

Microbiology Laboratory

Lab Introduction

Infectious diseases continue to pose substantial challenges to public health. Studies of microbial source tracking and correlation between clinically and environmental pathogens can provide useful information to prevent disease transmission and disease control strategies. Moreover, One Health concept plays the key way to provide the relevant risk and control information for infections by integrated analysis from clinical environmental, animal and plant pathogens, as well as it can provide suggestions and strategies for government to develop better public health policies and effectively to achieve whole health. Important issues of one health included: zoonotic diseases, emerging infectious diseases, community hygiene, antibiotic pollution, healthy air, food safety, water safety, Psychosocial health and behaviors and QMRA risk assessment. The research interests of the Microbiology Lab include:

- Infectious microbes source tracking
- The interactions between the clinically and environmental microbial pathogens and host cells
- Environmental pathogens surveys (Aquatic environments, LTCFs, Hospitals)
- Drug resistant problems in pathogens from various environments and clinical.
- Human microbiota and diseases.
- Microbial diversity in various environments.
- One health.
- Bioaerosol.
- Bioremediation.
- Medical image analysis and topological data analysis.
- Psychosocial health and behaviors.

Principal Investigator

Jung-Sheng Chen, Ph.D.

Contact Information

TEL: +886-7-6151100 ext. 5917

Email: nicky071214@gmail.com ; ed113187@edah.org.tw

Educations

Ph.D., Department of Life Sciences, National Defense Medical Center, Taiwan.

Master, Institute of Seismology, National Chung Cheng University, Taiwan.

Bachelor, Department of Mathematics, National Chung Cheng University, Taiwan.

Academic Experiences

Duration	Department	Position
2021/02-present	Department of Medical Research, E-Da Hospital	Assistant Researcher
2021/02-2021/09	Center for General Education, National Chung Cheng University	Assistant Professor
2018/06 – 2021/01	Department of Earth and Environmental Sciences, National Chung Cheng University	Postdoctoral research fellow

Team Members

Research Assistant: Kun-Tzu Li, Yi-Ting Lu, Yu-Wen Chen, Sian Chao

Techniques & Equipments

- bacterial culture, PCR, RT-qPCR, DNA electrophoresis, gene cloning, protein expression and purification, Bioinformatics and Medical image analysis, ELISA, immunfluorescent stain and Resistomes... etc.
- Microcentrifuge, thermocycler, DNA and protein electrophoresis systems, sample storage (4°C, -20°C, -80°C refrigerators, liquid nitrogen tank), digital dry bath, thermostatic water bath, magnetic stirrer, vortex, orbital shakers, electric weighing scale, anaerobic jar... etc.

Research Projects

Project titles	PI	Source	Duration
What is Tropical Medicine? (popular science education)	Jung-Sheng Chen	National Science and Technology Council	2023/08-2024/07
Investigation of livestock-associated bioaerosol exposures and development of controlling technology : Better Air Health	Jiun-Ling Wang (PI) Jung-Sheng Chen (co-PI)	National Science and Technology Council	2023/08-2026/07
Using "ONE HEALTH" concept to investigate the possible transmission routes of drug-resistant Escherichia coli in the community - from environment, animal husbandry, food to fecal carriage among community adults.	Ping-Jei Wu (PI) Jung-Sheng Chen (co-PI)	National Science and Technology Council	2023/08-2024/07
Effects of long-term exposure to ecological threats in females: The maternal mental health, adaptive behavior, and infant outcome (MAI) study	Chao-Ying Chen (PI) Jung-Sheng Chen (co-PI)	National Science and Technology Council	2023/08-2026/07
Video-based gait recognition by human skeleton detection in older adults using machine learning technology- constructing intrinsic capacity in healthy aging	Chi-Hsien Huang (PI) Jung-Sheng Chen (co-PI)	National Science and Technology Council	2023/08-2026/07
Analysis of antibiotics and resistance genes in environmental and clinical microbiome through PMA-based Third Generation Sequencing system	Jung-Sheng Chen	National Science and Technology Council	2022/08-2024/07
The integrated study on environmental biodiversity, clinical application and quantitative microbiological risk assessment (QMRA) of pathogenic microsporidia	Jung-Sheng Chen	National Science and Technology Council	2021/08-2023/07

Evaluation and analyzation of the degradation efficiency in chlorinated organic pollution sites by the hybrid technologies of electrochemistry and nutrient-selected biostimulation.	Bing-Mu Hsu, Jung-Sheng Chen (co-PI), Shih-Wei Huang (co-PI),	EPA	2022/07-2023/06
The development of in-situ microbial remediation techniques and functional bacteria isolation from local chlorine-contaminated sites	Bing-Mu Hsu, Jung-Sheng Chen (co-PI), Shih-Wei Huang (co-PI),	EPA	2021/03-2022/01
Microbial Metabolism Analysis and Assessment from Chlorine-Contaminated Sites	Bing-Mu Hsu, Jung-Sheng Chen (co-PI), Shih-Wei Huang (co-PI),	EPA	2020/02-2020/12
The prevalence of intestine microsporidia in humans.	Ru-Yi Huang Jung-Sheng Chen (co-PI)	E-Da Hospital	2022/02-2023/01
Investigation of oral/skin/venom bacterial microbiota in Taiwan venomous snakes and associated analysis for habitat-treatment related to bacterial infection in snakebite.	Hung-Yuan Su Jung-Sheng Chen (co-PI)	E-Da Hospital	2022/02-2023/01
Detection of <i>Mycoplasma pneumoniae</i> and Bacterial communities in home air conditioners	Chien-Yi Wu Jung-Sheng Chen (co-PI)	E-Da Hospital	2022/02-2023/01

