale Population-Based Biomedical Data. November 26 - December 1, 2017. Oaxaca, Oaxaca, Mexico.
- Bermúdez-Barrientos JR, Ovando-Vázquez C, <u>Chow FWN</u>, Koutsovoulos G, Laetsch DR, Claycomb JM, Blaxter M, Buck AH, Abreu-Goodger C (2018)
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- 23. S Shore, JM Henderson, <u>FWN Chow</u>, EWT Tam, JF Quintana, K Chhatbar, AP McCaffrey, G Zon, A Buck, RI Hogrefe (2016) Improved small RNA library preparation for ultra-low input sample types, in NGS, SCA, SMA, and Mass Spec: research to diagnostics, San Diego, CA, USA
- 24. S Shore, JM Henderson, JF Quintana, <u>FWN Chow</u>, K Chhatbar, AP McCaffrey, G Zon, A Buck, RI Hogrefe (2016)
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- 25. <u>FWN Chow</u>, Cesare Ovando-Vazquez, Georgios Koutsovoulos, Tuhin Maity, Mark Blaxter, Julie Claycomb, Cei Abreu-Goodger and Amy Buck (2016) Investigation of extracellular small RNAs of *Heligmosomoides polygyrus*: scope for RNAi mediated cross-species communication. OT10.4 The Fifth International Meeting of ISEV, ISEV2016, Rotterdam, The Netherlands, 4 – 7 May 2016
- 26. **FWN Chow**, Cei Abreu-Goodger, Julie Claycomb, Amy H. Buck (2015)
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- 27. Amy Buck, Tuhin Maity, <u>FWN Chow</u>, Georgios Koutsovoulos, Cesare Ovando-Vázquez, Mark Blaxter, Cei Abreu-Goodger, Julie Claycomb (2015)
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- 28. <u>FWN Chow</u>, Cei Abreu-Goodger, Julie Claycomb, Amy H. Buck (2015) Investigation of extracellular RNA in *Heligmosomoides polygyrus*: Are we witnessing cross species communication? 5. Hydra 2015 Molecular and Cellular Biology of Helminth Parasites VIII. Hydra, Greece.
- 29. Lo CS, Lau SKP, <u>Chow WN</u>, Woo PCY, Yuen KY. (2013)
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- 30. <u>Chow WN</u>, Woo PC, Yuen KY and Lau SKP. (2012) Identification of microRNA in *Penicillium marneffei*. P4.02 Research Postgraduate Symposium, HKU 2012, The University of Hong Kong. 13 Dec, Hong Kong.
- 31. <u>Chow WN</u>, Lee YL, Wong PC, Tse PK, Chung MK, Lee KF, Yeung WSB. (2006) Complement-3 (C3) expression and fertility study in mice. P4.19. Frontiers in Biomedical Research, HKU 2006, The University of Hong Kong. 7 Dec, Hong Kong.
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- 33. <u>Chow WN</u>, Lee YL, Wong PC, Chung MK, Tse PK, Lee KF, Yeung WSB (2006) Fertility study of complement-3 in mice. P.304. Society for Reproductive Biology 37th Annual Scientific Meeting. Aug 20-23, Gold Coast, Australia.
- 34. Yeung WS, Lee YL, <u>Chow WN</u>, Lee KF (2005)

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