

Yu-Chun Wang, Ph.D.

王玉純

Professor, Department of Environmental Engineering, Chung Yuan Christian University

Chief Sustainability Officer, Office of Institutional Research & Sustainable Development

Research expertise: Environmental Epidemiology | Climate Change & Health | Air-Pollution Health Risk Assessment | Health Early-Warning Systems

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1. Research Interests

My research centers on the health impacts of, and adaptation to, global environmental change, integrating environmental engineering, public health, atmospheric science and climate services. Using nationwide population-based health-insurance and vital-statistics data for Taiwan's 23 million residents together with meteorological, air-quality and remote-sensing data, my work spans:

- Mortality and morbidity risks of extreme temperatures (heatwaves and cold spells) for all-cause, circulatory, respiratory, renal and mental disorders
- Health impacts and risk assessment of air pollution (PM2.5 and its constituents, VOCs, ozone, Asian dust storms)
- Climate variability and infectious diseases (dengue, diarrhea, enterovirus, influenza) across the Asia-Pacific
- Health early-warning systems, vulnerability assessment and climate-change health adaptation
- Water quality, green-chemistry education and environmental sustainability (SDGs / net-zero transition)

2. Education

- **2002-2007** Ph.D., Institute of Environmental Health, National Taiwan University
- **2000-2002** M.S., Institute of Environmental Health, National Taiwan University
- **1996-2000** B.S., Department of Environmental Science, Tunghai University

3. Academic Appointments

Current

- Chief Sustainability Officer & Dean, Office of Institutional Research and Sustainable Development, Chung Yuan Christian University (CYCU) (2023-present)
- Professor, Department of Environmental Engineering, CYCU (2017-present)
- Joint Research Fellow, Research Center for Environmental Changes, Academia Sinica (2021-present)
- Steering Committee member, Future Earth Health Knowledge-Action Network (2023-present)
- Member, Future Earth Taipei Health Group (2021-present)

Previous

- Department Chair, Environmental Engineering, CYCU (2017-2021)
- Associate Professor, CYCU (2013-2017)
- Section Director, Center of Environmental Safety and Hygiene, CYCU (2013-2016)
- Assistant Professor, CYCU (2007-2013)

4. Research Metrics (Web of Science, Jun 2026)

Publications	Total Citations	h-index	Avg. Cites/Paper
77 (WoS: 73)	1,598	23	21.89

ResearcherID: PTG-0577-2026. Avg. cites/paper = 1,598 ÷ 73 (WoS Core Collection records).

5. Journal Publications

77 peer-reviewed journal articles (72 SCI/SSCI-indexed = 68 SCI-class + 4 TSSCI); as corresponding author (*). (# co-first author). Listed in reverse chronological order.

2026 (2)

- [77] Lailatus Siami, Ayushi Sharma, Hsi-Yu Hsiao, Chun-Jen Tsai, Shih-Chun Candice Lung, Huey-Jen Su, Ching-Fen Shen, Nai-Tzu Chen, Pei-Chih Wu, Cheng-Yu Lin, Sheng-Fu Liang, Tain-Junn Cheng, Ta-Chien Chan, Yaw-Shyan Tsay, Hsin-Ying Chung, Lin-Chi Wang, **Yu-Chun Wang***. "Combined Effects of Fine Particulate Matter and Ozone on Emergency Ambulance Dispatches in Southern Taiwan." *Aerosol and Air Quality Research*, in press, DOI 10.1007/s44408-026-00143-0. [SCIE]
- [76] Wen-Hua Lee, Chen-Ta Lin, Pei-Chih Wu, Sheng-Fu Liang, Cheng-Yu Lin, **Yu-Chun Wang**, Shih-Chun Candice Lung, Tain-Junn Cheng. "Effects of inflammatory markers and sleep quality in stroke patients by reducing residential PM2.5 levels: A case-crossover intervention." *Science of the Total Environment*, vol. 1013. [SCIE]

2025 (4)

- [75] Lailatus Siami, Brenda Venitta Lantu, Jen-Yang Lin, Fung-Chang Sung, Chi-Feng Chen, Lin-Chi Wang, Lin-Han Chiang Hsieh, **Yu-Chun Wang***. "Insights into climate change effect on biochemical oxygen demand in Asian rivers: a comprehensive review and bibliometric analysis." *Sustainable Environment Research*, vol. 36(5). [SCI]
- [74] Xian-Lun Liao, Dhayanantha Prabu Jaihindh, Tzu-Ting Chang, Yi-Feng Lin, Wei-Hung Chiang, **Yu-Chun Wang**. "Effective Peroxymonosulfate Activation Over Cobalt Oxide (CoO)/Nitrogen-doped Graphene Aerogel for Rhodamine B Degradation." *Journal of Water Process Engineering*, vol. 79. [SCI]
- [73] Ayushi Sharma, Priya Dutta, Priyanka Shah, Veena Iyer, Hao He, Chuansi Gao, Amir Sapkota, **Yu-Chun Wang***. "Comparison of Bio-meteorological index and temperature linked mortality: A case study from Ahmedabad city, India." *International Journal of Biometeorology*, vol. 69. [SCI]
- [72] Gerry Andhikaputra, Li-Wen Deng, Hsi-Yu Hsiao, Yu-Kai Lin, Ta-Chien Chan, Hsuan-Fu Chao, **Yu-Chun Wang***. "Modification effects of socioeconomic, demographic, and geographic factors on the association between temperature and cause-specific mortality." *International Journal of Biometeorology*, vol. 69. [SCI]

2024 (11)