Publications (5-Years)

1. Shih-Wei Huang, Bashir Hussain, **Jung-Sheng Chen**, Aslia Asif, Bing-Mu Hsu , "Evaluating groundwater ecosystem dynamics in response to post in-situ remediation of mixed chlorinated volatile organic compounds (CVOCs): An insight into microbial community resilience, adaptability, and metabolic functionality for sustainable remediation and ecosystem restoration, "**Science of The Total Environment**, 2024/04; 920(2024): 170874
2. Xu-Yin Lin, Yi-Jia Shih, Xian-Jing Zhang, You-Shu Cai, Xiao-Wen Zhou and **Jung-Sheng Chen***, "Perspective on intestinal microbiota temporal changes of herbal additives treated shrimp in a natural aquaculture setting, "**Frontiers in Marine Science**, 2024/03; 11(2024): 1332585
3. Bashir Hussain, **Jung-Sheng Chen**, Bing-Mu Hsu, Wei-Chun Chao, Cheng-Wei Fan, "Niche-specific modulation of long-chain n-alkanes degrading bacterial community and their functionality in forest habitats across the leaf litter-soil compartments, "**Applied Soil Ecology**, 2024/03; 195(2024): 105248
4. Farah Raihana Ghazi, Wan Ying Gan, Serene En Hui Tung, I-Hua Chen, Wai Chuen Poon, Yan-Li Siaw, Kamolthip Ruckwongpatr, **Jung-Sheng Chen**, Shih-Wei Huang, Mark D Griffiths, Chung-Ying Lin , "Problematic Gaming in Malaysian University Students: Translation and

- Psychometric Evaluation of the Malay Language Versions of Gaming Disorder Test and Gaming Disorder Scale for Young Adults , **Evaluation & the Health Professions** , 2024/03; 47(1): 93-104
5. Jian Yi, I-Hua Chen, Hsin-Pao Chen, I-Ching Lin, **Jung-Sheng Chen**, Po-Ching Huang, Kerry S. O'Brien, Mark D. Griffiths, Chung-Ying Lin, "Tendency to avoid physical activity mediates the association between perceived weight stigma and physical activity levels among university students, **Mental Health and Physical Activity**, 2024/03; 26(2024): 100584
 6. Mohsen Saffari, Hung-Ching Wu, Ji-Kang Chen, Nadia Bevan, **Jung-Sheng Chen**, Hsin-Pao Chen, Mark D Griffiths, Chung-Ying Lin, "Psychometric Properties of the Tendency to Avoid Physical Activity and Sport Scale Among Hong Kong University Students, **Measurement in Physical Education and Exercise Science**, 2024/02; 待補(待補): 1-11
 7. **Jung-Sheng Chen**, Bashir Hussain, Hsin-Chi Tsai, Viji Nagarajan, Rajendran Senthil Kumar, I-Ching Lin & Bing-Mu Hsu, "Deciphering microbial communities and their unique metabolic repertoire across rock-soil-plant continuum in the Dayoukeng fumarolic geothermal field of the Tatun Volcano Group, **Environmental Science and Pollution Research**, 2024/01; 31(5): 7330-7344.
 8. Mutebi John Kenneth, Suprokash Koner, Gwo-Jong Hsu, **Jung-Sheng Chen**, Bing-Mu Hsu , "A review on the effects of discharging conventionally treated livestock waste to the environmental resistome, **Environmental Pollution**, 2023/12; 338(2023): 122643
 9. Chia-Wei Fan, Po-Ching Huang, I-Hua Chen, Yu-Ting Huang, **Jung-Sheng Chen**, Xavier C.C. Fung, Ji-Kang Chen, Yung-Ning Yang, Kerry S. O'Brien, Chung-Ying Lin, Mark D. Griffiths, "Differential item functioning for the Tendency of Avoiding Physical Activity and Sport Scale across two subculture samples: Taiwanese and mainland Chinese university students, **Heliyon**, 2023/12; 9(12): e22583
 10. Uttara Sukul, Koyeli Das, **Jung-Sheng Chen**, Raju Kumar Sharma, Gobinda Dey, Pritam Banerjee, Md. Tahari, Cheng-I Lee, Jyoti Prakash Maity, Pin-Yun Lin, Chien-Yen Chen, "Insight interactions of engineered nanoparticles with aquatic higher plants for phytoaccumulation, phytotoxicity, and phytoremediation applications: A review, **Aquatic Toxicology**, 2023/11; 264(2023): 106713
 11. Yu-Chang Chen, Wang-Chun Chen, Chia-Wei Liu, Wei-Yu Huang, I-Cheng Lu, Chi-Wei Lin, Ru-Yi Huang, **Jung-Sheng Chen** & Chi-Hsien Huang, "Is moderate resistance training adequate for older adults with sarcopenia? A systematic review and network meta-analysis of RCTs, **European Review of Aging and Physical Activity**, 2023/11; 20(2023): 22
 12. Yung-Ning Yang, Jian-An Su, Apiradee Pimsen, **Jung-Sheng Chen**, Marc N Potenza, Amir H Pakpour, Ji-Kang Chen, Wai Chuen Poon, Ira Nurmala, Kamolthip Ruckwongpatr, Chung-Ying Lin, "Validation of the Thai Assessment of Criteria for Specific Internet-use Disorders (ACSID-11) among young adults, **BMC Psychology**, 2023/11; 23(1): 819
 13. Lin-Yi Huang, Ting-I Lin, Chyi-Her Lin, San-Nan Yang, Wan-Ju Chen, Chien-Yi Wu, Hsien-Kuan Liu, Pei-Ling Wu, Jau-Ling Suen, **Jung-Sheng Chen**, Yung-Ning Yang, "Comprehensive Analysis of Risk Factors for Bronchopulmonary Dysplasia in Preterm Infants in Taiwan: A Four-Year Study, **Children-Basel**, 2023/11; 10(11): 1822
 14. Mohsen Saffari, Kun-Chia Chang, **Jung-Sheng Chen**, Marc N. Potenza, Cheng-Fang Yen, Ching-Wen Chang, Po-Ching Huang, Hsin-Chi Tsai, Chung-Ying Lin , "Sleep Quality and Self-Stigma Mediate the Association Between Problematic Use of Social Media and Quality of Life Among People With Schizophrenia in Taiwan: A Longitudinal Study , **Psychiatry Investigation**, 2023/11; 20(11): 1034-1044
 15. Bashir Hussain, **Jung-Sheng Chen**, Shih-Wei Huang, I-Sen Tsai , Jagat Rathod, Bing-Mu Hsu ,

