

CV of Professor Tong Zhang:

1. Academic Qualification

- (1) PhD (2001), The University of Hong Kong, Hong Kong, China
- (2) MPhil (1993), Nanjing University, China
- (3) BSc (1990), Nanjing University, China

2. Positions Held (Chronological Order)

- (1) Professor, Department of Civil Engineering, The University of Hong Kong (HKU), China (2016 - present)
- (2) Associate Professor, Department of Civil Engineering, The University of Hong Kong (HKU), China (2011 - 2016)
- (3) Assistant Professor, Department of Civil Engineering, The University of Hong Kong (HKU), China (2007 - 2011)
- (4) Research Assistant Professor, Department of Civil Engineering, The University of Hong Kong (HKU), China (2004 - 2007)
- (5) Post-doctoral Fellow, Department of Civil Engineering, The University of Hong Kong (HKU), China (2001 - 2004)
- (6) Lecturer, Department of Environmental Engineering, East China University of Science and Technology, China (1993 - 1998)

3. Research Areas Related to Ocean Science, Technology and/or Policy

Prof. Zhang's researches include environmental bioinformatics, omics technologies, anaerobic digestion and bioenergy from wastes/wastewater, biological wastewater treatment (N removal and P recovery), biodegradation of emerging pollutants (antibiotics, PPCP and EDCs), antibiotic and antibiotic resistance genes, etc. Prof. Zhang has always concerned about marine environmental pollution, carrying out investigation on microbial source track, microbiomes and ARGs in marine sediments in Hong Kong.

4. Funded Research Projects as Principal Investigator (PI), Co-PI or Co-Investigator (Co-I)

over the Past 5 Years (Maximum 5 Projects):

Professor Zhang has completed a number of externally funded research projects (total value > HK\$20 m) and trained 19 PhD and 2 MPhil students as well as 30 postdoctoral researchers. At present, Professor Zhang is conducting the following projects:

- (1) Linking microbial community dynamics and interactions to partial-nitrification anammox process treating saline reject water of WWTP by using multi-omics (as PI), HK\$534,500 funded by General Research Fund of Research Grants Council, the HKSAR (Jan 2020 – Dec 2023)
- (2) Enhanced Separation and Sludge Refinery for Wastewater Treatment - Solving the Nexus of Pollution Control and Resource Recovery in Mega Cities (as Co-PI), HK 21,024,800 funded by Theme-based Research Scheme of Research Grants Council, HKSAR (Jan 2016 – Oct 2021)
- (3) A Paradigm-shifting, Fully-integrated, Compact Wastewater-to-resource Facility (WWRF) (as Co-PI), HK 35,555,000 funded by Theme-based Research Scheme of Research Grants Council, HKSAR (Jan 2020 – Oct 2024)

5. Five Key Publications over the Past 5 Years (*Corresponding author)

- (1) Ma LP, Li AD, Yin XL, **Zhang T***. 2017. The prevalence of integrons as the carrier of antibiotic resistance genes in natural and man-made environments. *Environmental Science & Technology*. 51(10): 5721-5728.
- (2) Li LG, Xia Y, **Zhang T***. 2017. Co-occurrence of antibiotic and metal resistance genes revealed in complete genome collection. *ISME J*. 11, 651-662.
- (3) Ju F, Li B, Ma LP, Wang YB, Huang DP, **Zhang T***. 2016. Antibiotic resistance genes and human bacterial pathogens: co-occurrence, removal, and enrichment in municipal sewage sludge digesters. *Water Research*. 91, 1-10.
- (4) Li B, Yang Y, Ma LP, Ju F, Guo F, Tiedje JM, **Zhang T***. 2015. Metagenomic and network analysis reveal wide distribution and co-occurrence of environmental antibiotic resistance genes. *The ISME Journal*. 9(11):2490-502.
- (5) Ju F, **Zhang T***. 2015. Bacterial assembly and temporal dynamics in activated sludge

of a full-scale municipal wastewater treatment plant. *The ISME Journal*. 9(3), 683-95.

6. Awards and Recognition

- (1) Highly Cited Researcher by Clarivate in 2018 (Cross-field) and 2019 (Environment and Ecology)
- (2) Outstanding Research Student Supervisor Award of HKU in 2017
- (3) Second-Class Award State Natural Science Award of China State Council in 2016
- (4) First-Class Award in Natural Science of China Ministry of Education in 2015
- (5) HKU Top 1% cited author for 10 years (2009 to 2018) (ISI, Essential Science Indicators)
- (6) Honorary Professor in School of Public Health, at The University of Hong Kong
- (7) Distinguishing Visiting Professors at Southern University of Science and Technology
- (8) Yi Xing Chair Professor at Nanjing University from 2013 to 2016