- [71] Raul Cruz-Cano, Ayushi Sharma, Gerry Andhikaputra, Hao He, Chuansi Gao, **Yu-Chun Wang**, Meghnath Dhimal, Amir Sapkota. "A Prototype Early Warning System for Diarrhoeal Disease to Combat Health Threats of Climate Change in the Asia-Pacific Region." *Environmental Research Letters*. [SCI]
- [70] Lailatus Siami, **Yu-Chun Wang**, Lin-Chi Wang*. "Quantifying Future Annual Fluxes of Polychlorinated Dibenzo-P-Dioxin and Dibenzofuran Emissions from Sugarcane Burning in Indonesia via Grey Model." *Atmosphere*. [SCI]
- [69] Ayushi Sharma, Ya-Jing Kang, Min-Chun Lin, Li-Wen Deng, Yu-Kai Lin, Lin-Han Chiang Hsieh, Fung-Chang Sung, **Yu-Chun Wang***. "Emergency room visits (ERVs) among occupational groups associated with ambient conditions in Taiwan." *International Archives of Occupational and Environmental Health*. [SCI]
- [68] Yi-Hsing Chang, Ting-Hsuan Chen, Hsin-Ying Chung, Hsi-Yu Hsiao, Pin-Chieh Tseng, **Yu-Chun Wang**, Shih-Chun Candice Lung, Huey-Jen Su, Yaw-Shyan Tsay. "The health risk reduction of PM2.5 via a green curtain system in Taiwan." *Building and Environment*, vol. 255. [SCI]
- [67] Jia-Lin Zhang#, **Yu-Chun Wang**#, Yi-Lien Lee, Chun-Yuh Yang, Pei-Shih Chen. "Airborne Influenza Virus in Daycare Centers (#co-first author)." *Viruses-Basel*, vol. 16. [SCI]
- [66] Jia-Hong Tang, Ying-Jhen Huang, Ping-Hsien Lee, Yu-Ting Lee, **Yu-Chun Wang***, Ta-Chien Chan. "Associations between community green view index and fine particulate matter from Airboxes." *Science of the Total Environment*, vol. 921. [SCI]
- [65] Ayushi Sharma, Priya Dutta, Priyanka Shah, Veena Iyer, Hao He, Amir Sapkota, Chuansi Gao, **Yu-Chun Wang***. "Characterizing the effects of extreme heat events on all-cause mortality: A case study in Ahmedabad city of India, 2002-2018." *Urban Climate*, vol. 54. [SCI]
- [64] Ayushi Sharma, Bima Sakti Satria Wibawa, Gerry Andhikaputra, Bhavin Solanki, Amir Sapkota, Lin-Han Chiang Hsieh, Veena Iyer, **Yu-Chun Wang***. "Spatial analysis of food and water-borne diseases in Ahmedabad, India: Implications for urban public

health planning." *Acta Tropica*, vol. 253. [SCI]

- [63] Jakob Eggeling, Chuansi Gao, Dong An, Raul Cruz-Cano, Hao He, Linus Zhang, **Yu-Chun Wang**, Amir Sapkota. "Spatiotemporal link between El Nino Southern Oscillation (ENSO), extreme heat, and thermal stress in the Asia-Pacific region." *Scientific Reports*, vol. 14. [SCI]
- [62] Ayushi Sharma, Hsi-Yu Hsiao, Jia-Yi Liu, Shih-Chun Candice Lung, Huey-Jen Su, Ching-Fen Shen, Nai-Tzu Chen, Pei-Chih Wu, Cheng-Yu Lin, Sheng-Fu Liang, Tain-Junn Cheng, Ta-Chien Chan, Yaw-Shyan Tsay, Hsin-Ying Chung, **Yu-Chun Wang***. "Assessment of PM2.5-associated mortality burden among the elderly: Insights into demographic, socio-economic, and geographic factors." *Air Quality, Atmosphere & Health*. [SCI]
- [61] Bima Sakti Satria Wibawa, **Yu-Chun Wang***, Gerry Andhikaputra, Yu-Kai Lin, Lin-Han Chiang Hsieh, Kun-Hsien Tsai. "The impact of climate variability on dengue fever risk in central Java, Indonesia." *Climate Services*, vol. 33. [SCI]

2023 (7)

- [60] Ayushi Sharma, Yu-Kai Lin, Chu-Chih Chen, Li-Wen Deng, **Yu-Chun Wang***. "Projections of temperature-associated mortality risks under the changing climate in an ageing society." *Public Health*, vol. 221. [SCI]
- [59] Dong An, Jakob Eggeling, Linus Zhang, Hao He, Amir Sapkota, **Yu-Chun Wang**, Chuansi Gao. "Extreme precipitation patterns in the Asia-Pacific region and its correlation with El Nino-Southern Oscillation (ENSO)." *Scientific Reports*, vol. 13(1). [SCI]
- [58] Ayushi Sharma, Li-Wen Deng, **Yu-Chun Wang***. "Estimation of effects of extreme temperature on the risk of hospitalisation in Taiwan." *Journal of Epidemiology & Community Health*, vol. 77(6). [SCI]
- [57] Gerry Andhikaputra, Yu-Han Lin, **Yu-Chun Wang***. "Effects of Temperature, Rainfall, and El Nino Southern Oscillations on Dengue-Like-Illness Incidence in Solomon Islands." *BMC Infectious Diseases*, vol. 23(1). [SCI]
- [56] Gerry Andhikaputra, Amir Sapkota, Yu-Kai Lin, Ta-Chien Chan, Chuansi Gao, Li-Wen Deng, **Yu-Chun Wang***. "The Impact of Temperature and Precipitation on All-Infectious-, Bacterial-, and Viral-Diarrheal Disease in Taiwan." *Science of the Total Environment*, vol. 862. [SCI]
- [55] Gerry Andhikaputra, Ayushi Sharma, Amir Sapkota, Hao He, Yu-Kai Lin, Li-Wen Deng, **Yu-Chun Wang***. "Quantifying the effects of anomalies of temperature, precipitation, and surface water storage on diarrhea risk in Taiwan." *Epidemiology and Health*, vol. 45. [SCI]
- [54] Bima Sakti Satria Wibawa, Aussie Tahta Maharani, Gerry Andhikaputra, Marsha Savira Agatha Putri, Aditya Prana Iswara, Amir Sapkota, Ayushi Sharma, Arie Dipareza Syaifei, **Yu-Chun Wang***. "Effects of Ambient Temperature, Relative Humidity, and Precipitation on Diarrhea Incidence in Surabaya." *International Journal of Environmental Research and Public Health*, vol. 20(3). [SCI]