- "Underpinning the ecological response of mixed chlorinated volatile organic compounds (CVOCs) associated with contaminated and bioremediated groundwaters: A potential nexus of microbial community structure and function for strategizing efficient bioremediation , "**Environmental Pollution** , 2023/10; 334(2023): 122215
16. Saffari M, Chen IH, Huang PC, O'Brien KS, Hsieh YP, Chen JK, Chang YH, Jiang X, Bevan N, Chang YL, **Chen JS**, Tsai CC, Griffiths MD, Lin CY., "Measurement Invariance and Psychometric Evaluation of the Tendency to Avoid Physical Activity and Sport Scale (TAPAS) Among Mainland Chinese University Students, "**Psychology Research and Behavior Management**, 2023/09; 2023(16): 3821-3836
 17. **Jung-Sheng Chen**, Bing-Mu Hsu, Wen-Chien Ko, and Jiun-Ling Wang, "Comparison of antibiotic-resistant *Escherichia coli* and extra-intestinal pathogenic *E. coli* from main river basins under different levels of the sewer system development , "**Ecotoxicology and Environmental Safety** , 2023/09; 263(2023): 115372
 18. Hung-Yuan Su, Bashir Hussain, Bing-Mu Hsu, Kuo-Hsin Lee, Yan-Chiao Mao, Liao-Chun Chiang* and **Jung-Sheng Chen***, "Bacterial community analysis identifies *Klebsiella pneumoniae* as a native symbiotic bacterium in the newborn *Protobothrops mucrosquamatus*, "**BMC Microbiology**, 2023/08; 23(2023): 213
 19. Ching-Wen Chang, **Jung-Sheng Chen**, Shih-Wei Huang, Marc N. Potenza, Jian-An Su, Kun-Chia Chang, Amir H. Pakpour, Chung-Ying Lin, " Problematic smartphone use and two types of problematic use of the internet and self-stigma among people with substance use disorders , "**Addictive Behaviors** , 2023/08; 147: 107807
 20. Tzu-Yi Wu, Shih-Wei Huang, **Jung-Sheng Chen**, Kamolthip Ruckwongpatr, Shikha Kukreti, Carol Strong, Halley M. Pontes, I-Ching Lin, Chung-Ying Lin, Marc N. Potenza, Amir H. Pakpour , "Translation and Validation of the Gaming Disorder Test and Gaming Disorder Scale for Adolescents into Chinese for Taiwanese Young Adults , "**Comprehensive Psychiatry** , 2023/07; 124(2023): 152396
 21. Rajendran Senthil Kumar[#], Suprokash Koner, Hsin-Chi Tsai[#], **Jung-Sheng Chen[#]**, Shih-Wei Huang, Bing-Mu Hsu, "Deciphering endemic rhizosphere microbiome community's structure towards the host-derived heavy metals tolerance and plant growth promotion functions in serpentine geo-ecosystem, "**Journal of Hazardous Materials**, 2023/06; 452(15): 131359
 22. Shikha Kukreti, Carol Strong, **Jung-Sheng Chen**, Yi-Jung Chen, Mark D Griffiths, Meng-Tsang Hsieh, Chung-Ying Lin, "The association of care burden with motivation of vaccine acceptance among caregivers of stroke patients during the COVID-19 pandemic: mediating roles of problematic social media use, worry, and fear, "**BMC psychology**, 2023/05; 11(1): 157
 23. Po-Ching Huang, Janet D. Latner, Kerry S. O'Brien, Yen-Ling Chang, Ching-Hsia Hung, **Jung-Sheng Chen**, Kuo-Hsin Lee & Chung-Ying Lin, "Associations between social media addiction, psychological distress, and food addiction among Taiwanese university students, "**Journal of Eating Disorders**, 2023/03; 11(2023): 43
 24. Salman Sahab Atshan, Rukman Awang Hamat, Musheer A. Aljaberi, **Jung-Sheng Chen***, Shih-Wei Huang, Chung-Ying Lin, Benjamin J. Mullins, and Anthony Kicic , "Phage Therapy as an Alternative Treatment Modality for Resistant *Staphylococcus aureus* Infections , "**Antibiotics** , 2023/02; 12(2): 286
 25. Kuan-Ying Lee, Chao-Ying Chen, Ji-Kang Chen, Chih-Ching Liu, Kun-Chia Chang, Xavier C.C. Fung, **Jung-Sheng Chen**, Yu-Chia Kao; Marc N. Potenza, Amir H. Pakpour, "Exploring mediational roles for self-stigma in associations between types of problematic use of internet and psychological distress in youth with ADHD, "**Research in Developmental Disabilities**, 2023/02;

133: 104410

26. Yi-Jung Chen, Jian-An Su, **Jung-Sheng Chen**, Chieh-hsiu Liu, Mark D. Griffiths, Hsin-Chi Tsai, Chih-Cheng Chang, Chung-Ying Lin, "Examining the association between neuropsychiatric symptoms among people with dementia and caregiver mental health: are caregiver burden and affiliate stigma mediators?" **BMC Geriatrics**, 2023/01; 23(1): 277
27. Suprokash Koner[#], **Jung-Sheng Chen**[#], Jagat Rathod, Bashir Hussain, Bing-Mu Hsu, "Unravelling the ultramafic rock-driven serpentine soil formation leading to the geo-accumulation of heavy metals: An impact on the resident microbiome, biogeochemical cycling and acclimatized eco-physiological profiles," **Environmental Research**, 2023/01; 216(Part 4): 114664
28. Viji Nagarajan, Hsin-Chi Tsai, **Jung-Sheng Chen**, Suprokash Koner, Rajendran Senthil Kumar, Hung-Chun Chao, and Bing-Mu Hsu, "Systematic assessment of mineral distribution and diversity of microbial communities and its interactions in the Taiwan subduction zone of mud volcanoes," **Environmental Research**, 2023/01; 216(Part 2): 114536
29. Kang-Po Lee, **Jung-Sheng Chen**, Chih-Yuan Wang, "Association between diabetes mellitus and post-stroke cognitive impairment," **Journal of Diabetes Investigation**, 2023/01; 14(1): 6-11
30. **Jung-Sheng Chen**, Bashir Hussain, Hsin-Chi Tsai, Viji Nagarajan, Suprokash Koner, Bing-Mu Hsu (2023, Jan.) Analysis and interpretation of hot springs water, biofilms, and sediment bacterial community profiling and their metabolic potential in the area of Taiwan geothermal ecosystem. **Science of The Total Environment** (SCI, 26/279 Environmental science) (**Journal IF:10.754**) PubMed: 6181827 **First author**
31. Suprokash Koner, **Jung-Sheng Chen**[#], Jagat Rathod, Bashir Hussain, and Bing-Mu Hsu (2022, Nov.) Unravelling the ultramafic rock-driven serpentine soil formation leading to the geo-accumulation of heavy metals: An impact on the resident microbiome, biogeochemical cycling and acclimatized eco-physiological profiles. *Environmental Research* (SCI, 37/279 Environmental science) (**Journal IF:8.431**) PubMed: 35810813**Co-First author**
32. Viji Nagarajan, Hsin-Chi Tsai, **Jung-Sheng Chen**, Suprokash Koner, Rajendran Senthil Kumar, Hung-Chun Chao, and Bing-Mu Hsu (2023, Jan.) Systematic assessment of mineral distribution and diversity of microbial communities and its interactions in the Taiwan subduction zone of mud volcanoes. *Environmental Research* (SCI, 37/279 Environmental science) (**Journal IF:8.431**) PubMed:36228688
33. Suprokash Koner, Hsin-Chi Tsai, **Jung-Sheng Chen**[#], Bashir Hussain, Rajendran Senthil Kumar and Bing-Mu Hsu (2022, Nov.) Exploration of pristine plate-tectonic plains and mining exposure areas for indigenous microbial communities and its impact on the mineral-microbial geochemical weathering process in ultramafic setting. *Environmental Research* (SCI, 37/279 Environmental science) (**Journal IF:8.431**) PubMed: 35810813**Co-First author**
34. Chao-Ying Chen, **Jung-Sheng Chen**[#], Chung-Ying Lin, Ray C. Hsiao, Ching-Shu Tsai, and Cheng-Fang Yen (2022, Oct.) Difficulties in Managing Children's Learning among Caregivers of Children with Attention-Deficit/Hyperactivity Disorder during the COVID-19 Pandemic in Taiwan: Association with Worsened Behavioral and Emotional Symptoms. *International Journal of Environmental Research and Public Health* (SCI/SSCI, 45/182 Public, Environmental, & Occupational Health) (**Journal IF:4.614**) **Co-First author**
35. Kang-Po Lee, **Jung-Sheng Chen**, Chih-Yuan Wang (2022, Oct.) Association between diabetes mellitus and post-stroke cognitive impairment. *Journal of Diabetes Investigation* (SCI, 84/146 ENDOCRINOLOGY & METABOLISM) (**Journal IF:3.681**)
36. Chin-Shiang Tsai, Ya-Lien Cheng, **Jung-Sheng Chen**, Pei-Jane Tsai, Bo-Yang Tsai, Bing-Mu Hsu, I-Hsiu Huang (2022, Oct.) Hypervirulent *Clostridioides difficile* RT078 lineage isolates from the