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- [53] Yasmin Zafirah, Yu-Kai Lin, Gerry Andhikaputra, Fung-Chang Sung, Li-Wen Deng, **Yu-Chun Wang***. "Mortality and morbidity of chronic kidney disease associated with ambient environment in metropolitans in Taiwan." *Atmospheric Environment*, vol. 289. [SCI]
- [52] Ayushi Sharma, Gerry Andhikaputra, **Yu-Chun Wang***. "Heatwaves in South Asia: Characterization, Consequences on Human Health, and Adaptation Strategies." *Atmosphere*, vol. 13(5). [SCI]
- [51] Nicholas Adams, Meghnath Dhimal, Shifali Mathews, Veena Iyer, Raghu Murtugudde, Xin-Zhong Liang, Muhiuddin Haider, Raul Cruz-Cano, Dang Thi Anh Thu, Jamal Hisham Hashim, Chuansi Gao, **Yu-Chun Wang**, Amir Sapkota. "El Nino Southern Oscillation, monsoon anomaly, and childhood diarrheal disease morbidity in Nepal." *PNAS Nexus*, vol. 1(2). [SCI]
- [50] Jin-Wei Zhang, Afifah Diyah Nur'aini, **Yu-Chun Wang**, Nguyen Duy Hai, Dang Van Minh, Huan-Ping Chao. "Multiple pollutants removal by carbon sphere and layered double hydroxide composites: Adsorption behavior and mechanisms." *Journal of Environmental Chemical Engineering*, vol. 10. [SCI]

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- [49] Yu-Kai Lin, Yasmin Zafirah, Meng-Ting Ke, Gerry Andhikaputra, **Yu-Chun Wang***. "The effects of extreme temperatures on emergency room visits-a population-based analysis by age, sex, and comorbidity." *International Journal of Biometeorology*, vol. 65. [SCI]
- [48] Yasmin Zafirah, Yu-Kai Lin, Gerry Andhikaputra, Li-Wen Deng, Fung-Chang Sung, **Yu-Chun Wang***. "Mortality and morbidity of asthma and chronic obstructive pulmonary disease associated with ambient environment in metropolitans in Taiwan." *PLoS One*. [SCI]

- [47] **Yu-Chun Wang**, Fung-Chang Sung, Yi-Jhih Chen, Chia-Pei Cheng, Yu-Kai Lin*. "Effects of Extreme Temperatures, Fine Particles and Ozone on Hourly Ambulance Dispatches." *Science of the Total Environment*, vol. 765. [SCI]
- [46] Chu-Chih Chen*, Yin-Ru Wang, **Yu-Chun Wang***, Shiou-Li Lin, Cheng-Ta Chen, Mong-Ming Lu, Yue-Liang L. Guo. "Projection of future temperature extremes, related mortality, and adaptation due to climate and population changes in Taiwan (co-corresponding author)." *Science of the Total Environment*, vol. 760. [SCI]
- [45] Yu-Kai Lin, Chia-Pei Cheng, Ho Kim, **Yu-Chun Wang***. "Risk of ambulance services associated with ambient temperature, fine particulate and its constituents." *Scientific Reports*, vol. 11. [SCI]

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- [44] Yu-Kai Lin, Fung-Chang Sung, Yasushi Honda, Yi-Jhih Chen, **Yu-Chun Wang***. "Comparative Assessments of Mortality from and Morbidity of Circulatory Diseases in Association with Extreme Temperatures." *Science of the Total Environment*, vol. 723. [SCI]
- [43] Chien-Cheng Jung, Ying-Fang Hsia, Nai-Yun Hsu, **Yu-Chun Wang**, Huey-Jen Su*. "Cumulative effect of indoor temperature on cardiovascular disease-related emergency department visits among older adults in Taiwan." *Science of the Total Environment*, vol. 731. [SCI]
- [42] Marsha Savira Agatha Putri, Jr-Lin Lin, Lin-Han Chiang Hsieh, Yasmin Zafirah, Gerry Andhikaputra, **Yu-Chun Wang***. "Influencing factors analysis of Taiwan eutrophicated reservoirs." *Water*. [SCI]
- [41] **Yu-Chun Wang#**, Yu-Kai Lin#, Yi-Jhih Chen, Shih-Chan Hung, Yasmin Zafirah, Fung-Chang Sung*. "Ambulance Services Associated with Extreme Temperatures and Fine Particles in a Subtropical Island (#co-first author)." *Scientific Reports*, vol. 10. [SCI]

2019 (3)