- river: a potential reservoir for environmental transmission. *Journal of Microbiology, Immunology and Infection* (SCI, 15/95 Infectious Diseases) (**IF: 10.273**)
37. Wei Liu; **Jung-Sheng Chen**; Wan Ying Gan; Wai Chuen Poon; Serene En Hui Tung; Ling Jun Lee; Ping Xu; I-Hua Chen; Mark D. Griffiths; Chung-Ying Lin (2022, Sep.) Associations of Problematic Internet Use, Weight-Related Self-Stigma, and Nomophobia with Physical Activity: Findings from Mainland China, Taiwan, and Malaysia. *International Journal of Environmental Research and Public Health* (SCI/SSCI, 45/182 Public, Environmental, & Occupational Health) (**Journal IF:4.614**)
 38. Serene En Hui Tung, Wan Ying Gan, Jung-Sheng Chen, Ruckwongpatr Kamolthip, Iqbal Pramukti, Siti R. Nadhiroh, Yen-Ling Chang, Chien-Chin Lin, Amir H. Pakpour, Chung-Ying Lin, and Mark D. Griffiths (2022, Sep.) Internet-Related Instruments (Bergen Social Media Addiction Scale, Smartphone Application-Based Addiction Scale, Internet Gaming Disorder Scale-Short Form, and Nomophobia Questionnaire) and Their Associations with Distress among Malaysian University Students. *Healthcare* (SCI/SSCI, 35/88 HEALTH POLICY & SERVICES) (**Journal IF:3.16**)
 39. Mohsen Saffari , Hsin-Pao Chen , Ching-Wen Chang , Chia-Wei Fan , Shih-Wei Huang , Jung-Sheng Chen , Kun-Chia Chang and Chung-Ying Lin (2022, Aug.) Effects of sleep quality on the association between problematic internet use and quality of life in people with substance use disorder. *BJPsych Open* (SCI/SSCI, 42/143 PSYCHIATRY) (**Journal IF:5.165**)
 40. **Jung-Sheng Chen**, Hsin-Chi Tsai, Viji Nagarajan, Bing-Mu Hsu (2022, Jul.) Adenovirus in fishery harbors and identification of contamination sources. *Water Research* (SCI, 1/100 Water resources) (**Journal IF:13.4**) **First author**
 41. Chang KC, Chang YH, Yen CF, **Chen JS**, Chen PJ*, Lin CY*, Griffiths M D, Potenza M N, Pakpour A H (2022, Jul.) A longitudinal study of the effects of problematic smartphone use on social functioning among people with schizophrenia: Mediating roles for sleep quality and self-stigma. *Journal of Behavioral Addictions* (SCI/SSCI, 19/143 PSYCHIATRY) (**Journal IF:7.772**)
 42. Chung-Ming Lu, Raju K. Sharma, Pin-Yun Lin, Yi-Hsun Huang, Jung-Sheng Chen, Wen-Chien Lee, and Chien-Yen Chen (2022, Jun.) Characteristics of Doped TiO₂ Nanoparticle Photocatalysts Prepared by the Rotten Egg White. *Materials* (SCI, 18/79 METALLURGY & METALLURGICAL ENGINEERING) (**Journal IF:3.748**)
 43. Viji Nagarajan, Hsin-Chi Tsai, **Jung-Sheng Chen[#]**, Bashir Hussain, Suprokash Koner, Zeng-Yei Hseu and Bing-Mu Hsu (2022, Jun.) Comparison of bacterial communities and their functional profiling using 16S rRNA gene sequencing between the inherent serpentine-associated sites, hyper-accumulator, downgradient agricultural farmlands, and distal non-serpentine soils. *Journal of Hazardous Materials* (SCI, 9/279 Environmental science) (**Journal IF:14.224**) **Co-First author**
 44. Yu-Ping Wu, Daniel Kwasi Ahorsu, Jung-Sheng Chen, Chiu-Hsiang Lee, Chung-Ying Lin, Mark D Griffiths (2022, Jun.) The role of demographic factors, mindfulness and perceived stress in resilience among nurses: A cross sectional study. *Journal of Nursing Management* (SCI/SSCI, 3/125 NURSING) (**Journal IF:4.68**)
 45. **Jung-Sheng Chen**, Hsin-Chi Thai, Yu-Ling Hsu, Viji Nagarajan, Hung-Yuan Su, Bashir Hussain, Bing-Mu Hsu* (2022, Apr.) Comprehensive assessment of bacterial communities and their functional profiles in the Huang Gang Creek in the Tatun Volcano Group basin, Taiwan using 16S rRNA amplicon sequencing. *Ecotoxicology and Environmental Safety* (SCI, 29/279 Environmental science) (**Journal IF:7.129**) **First author**
 46. Viji Nagarajan, **Jung-Sheng Chen[#]**, Gwo-Jong Hsu, Hsin-Pao Chen, Hung-Chun Chao, Shih-Wei

- Huang, I-Sen Tsai, Bing-Mu Hsu * (2022, Mar.) Surveillance of adenovirus and norovirus contaminants in the water and shellfish of major oyster breeding farms and fishing ports in Taiwan. *Pathogens* (SCI, 58/137 MICROBIOLOGY) (**Journal IF:4.531**) **Co-First author**
47. Ping Xu, **Jung-Sheng Chen**[#], Yen-Ling Chang, Xiaodong Wang, Xingyong Jiang, Mark Griffiths, Amir H Pakpour, Chung-Ying Lin (2022, Mar.) Gender Differences in the Associations Between Physical Activity, Smartphone Use, and Weight Stigma. *Frontiers in Public Health* (SSCI/SCI, 18/182 Public, Environmental, & Occupational Health) (**Journal IF:6.461**) **Co-First author**
48. Wen-Yi Huang, Hector W.H. Tsang, Shu-Mei Wang, Yu-Chen Huang, Yi-Chun Chen, Chih-Heng Cheng, Chih-Yin Chen, **Jung-Sheng Chen**, Yen-Ling Chang, Ru-Yi Huang, Chung-Ying Lin, Marc N. Potenza, Amir H. Pakpour (2022, Mar.) Effectiveness of using calligraphic activity to treat people with schizophrenia: A randomized controlled trial in Southern Taiwan. *Therapeutic Advances in Chronic Disease* (SCI, 28/167 PHARMACOLOGY & PHARMACY) (**Journal IF:4.97**)
49. Ruckwongpatr Kamolthip, Mohsen Saffari, Xavier, C. C. Fung, Kerry S. O'Brien, Yen-Ling Chang, Yi-Ching Lin, Chung-Ying Lin, **Jung-Sheng Chen***, Janet D. Latner (2022, Feb.) The Mediation Effect of Perceived Weight Stigma in Association Between Weight Status and Eating Disturbances Among University Students: Is There Any Gender Difference? *Journal of Eating Disorders* (SCI/SSCI, 30/131 PSYCHIATRY, CLINICAL) (**Journal IF:4.916**)
50. Mohsen Saffari, **Jung-Sheng Chen**, Hung-Ching Wu, Xavier C.C. Fung, Chih-Cheng Chang, Yen-Ling Chang, Ruckwongpatr Kamolthip, Marc N. Potenza, I-Ching Lin, and Chung-Ying Lin (2022, Feb.) Effects of Weight-Related Self-Stigma and Smartphone Addiction on Female University Students' Physical Activity Levels. *International Journal of Environmental Research and Public Health*. (SCI/SSCI, 45/182 Public, Environmental, & Occupational Health) (**Journal IF:4.614**)
51. Viji Nagarajan, Hsin-Chi Tsai, **Jung-Sheng Chen**[#], Bashir Hussain, Cheng-Wei Fan, Aslia Asif and Bing-Mu Hsu* (2022, Feb.) The Evaluation of Bacterial Abundance and Functional Potentials in the Three Major Watersheds, Located in the Hot Spring Zone of the Tatun Volcano Group Basin, Taiwan. *Microorganisms*. (SCI, 68/158 Microbiology) (**IF: 4.926**) **Co-First author**.
52. Bing-Mu Hsu, **Jung-Sheng Chen**, Gwo-Jong Hsu, Suproakash Koner, Viji Nagarajan and Hsin-Chi Tsai* (2022, Jan.) Role of Bioaerosols on the Short-Distance Transmission of Multidrug-Resistant Methicillin-Resistant Staphylococcus aureus (MRSA) in a Chicken Farm Environment. *Antibiotics*. (SCI, 39/95 Infectious Diseases) (**IF: 5.222**)
53. Ka-Ki Gary, Carol Strong, Yat-Hang Chan, Roger Yat-Nork, **Jung-Sheng Chen**, Yi-Hsuan Lin, Ru-Yi Huang*, Chung-Ying Lin*, Nai-Ying Ko (2022, Jan.) Psychological distress and protective behaviors during the COVID-19 pandemic among different populations: Hong Kong general population, Taiwan healthcare workers, and Taiwan outpatients. *Frontiers in Medicine* (SCI, 28/167 Medicine, General & Internal) (**Journal IF:5.093**)
54. Viji Nagarajan, Jung-Sheng Chen, Bing-Mu Hsu*, Gwo-Jong Hsu, Jiun-Ling Wang and Bashir Hussain (2021, Dec.) Prevalence, distribution, and genotypes of adenovirus and norovirus in the Puzi River and its tributaries and the surrounding areas in Taiwan. *GeoHealth* (SCI, 40/210 Public, Environmental, & Occupational Health) (**Journal IF:6.343**)
55. **Jung-Sheng Chen**, Yu-Te Huang, Chung-Ying Lin *, Cheng-Fang Yen Yen*, Mark D. Griffiths, Amir H. Pakpour (2021, Dec.) Relationships of Sexual Orientation Microaggression with Anxiety and Depression Among Lesbian, Gay and Bisexual Taiwanese Youth: Self-Identity Disturbance Mediates But Gender Does Not Moderate the Relationships. *International Journal of Environmental Research and Public Health*. (SCI/SSCI, 45/182 Public, Environmental, &