- [40] Dwi Rosa Widiyana, **Yu-Chun Wang***, Sheng-Jie You, Ya-Fen Wang. "Source apportionment and health risk assessment of ambient volatile organic compounds in primary schools in Northern Taiwan." *International Journal of Environmental Science and Technology*. [SCI]
- [39] Yu-Kai Lin, Aussie Tahta Maharani, Fang-Tzu Chang, **Yu-Chun Wang***. "Mortality and Morbidity Associated With Ambient Temperatures in Taiwan." *Science of the Total Environment*, vol. 651. [SCI]
- [38] Chu-Chih Chen, Yin-Ru Wang, Yue-Liang L. Guo, **Yu-Chun Wang**, Mong-Ming Lu. "Short-term prediction of extremely hot days in summer due to climate change and ENSO and related attributable mortality." *Science of the Total Environment*, vol. 661. [SCI]

2018 (3)

- [37] Marsha Savira Agatha Putri, Chao-Hsun Lou, Mahmud Syai'in, Shang-Hsuan Ou, **Yu-Chun Wang***. "Long-Term River Water Quality Trends and Pollution Source Apportionment in Taiwan." *Water*, vol. 10(12). [SCI]
- [36] **Yu-Chun Wang**, Yi-Chun Chen, Chun-Yu Ko, Yue-Liang L. Guo, Fung-Chang Sung. "Pre-existing comorbidity modify emergency room visit for out-of-hospital cardiac arrest in association with ambient environments." *PLoS One*, vol. 13. [SCI]
- [35] Huan-Ping Chao, **Yu-Chun Wang**, Hai Nguyen Tran. "Removal of hexavalent chromium from groundwater by Mg/Al-layered double hydroxides using characteristics of in-situ synthesis." *Environmental Pollution*, vol. 243. [SCI]

2017 (1)

- [34] Yi-Chun Chen, Yi-Ling Huang, Wen-Chao Ho, **Yu-Chun Wang**, Yueh-Hsiu Yu. "Gender differences in effects of obesity and asthma on adolescent lung function: Results from a population-based study." *Journal of Asthma*. [SCI]

2016 (4)

- [33] **Yu-Chun Wang**, Yu-Kai Lin. "Mortality and Emergency Room Visits Associated with Ambient Particulate Matter Constituents in Metropolitan Taipei." *Science of the Total Environment*. [SCI]
- [32] **Yu-Chun Wang***, Cheng Lin, Yu-Kai Lin, Ya-Fen Wang, Wei-Hsiang Weng, Yi-Ming Kuo. "Characteristics and Determinants of Ambient Volatile Organic Compounds in Primary Schools." *Environmental Science: Processes & Impacts*. [SCI]
- [31] Ling-Ya Huang, **Yu-Chun Wang**, Chin-Ching Wu, Yi-Chun Chen, Yu-Li Huang. "Risk of Flood-Related Diseases of Eyes, Skin and Gastrointestinal Tract in Taiwan: A Retrospective Cohort Study." *PLoS One*, vol. 11(5). [SCI]
- [30] Yu-Kai Lin, Chuan-Fa Chen, Hsiao-Chi Yeh, **Yu-Chun Wang***. "Emergency Room Visits Associated with Particulate Concentration and Asian Dust Storms in Metropolitan Taipei." *Journal of Exposure Science and Environmental Epidemiology*. [SCI]

2015 (4)

- [29] S.-W. Yu, Y.-J. Chu, H.-L. Nguyen, Y.-P. Li, S.-J. Liu, C.-P. Hsieh, **Yu-Chun Wang***. "Occupational health risk assessment of municipal wastewater reclamation and reuse: A case study of the Futian Water Resource Recovery Center, Taichung (in Chinese)." *Journal of Advanced Engineering*, vol. 10(4).
- [28] **Yu-Chun Wang***, Yu-Kai Lin. "Mortality associated with particulate concentration and Asian dust storms in Metropolitan Taipei." *Atmospheric Environment*, vol. 117. [SCI]
- [27] **Yu-Chun Wang***, Yu-Kai Lin. "Temperature effects on outpatient visits of respiratory diseases, asthma, and chronic airway obstruction in Taiwan." *International Journal of Biometeorology*. [SCI]
- [26] Yu-Kai Lin, Sung-Wei Yu, Pay-Liam Lin, **Yu-Chun Wang***. "Association between ambient temperature and all-cause and cardiovascular disease mortality risks across regions of Taiwan (in Chinese)." *Taiwan Journal of Public Health*, vol. 34(1). [TSSCI]

2014 (2)

- [25] Chi-Feng Chen, Yu-Chieh Lien, Hui-Chung Yeh, **Yu-Chun Wang**. "Variation trends and correlation analysis of PM2.5 and PM10 in Taipei City, 2006-2012 (in Chinese)." *Advances in Environmental Protection*, vol. 4(4).
- [24] **Yu-Chun Wang**, Yu-Kai Lin. "Association between Temperature and Emergency Room Visits for Cardiorespiratory Diseases, Metabolic Syndrome-Related Diseases, and Accidents in Metropolitan Taipei." *PLoS One*. [SCI]

2013 (6)