Occupational Health) (**Journal IF:4.614**)**First author**

56. Chuan-Shen Hu, Austin Lawson, **Jung-Sheng Chen***, Yu-Min Chung*, Clifford Smyth, Shih-Min Yang (2021, Nov.) TopoResNet: A Hybrid Deep Learning Architecture and its Application to Skin Lesion Classification. 9(22), 2924; *Mathematics* (SCI, 24/330 Mathematics) (**Journal IF: 2.258**)
Corresponding author
57. Ho-Chuan Hsu, **Jung-Sheng Chen**, Viji Nagarajan, Bashir Hussain, Shih-Wei Huang, Jagat Rathod and Bing-Mu Hsu* (2021, Nov.) Assessment of Temporal Effects of a Mud Volcanic Eruption on the Bacterial Community and Their Predicted Metabolic Functions in the Mud Volcanic Sites of Niaosong, Southern Taiwan. *Microorganisms*. (SCI, 68/158 Microbiology) (**IF: 4.926**)
58. **Jung-Sheng Chen**, Gwo-Jong Hsu, Bing-Mu Hsu, Pei-Yu Yang, Yi-Jie Kuo, Jiun-Ling Wang, Bashir Hussain, and Shih-Wei Huang (2021, Oct.) Prevalence, virulence-gene profiles, antimicrobial resistance, and genetic diversity of human pathogenic *Aeromonas* spp. from shellfish and aquatic environments. *Environmental Pollution*. (SCI, 23/274 Environmental science) **First author. (Journal IF: 8.071)**
59. **Jung-Sheng Chen**, Hsin-Chi Tsai, Bing-Mu Hsu*, Cheng-Wei Fan, Chuan-Yin Fang, Tung-Yi Huang, Shih-Wei Huang, Chien-Yi Tung, Viji Nagarajan (2021, Oct.) The role of bacterial community in the formation of a stalactite in coral limestone areas of Taiwan by 16S rRNA gene amplicon surveys. 665. *Environmental Earth Sciences*. (SCI, 95/200 Geosciences) **First author. (Journal IF:3.119)**
60. Suproakash Koner[#], **Jung-Sheng Chen[#]**, Bing-Mu Hsu*, Jagat Rathod, Shih-Wei Huang, Hua-Yi Chien, Bashir Hussain and Michael W. Y. Chan. (2021, Oct.) Depth-resolved microbial diversity and functional profiles of trichloroethylene-contaminated soils for Biolog EcoPlate-based biostimulation strategy. 127266. *Journal of Hazardous Materials*. (SCI, 9/279 Environmental science) (**Journal IF:14.224**) **Co-First author.**
61. Tsui-Kang Hsu[#], **Jung-Sheng Chen[#]**, Hsin-Chi Tsai ,Chi-Wei Tao , Yu-Yin Yang ,Ying-Chin Tseng , Yi-Jie Kuo , Dar-Der Ji , Jagat Rathod and Bing-Mu Hsu* (2021, Oct.) Efficient nested-PCR-based method development for detection and genotype identification of *Acanthamoeba* from a small volume of aquatic environmental sample. 21740 *Scientific Reports*. (SCI, 17/72 Multidisciplinary Sciences) (**IF: 4.38**) **Co-First author.**
62. Suproakash Koner[#], **Jung-Sheng Chen[#]**, Bing-Mu Hsu*, Chao-Wen Tan[#], Cheng-Wei Fan, Tsung-Hsien Chen, Bashir Hussain and Viji Nagarajan. (2021, Aug.) Assessment of carbon substrate catabolism pattern and functional metabolic pathway for microbiota of limestone caves. 1789. *Microorganisms*. (SCI, 52/136 Microbiology) (**IF: 4.128**) **Co-First author.**
63. Chuan-Yin Fang[#], **Jung-Sheng Chen[#]**, Bing-Mu Hsu*, Bashir Hussain[#], Jagat Rathod and Kuo-Hsin Lee. (2021. Jul.) Colorectal Cancer Stage-Specific Fecal Bacterial Community Fingerprinting of the Taiwanese Population and Underpinning of Potential Taxonomic Biomarkers. 1548 *Microorganisms*. (SCI, 52/136 Microbiology) (**IF: 4.128**) **Co-First author.**
64. I-Ching Lin[#], Bashir Hussain[#], Bing-Mu Hsu*,**Jung-Sheng Chen[#]**, Yu-Ling Hsu[#],Yi-Chou Chiu, Shih-Wei Huang and Jiun-Ling Wang. (2021, Apr.) Prevalence, Genetic Diversity, Antimicrobial Resistance, and Toxigenic Profile of *Vibrio vulnificus* Isolated from Aquatic Environments in Taiwan. *Antibiotics*. (SCI, 26/92 Infectious Diseases) (**IF: 4.639**) **Co-First author.**
65. Chia-Wei Fan[#], **Jung-Sheng Chen[#]**, Frimpong-Manso Addo, Emma Sethina Adjaottor, Gifty Boakye Amankwaah, Cheng-Fang Yen[#], Daniel Kwasi Ahorsu*, Chung-Ying Lin* (2021, Dec.) Examining the validity of the drivers of COVID-19 vaccination acceptance scale using Rasch