- [23] Yu-Kai Lin, Chih-Kuan Chang, **Yu-Chun Wang***, Tsung-Jung Ho. "Acute and Prolonged Adverse Effects of Temperature on Mortality from Cardiovascular Diseases." *PLoS One*, vol. 8(12). [SCI]
- [22] Chuck C.-J. Cheng, Wen-Li Wang, Yao-Ting Sung, **Yu-Chun Wang**, Shih-Yu Su, Chung-Yi Li*. "Effect modification by parental education on the associations of birth order and gender with learning achievement in adolescents." *Child: Care, Health & Development*, vol. 39(6). [SSCI/SCI]
- [21] Yu-Kai Lin, **Yu-Chun Wang***, Pay-Liam Lin, Ming-Hsu Li, Tsung-Jung Ho. "Relationships between Cold-Temperature Indices and All Causes and Cardiopulmonary Morbidity and Mortality in A Subtropical Island." *Science of the Total Environment*, vol. 461-462. [SCI]
- [20] Yu-Kai Lin, Shang-Chun Chang, Shao Lin, Yi-Chun Chen, **Yu-Chun Wang***. "Comparing Ozone Metrics on Associations with Outpatient Visits for Respiratory Diseases in Taipei Metropolitan Area." *Environmental Pollution*, vol. 177. [SCI]
- [19] Yu-Kai Lin, **Yu-Chun Wang**, Tsung-Jung Ho, Chensheng (Alex) Lu. "Temperature Effects on Hospital Admissions for Kidney Morbidity in Taiwan." *Science of the Total Environment*, vol. 443. [SCI]
- [18] Yu-Kai Lin, Chih-Kuan Chang, Shang-Chun Chang, Pei-Shih Chen, Chuan-Sheng Lin, **Yu-Chun Wang***. "Temperature, Nitrogen Dioxide, Circulating Respiratory Viruses and Acute Upper Respiratory Infections among Children in Taipei, Taiwan." *Environmental Research*, vol. 120. [SCI]

2012 (5)

- [17] Ling-Ya Huang, **Yu-Chun Wang**, Chung-Ming Liu, Gen-Shuh Wang, Fung-Chang Sung*. "Association of temperature variation with cardiovascular and respiratory mortality among the elderly (in Chinese)." *Formosan Journal of Medicine*, vol. 16(5).
- [16] Yu-Kai Lin, Pay-Liam Lin, Ming-Hsu Li, Ling-Ya Huang, Fung-Chang Sung, **Yu-Chun Wang***. "International literature review of extreme-heat health early warning systems (in Chinese)." *Taiwan Journal of Public Health*, vol. 31(6). [TSSCI]
- [15] Chin-Cheng Chiang, Chien-Cheng Liao, Pei-Chun Chen, Yi-Yu Tsai, **Yu-Chun Wang***. "Population Study on Chronic and Acute Conjunctivitis Associated with Ambient Environment in Urban and Rural Areas." *Journal of Exposure Science and Environmental Epidemiology*, vol. 22(5). [SCI]
- [14] Yu-Kai Lin, Chih-Kuan Chang, Ming-Hsu Li, Yu-Chen Wu, **Yu-Chun Wang***. "High-temperature Indices Associated with Mortality and Outpatient Visits: Characterizing the Association with Elevated Temperature." *Science of the Total Environment*, vol. 427-428. [SCI]
- [13] **Yu-Chun Wang**, Yu-Cheng Lin, Chun-Yuh Chuang, Ming-Hsu Lee, Chang-Hung Chou, Chien-Hung Liao, Fung-Chang Sung. "Associating emergency room visits with first and prolonged extreme temperature event in Taiwan: a population-based cohort study." *Science of the Total Environment*, vol. 416. [SCI]

2011 (3)

- [12] Yu-Kai Lin, Tsung-Jung Ho, **Yu-Chun Wang***. "Mortality Risk Associated with Temperature and Prolonged Temperature

Extremes in Elderly Populations in Taiwan." *Environmental Research*, vol. 111(8). [SCI]

- [11] Ling-Ya Huang#, **Yu-Chun Wang**#, Chao-Min Liu, Trong-Neng Wu, Chang-Hung Chou, Fung-Chang Sung, Chin-Ching Wu*. "Water Outage Increases the Risk of Gastroenteritis and Eyes and Skin Diseases (#co-first author)." *BMC Public Health*, vol. 11. [SCI]
- [10] Yu-Kai Lin, Yu-Cheng Wu, Ling-Ya Huang, Chia-Ming Lin, Tsung-Neng Wu, Chang-Hung Chou, Fung-Chang Sung, **Yu-Chun Wang***. "Risk-trend analysis of cardiopulmonary mortality associated with extreme temperatures among populations aged >=65 in metropolitan Taiwan (in Chinese)." *Taiwan Journal of Public Health*, vol. 30. [TSSCI]

2010 (3)

- [9] Miao-Ching Chi, Yi-Lun Hsieh, **Yu-Chun Wang***. "Health risks of air pollution and respiratory diseases in Taiwan (in Chinese)." *Chang Gung Journal of Science*, vol. 13.
- [8] Ya-Ching Chou, Jiunn-Liang Wu, **Yu-Chun Wang**, Hsien Huang, Fung-Chang Sung, Chun-Yuh Chuang. "Modeling the impact of climate variability on diarrhea-associated diseases in Taiwan (1996-2007)." *Science of the Total Environment*, vol. 409. [SCI]
- [7] **Yu-Chun Wang**, Hung-Bin Chang, Hua-Hsin Chen, Chao-Min Liu, Chang-Hung Chou, Fung-Chang Sung. "Circulating viruses associated with severe complicated enterovirus infection in Taiwan: a multi-year analysis." *The Pediatric Infectious Disease Journal*, vol. 29. [SCI]

2009 (1)

- [6] Pei-Shih Chen*, Chien-Kun Lin, Feng-Ta Tsai, Chi-Yu Yeh, Chun-Yuh Yang, Chwan-Chuen King, Jiunn-Liang Wu, **Yu-Chun Wang**, Kuan-Hua Lin, Chung-Hua Lee, Ya-Sin Liao. "Quantification of Airborne Influenza and Avian Influenza Virus in a Wet Poultry Market using a Filter/Real-time qPCR Method." *Aerosol Science and Technology*, vol. 43. [SCI]

2007 (2)

- [5] Yu-Feng Lin, Chia-Yu Chen, Mong-Hsun Tsai, Ming-Shiang Wu, **Yu-Chun Wang**, Eric Y. Chuang, Jaw-Town Lin, Pan-Chyr Yang, Lu-Ping Chow. "Duodenal Ulcer-related Antigens from *Helicobacter pylori*: Immunoproteome and Protein Microarray Approaches." *Molecular & Cellular Proteomics*, vol. 6(6). [SCI]
- [4] **Yu-Chun Wang**, Chung-Yi Li, Jiun-Min Lin, Long-Teng Lee, Yue-Liang L. Guo, Fung-Chang Sung. "Impact of universal insurance on chronic pulmonary disease - a population cohort study in Taiwan." *Chest*, vol. 131(3). [SCI]

2006 (1)

- [3] **Yu-Chun Wang**, Fung-Chang Sung. "The impact of weather on cardiovascular, respiratory and gastroenterological health (in Chinese)." *Taiwan Journal of Public Health*, vol. 25(4). [TSSCI]

2003 (1)

- [2] Chih-Shan Li, **Yu-Chun Wang**. "Surface germicidal effects of ozone for microorganisms." *American Industrial Hygiene Association Journal*, vol. 64.

2002 (1)

- [1] Wen-Ya Chen, **Yu-Chun Wang**, Mu-Shui Kuo. "Determination of total mercury and methylmercury in human hair by graphite-furnace atomic absorption spectrophotometry." *Analytical Sciences*, vol. 18(3). [SCI]

6. Book Chapters

- [6] Wang, Y.-C. (2017). Impacts and adaptation of global climate change on population health. In F.-C. Sung (Ed.), *Climate Change and Health*, National Health Research Institutes Forum, Ch. 2. ISBN 9789860533958. (in Chinese)
- [5] Wang, Y.-C. (2017). Recommendations for a forward-looking policy on adaptation of health services to climate change. In F.-C. Sung (Ed.), *Climate Change and Health*, NHRI Forum, Ch. 6. (in Chinese)
- [4] Su, H.-J., Chen, K.-T., Chen, M.-H., Wang, Y.-C., & Wang, G.-S. (2017). Human Health. In C.-P. Tung (Ed.), *Taiwan Climate Change Science Report (2nd ed.)*, Ministry of Science and Technology, Ch. 6. (in Chinese)
- [3] Wang, Y.-C. (2016). Health impacts and adaptation of temperature under climate change. In *Climate Change and Health Adaptation*, Chang Jung Christian University, Ch. 2. (in Chinese)
- [2] Wang, Y.-C. et al. (2015). Climate change impacts and adaptation: Public health. In *Climate Change Environmental Education Training Materials*, EPA Environmental Professionals Training Institute, Ch. 11. ISBN 978-986-04-2670-0. (in Chinese)

- [1] Wang, Y.-C. (2009). Climate change and human health. In Environmental Health, China Medical University. ISBN 978-986-6778-19-3.
(in Chinese)

7. Selected Research Grants (Principal Investigator)

Principal investigator on 60 funded projects since 2007, totaling approximately **NT\$1.12 hundred million (~US\$3.6 million)**.

Representative grants:

Period	Project	Funder	Amount
2025-26	Belmont Forum CRA on Climate, Environment & Health - Early warning systems for climate-related health threats (AWARD-APR, 2/3)	NSTC	NT\$2,800,000
2024-25	Belmont Forum AWARD-APR - Early warning systems for climate-related health threats (1/3)	NSTC	NT\$2,800,000
2025-26	A framework for nature-based solutions for climate-change health adaptation in Taiwanese metropolitan areas	NSTC	NT\$1,099,000
2023-25	Health co-benefit assessment of replacing coal-fired power generation with bioenergy	NSTC	NT\$2,358,000
2020-23	Climate variability and diarrheal disease risk in the Asia-Pacific region (3-year)	NSTC/MOST	NT\$8,421,000
2019-22	Direct & indirect health impacts of extreme weather events on vulnerable populations (sub-project)	MOST	NT\$3,387,000
2017-19	Real-time health risk indicators for ambient fine particulate matter (PM2.5)	MOST	NT\$1,887,000
2014-16	Pilot extreme-temperature health warning system for metropolitan Taipei	MOST	NT\$1,020,000
2025-26	Taoyuan City climate change adaptation program (FY2026)	Taoyuan City EPB	NT\$4,200,000
2025-26	Green chemistry multi-faceted education promotion program	Ministry of Environment	NT\$7,875,000
2019-20	Green-chemistry public education and safe-substitution program	Taiwan EPA	NT\$11,500,000
2022-23	Health literacy program for functional assessment of older adults, Taipei City	Taipei City Health Dept.	NT\$6,664,954
2018	Study on local heat effects on the health of the Taiwanese population	Health Promotion Admin., MOHW	NT\$1,451,791
2019	Solomon Islands Dengue-Like Illness Early Warning System (SoSAFE)	Central Weather Bureau	NT\$630,000
2017-19	Climate change health-impact adaptation decision-making methods (3-year)	National Health Research Institutes	NT\$2,832,000
2019-22	Climate-change extreme-temperature health, hospitalization & medical risk scenario analysis	Cathay Financial Holdings	NT\$2,278,000
2025-26	Embedding University Social Responsibility into mid-to-long-term institutional planning	Ministry of Education	NT\$2,000,000