- analysis. *Expert Review of Vaccines* (SCI, 57/162 Immunology) (IF: 5.217) Co-First author.
66. Meng-Tsang Hsieh, **Jung-Sheng Chen**, Chung-Ying Lin, Cheng-Fang Yen, Mark D. Griffiths, and Yu-Te Huang (2021, Nov) Measurement Invariance of the Sexual Orientation Microaggression Inventory across LGB Males and Females in Taiwan: Bifactor Structure Fits the Best. 18, 10668. (SCI/SSCI, 42/176Public, Environmental, & Occupational Health) (Journal IF:3.390)
 67. Viji Nagarajan, **Jung-Sheng Chen**, Bing-Mu Hsu*, Gwo-Jong Hsu, Jiun-Ling Wang and Bashir Hussain (2021, Dec.) Prevalence, distribution, and genotypes of adenovirus and norovirus in the Puzi River and its tributaries and the surrounding areas in Taiwan. *GeoHealth* Accepted. (IF:4.529, Ranking: 41/203)
 68. Bashir Hussain, **Jung-Sheng Chen**, Bing-Mu Hsu*, I-Tseng Chu, Suproakash Koner, Tsung-Hsien Chen, Jagat Rathod and Michael W. Y. Chan. (2021, Jul.) Deciphering Bacterial Community Structure, Functional Prediction and Food Safety Assessment in Fermented Fruits Using Next-Generation 16S rRNA Amplicon Sequencing. 1574. *Microorganisms*. (SCI, 52/136 Microbiology) (IF: 4.128)
 69. Yi-Jia Shih, **Jung-Sheng Chen**, Yi-Jen Chen, Pei-Yu Yang, Yi-Jie Kuo, Tsung-Hsien Chen, Bing-Mu Hsu* (2021, Aug.) Impact of heavy precipitation events on pathogen occurrence in estuarine areas of the Puzi River in Taiwan. e0256266. *Plos one*. (Journal IF:3.24)
 70. Bing-Mu Hsu, **Jung-Sheng Chen**, I-Ching Lin, Gwo-Jong Hsu, Suproakash Koner, Bashir Hussain, Shih-Wei Huang, Hsin-Chi Tsai * (2021, Jun) Molecular and Anti-Microbial Resistance (AMR) Profiling of Methicillin-Resistant Staphylococcus aureus (MRSA) from Hospital and Long-Term Care Facilities (LTCF) Environment. *Antibiotics*. (SCI, 39/95 Infectious Diseases) (IF: 5.222)
 71. Chi-Wei Tao, **Jung-Sheng Chen**, Bing-Mu Hsu, Suproakash Koner, Tung-Che Hung, Han-Ming Wu and Jagat Rathod. (2021, Jul.) Molecular Evaluation of Traditional Chicken Farm-Associated Bioaerosols for Methicillin-Resistant Staphylococcus aureus Shedding. 917. *Antibiotics*. (SCI, 39/95 Infectious Diseases) (IF: 5.222)
 72. Tsui-Kang Hsu, Hsin-Chi Tsai, Bing-Mu Hsu, Yu-Yin Yang and **Jung-Sheng Chen** (2020, Nov.). Prevalence, enterotoxin-gene profiles, antimicrobial resistance, and genetic diversity of *Bacillus cereus* group in aquatic environments and shellfish. *Science of the Total Environment* 1;758:143665. (IF:6.551) (SCI).
 73. Hsin-Chi Tsai, Chi-Wei Tao, Bing-Mu Hsu*, Yu-Ying Yan, Ying-Chin Tseng, Tung-Yi Huang, Shih-Wei Huang, Yi-Jie Kuo, **Jung-Sheng Chen**. Multidrug-resistance in methicillin-resistant Staphylococcus aureus (MRSA) isolated from a subtropical river contaminated by nearby livestock industries. *Ecotoxicology and Environmental Safety*. Volume 200, 1 September 2020, 110724 (SCI).
 74. **Jung-Sheng Chen**, Tsui-Kang Hsu, Bing-Mu Hsu*, Shih-Chun Chao, Tung-Yi Huang, Dar-Der Ji, Pei-Yu Yang, I-Hsiu Huang (2019, Nov.) Molecular characterization and significance of swimming pool-associated *Vittaforma*-like microsporidia related to the first recorded microsporidial keratitis outbreak in Taiwan. *Emerging Infectious Diseases*. (SCI, 9/95 Infectious Diseases) First author. (Journal IF:16.126)