8. Professional Service

- Review Board member, Sustainable Development Division, National Science and Technology Council (NSTC) (2025-present)
- Review Board member, Environmental Engineering Program, Dept. of Engineering & Technologies, NSTC (2021-2024)
- Expert Advisory Committee, National Science and Technology Center for Disaster Reduction (2020-2022)
- EIA Review Committee member, Taoyuan City Environmental Protection Bureau (2012-present)
- EIA Review Committee member, Hsinchu County Environmental Protection Bureau (2026-present)
- Member, Air Pollution Control Fund Committee, Ministry of Environment (2026-present)
- Member, Water Pollution Control Fund Management Board, Taoyuan City (2026-present)
- EIA Follow-up Review Panel member, Environmental Protection Administration (2009-2020)
- Municipal Consultant, Taoyuan City Government (2023-present)
- Committee member, Future Earth ROC National Committee (6th term), Academia Sinica (2025-2027)
- Committee member, Safety & Health Protection Committee, Ministry of the Interior (to 2027)
- Committee member (1st term), R&D Advisory Committee, National Environmental Research Academy
- Director (6th term), Taiwan Green University Union
- Expert Advisory Committee member (8th term), Disaster Prevention & Response, New Taipei City Government
- Journal reviewer: Environmental Research, Science of the Total Environment, Scientific Reports, BMC Public Health, Atmospheric Environment

Professional Societies

International Society for Environmental Epidemiology (ISEE); Taiwan Public Health Association; Taiwan Epidemiology Association; Chinese Institute of Environmental Engineering; Taiwan Association for Aerosol Research.

9. Honors, Awards & Invited Talks

University Research Awards

- Distinguished Research Award, CYCU (AY2023, Industry-Academia category)
- Outstanding Research Contribution Award, CYCU (AY2023)
- Academic Research Award recipient, CYCU (AY2021, AY2024)

Teaching & Industry-Academia Awards

- Outstanding Teaching Award, College of Engineering, CYCU (2016)
- Excellent Mentor / Holistic Care Award, CYCU (multiple years)
- Excellent / Outstanding Industry-Academia Cooperation Teacher, CYCU (2019, 2021, 2022, 2025; NT\$300k+ tier)
- Patent, Technology-Transfer & Industry Excellence Award, CYCU (2025)

International Invited / Keynote Talks

- Keynote Speaker, Universitas Islam Lamongan, Indonesia (2022)
- Keynote Speaker, AWARE - Awareness Against Health Threats of Climate Change, UIN Maulana Malik Ibrahim, Indonesia (2025)
- Speaker, ICDI Climate Leadership Program - 'Climate Change and Public Health' thematic session (2023)
- Invited Speaker, International Climate Change Adaptation Forum

Professional Certifications

- ISO 14064-1:2018 Greenhouse Gas Inventory - Lead Verifier (AES Training Academy, 2023)
- ISO 14067:2018 Product Carbon Footprint - Lead Verifier (AES Training Academy, 2024)
- ISO 14068-1:2023 Carbon Neutrality (Transition to Net Zero) - Lead Verifier (AFNOR Asia, 2024)
- Energy-Efficiency Hotspot Analysis Workshop, Foundation (ISO 50001 Energy Management) - ITRI College (2026)
- iPAS - Net-Zero Carbon Emission Planning Administrator, Associate level (MOEA, 2024)

- Level 1 Social Value Associate - Social Value International (2026)

10. Graduate Thesis Supervision

Supervised 65 M.S. theses (incl. current students) in environmental epidemiology, air-pollution health assessment, climate-sensitive infectious disease, and water/environmental sustainability.

Grad./Status	Student	Thesis Title
current	游皓翔	Association between urban green space and outpatient/emergency-room visits for cardiorespiratory diseases in southern Taiwan
current	李昊	Assessing the risks of meteorological-factor-related zoonotic diseases under climate change in Taiwan
current	周幸榮	Spatial association of urban green infrastructure and thermal exposure with emergency medical service events in Kaohsiung City
current	羅唯	Analysis of Taiwanese corporate sustainability reports: A case study of water resources
current	席莉綸	Comprehensive assessment of terrestrial and marine dioxin (PCDD/Fs) emissions in East and Southeast Asia: source apportionment and network analysis from multi-year field data
2025.06	彭婕妤	From awareness to action: plastic-pollution environmental education among upper-grade elementary students
2025.06	許瀚升	Hedonic-price analysis of Taoyuan Airport aircraft noise and compensation payments on real-estate transaction prices
2025.06	詹動凱	Optimization of reclaimed-water production processes from an environmental-impact perspective
2024.06	呂冠醇	Parameter adjustment of the water-pollution emission account in green national income accounting
2024.06	黃小軒	Simulating biomass-pellet substitution for coal-fired units: human health-risk impacts of hazardous air pollutants - the Hsinta Power Plant
2024.06	藍徽因	Simulating biomass-pellet substitution for coal-fired units: human health-risk impacts of hazardous air pollutants - the Taichung Power Plant
2024.06	洪伯昱	Environmental-benefit analysis of the Taipei public bicycle system (YouBike 2.0)
2024.06	楊承諺	Impacts of electric-vehicle policy on ambient air quality and public health in metropolitan Taiwan
2024.06	黃尹津	Simulating biomass-pellet substitution for coal-fired units: human health-risk impacts of hazardous air pollutants - the Linkou Power Plant
2024.06	李姿蓉	Life-cycle assessment of the environmental benefits of solid recovered fuel replacing fossil fuel: cement kilns
2024.06	潘佳昇	Empirical study of solid recovered fuel made from textile-industry waste for industrial boilers
2024.07	王悠絲	Health impacts of the ambient environment and the effectiveness of policy interventions in Ahmedabad, India
2024.08	王泰明	Effects of diesel oxidation catalysts and particulate oxidation catalysts on conventional and toxic pollutant emissions from heavy-duty diesel engines
2024.01	曾莉庭	Necessity and feasible options for establishing a protected area: the Datan algal-reef section, Taoyuan
2024.01	翁維祥	Differences in land-use-based PM2.5 prediction applied to health risk assessment in Tainan and Kaohsiung: respiratory diseases
2024.01	詹坤旺	Feasibility of circular-economy reuse of post-investment-casting (dewaxing) waste as a coating agent
2023.06	蕭璽祐	Short- and long-term health risks of population exposure to ambient PM2.5 in Tainan and Kaohsiung
2022.06	江品莫	Spatiotemporal patterns of dengue incidence in Central Java, Indonesia
2022.06	顏琳	Integrating spatial information to evaluate micro-sensor-assisted air-quality analysis: the Guanyin Industrial Park
2022.06	林尚農	Association between the Northwest Pacific monsoon index and summer temperatures in Taipei and Kaohsiung
2021.06	鄧力文	Effects of the ambient environment on suicide and mental-disorder medical visits in Taiwan
2021.06	陳建宏	Water quality in Taiwan's Class-I fishing-port waters
2021.06	王楷瑞	Effects of extreme weather events on specific childhood diarrheal diseases in Taiwan
2021.06	張家維	Applying artificial neural networks to predict PM2.5 and ozone concentrations around power plants
2021.06	黃弘曜	Projection of reservoir water-quantity and water-quality changes under climate-change scenarios: Shimen, Deji and Zengwen Reservoirs
2021.06	劉佳宜	Differences in applying the Taichung PM2.5 monitoring system to health risk assessment: respiratory infectious diseases
2021.01	葉峯男	Health risk and disability-adjusted life years among PM2.5-sensitive populations in Taiwan
2021.01	陳念純	Mortality-risk analysis of ambient temperature and circulatory, cerebrovascular and coronary heart diseases in Taipei, Taichung and Kaohsiung
2020.06	王思敏	Association of extreme temperature and PM2.5 with mortality and outpatient/emergency visits in metropolitan

Grad./Status	Student	Thesis Title
		Taiwan
2020.06	艾以曼	Removal of lead, copper, cadmium, methylene blue, phenol and toluene from aqueous solution using titanate-nanotube/carbon-sphere composites
2020.06	林昱翰	Association analysis between the ambient environment and dengue-like-illness cases in the Solomon Islands
2020.06	林旻君	Health-risk and attributable-risk analysis of extreme temperatures for specific occupational groups
2020.06	莊靜宜	Predicting Laojie River water quality using support vector regression
2019.06	董安然	Health-risk analysis of long-term exposure to ambient PM2.5: Taoyuan, Taichung and Kaohsiung
2019.06	陳奕志	Association analysis of extreme temperature, air pollution and emergency medical services in Taiwan
2019.06	黃佑安	Years-of-life-lost analysis of extreme-temperature-related circulatory diseases in Taiwan's six municipalities
2019.06	林纖	Association of sleep quality, fatigue, blood indicators, heart rate and work patterns among workers
2019.06	鄭加珮	Association of PM2.5 concentration and constituents with emergency medical services in the Kaohsiung area
2019.06	謝佳玲	Water-quality association between Baoshan Reservoir and its inflow streams
2019.01	袁佑偉	Association between synoptic weather patterns and PM2.5 concentrations: Linkou, Mailiao and Taixi stations
2019.01	卜維拉	Causal analysis of eutrophication in Taiwan's reservoirs
2019.01	歐陽希	Spatiotemporal analysis of dengue incidence: Tainan and Kaohsiung
2018.06	謝東憲	Health risk assessment of wastewater-treatment workers: the Tamsui River sewerage collection system
2018.06	柯孟廷	Effects of extreme temperatures on cardiovascular, renal and mental-disorder medical visits in Taiwan
2018.01	黎俊紳	Comprehensive survey of health quality among high-tech workers
2017.06	張靖亞	Environmental-benefit assessment of urban roadway pavement reconstruction
2017.06	張芳慈	Vulnerability and modifying factors of extreme-high-temperature health impacts in Taiwan
2017.06	林龍井	Fire-safety management issues in industrial parks: the Zhongli Industrial Park
2017.06	樓晁瑄	Assessment of municipal wastewater treatment and river water-quality management in Taiwan
2017.06	林穎治	Effectiveness of and risk-communication recommendations for the extreme-high-temperature warning system in metropolitan Taipei
2016.06	游雅婷	Spatial PM2.5 concentration from mobile sources and population health-risk assessment in northern Taiwan
2015.06	李忠縉	Variation of temperature, rainfall and air-pollutant concentrations in Taiwan under El Nino/La Nina conditions
2014.06	郭韋翔	Characterization of aerosols in Taipei and Kaohsiung during specific periods, 2006-2010
退學	施宛如	Simulation of VOC emissions from stationary sources in northern Kaohsiung and associated health risk assessment
2013.06	阮氏萍明	Association analysis between meteorology and dengue epidemics in Vietnam
2012.06	黃冠智	Potential health-risk assessment of heavy metals in tap water in the Taoyuan area
2012.06	俞松維	Simulation of lead emissions from stationary sources in the Taoyuan area and associated health risk assessment
2012.01	翁嘯晃	VOC detection, ozone-formation potential, and respiratory-health survey of school-age children in the Taoyuan area
2011.06	吳祐誠	Association between meteorological temperature indices and mortality and medical visits in Taiwan
9906	陳則儒	Prevalence and risk analysis of pneumonia and influenza in northern Taiwan

Compiled from CYCU faculty e-portfolio and Web of Science (as of June 2026). Indexing (SCI/SSCI/TSSCI) per institutional records; * corresponding author, # co-first author. Bibliometrics (1,598 total citations, h-index 23, 21.89 cites/paper) from the Web of Science author profile (ResearcherID: PTG-0577-2026); the cites/paper denominator is the WoS Core Collection count (73). "72 SCI/SSCI-indexed" comprises 68 SCI-class (65 SCI, 2 SCIE, 1 SSCI/SCI) plus 4 TSSCI.