Chu-Chih Chen, PhD
Investigator
+886-37-246166 ext. 36186
+886-37-586467
ccchen@nhri.org.tw

Education

- 1983
  B.S. in Applied Mathematics
  National Tsing-Hua University
- 1988
  M.S. in Mathematical Statistics
  University of North Carolina— Chapel Hill, USA
- 1993
  University of North Carolina— Chapel Hill, USA

Professional Experiences

- 2014/7-present
  Division of Biostatistics and Bioinformatics, Institute of Population Health Sciences, National Health Research Institutes, Taiwan
  Investigator
- 2006/8-2014/6
  Division of Biostatistics and Bioinformatics, Institute of Population Health Sciences, National Health Research Institutes, Taiwan
  Associate Investigator
- 2010/9-present
  Institute of Occupational Medicine and Industrial Hygiene, College of Public Health, National Taiwan University
  Adjunct Associate Professor
- 2008/9-2010/8
  Institute of Occupational Medicine and Industrial Hygiene, College of Public Health, National Taiwan University, Taiwan
  Joint Associate Professor
- 2002/8-2006/7
  Department of Mathematics, Tamkang University, Taiwan
  Professor
- 1993/9-2002/7
  Department of Mathematics, Tamkang University, Taiwan
  Associate Professor

Research Interests

Environmental health risk assessment, exposure assessment, biostatistics, epidemiology, climate change

Research Activities & Accomplishment

Over 30 SCI papers (since 1997) in statistics, biostatistics, environmental health risk assessment, exposure assessment, and epidemiology.

Associate Editor (2014–present): *Stochastic Environmental Research and Risk Assessment*

Statistical Editor (2011-2014): *Asia Pacific Journal of Clinical Nutrition*

National Health Research Institutes-Institutional Repository: http://211.76.174.198/handle/3990099045/104

Selected Publications

Tsai HJ, Wu CF, Tsai YC, Huang PC, Chen ML, Wang SL, Chen BH, **Chen CC**, Wu WC, Hsu PS, Hsiung CA, Wu MT. Intake of phthalate-tainted foods and serum thyroid hormones in Taiwanese children and adolescents." Scientific Report. 2016 Jul 29;6:30589. doi: 10.1038/srep30589.

Wu CF, Shen FH, Li YR, Tsao TM, Tsai MT, **Chen CC**, Hwang JS, Hsu SHJ, Chao H, Chuang KJ, Chou CCK, Wang YN, Ho CC, Su TC. Association of short-term exposure to fine particulate matter and nitrogen dioxide with acute cardiovascular effects. *Science of the Total Environment* 2016; Accepted.

Tsai YA, Lin CL, Hou JW, Huang PC, Lee MC, Chen BH, Wu MT, **Chen CC**, Wang SL, Lee CC, Hsiung CA, Chen ML. Effects of high di(2-ethylhexyl) phthalate (DEHP) exposure due to tainted food intake on pre-pubertal growth characteristics in a Taiwanese population. *Environmental Research* 2016; 149: 197–205.

Chen CC*, Wang SL, Wu MT, Wang YH, Huang PC, Chen BH, Sun CW, Ho CK, Shih YC, Shiu MN, Pan WH, Chen ML, Lee CC, Hsiung CA*. Exposure estimation for risk assessment of the phthalate incident in Taiwan. *PLoS ONE* 2016;11(3):e0151070.

Hou JW, Lin CL, Tsai YA, Chang CH, Liao KW, Yu CJ, Yang W, Lee MJ, Huang PC, Sun CW, Wang YH, Lin FR, Wu WC, Lee MC, Pan WH, Chen BH, Wu MT, **Chen CC**, Wang SL, Lee CC, Hsiung CA, Chen ML. The effects of phthalate and nonylphenol exposure on body size and secondary sexual haracteristics during puberty. *International Journal of Hygiene and Environmental Health* 2015;218(7):603–615.

Tsai HJ, Lin SF, **Chen CC**, Chen TY, Su WC, Hwang WL, Lin JC, Chiou TJ, Kao WY, Chiu CF, Chang YF, Chang JS, Chang MC, Su IJ. Long term results of a phase II trial with front-line concurrent chemoradiotherapy followed by consolidation chemotherapy for localized nasal natural killer/T-cell lymphoma. *European Journal of Haematology* 2015; 94(2):130–137.

Wu CF, Lin HI, Ho CC, Yang TH, **Chen CC**, Chan CC. Modeling horizontal and vertical variation in intraurban exposure to $PM_{2.5}$ concentrations and compositions. *Environmental Research* 2014; 133c:96–102.

Chen CC*, Wang YH. Estimation of the exposure of the U.K. population to

	the bovine spongiform encephalopathy agent through dietary intake during the period 1980 to 1996. *PLoS ONE* 2014; 9(4): e94020. **Chen CC***, Chen J J. Benchmark dose calculation for ordered categorical responses. *Risk Analysis* 2014; 34(8):1435–1447. **Chen CC***, Wang YH, Wu KY*. Consumption of bovine spongiform encephalopathy contaminated beef and variant Creutzfeldt-Jakob incidence. *Risk Analysis* 2013; 33:1958–1968. **Chen CC***, Wu CF*, Yu HL, Chan CC, Cheng TJ. Spatiotemporal modeling with temporal-invariant variogram subgroups to estimate fine particulate matter PM2.5 concentrations. *Atmospheric Environment* 2012; 54:1–8. Chen BY, Chan CC, Lee CT, Huang WC, Jhou JC, Han YY, **Chen CC**, Cheng TJ, Guo YL. Effects of ambient air pollution on airway inflammatory in schoolchildren. *American Journal of Epidemiology*. 2012; 175(8):764–774. Wang WS, Wahlqvist ML, Hsu CC, Chang HY, Chang WC, **Chen CC***. Age and gender attribution of obesity-related metabolic disorders for six-year all-cause and cause-specific mortality in Taiwanese. *BMC Public Health* 2012; 12:111. **Chen CC**, Sen PK, Wu KY. Robust permutation tests for homogeneity of fingerprint patterns of dioxin congener profiles. *Environmetrics* 2012; 23: 285–294. **Chen CC***, Shih MC, Wu KY. Environmental exposure reconstruction using repeated metabolite measurements in urine- An example with inhalation of trichloroethylene. *Stochastic Environmental Research and Risk Assessment* 2012; 26(1):21–31. **Chen CC***, Wu KY, Chang-Chien GP. Point source identification using a simple permutation test: a case study of elevated PCDD/F levels in ambient air and soil and their relation to the distance to a local municipal solid waste incinerator. *Stochastic Environmental Research and Risk Assessment* 2011; 25:929–937. Wang IJ, **Chen CC**†, Chan CC, Chen PC, Leonardi G, Wu KY. A hierarchical Bayesian approach for risk assessment of melamine in infant formula based on cases of related nephrolithiasis in children. *Food Additives & Contaminants, Part A- Chemistry, Analysis, Control, Exposure & Risk Assessment* 2011; 28(4):384–395. (†: Equal contribution with 1st author). Chen BY, Chao HJ, Chan CC, Lee CT, Wu HP, Cheng TJ, **Chen CC**, Guo YL Effects of fine particulates and fungal spores on lung function in schoolchildren. *Pediatrics* 2011; 127(3):E690–E698. Huang YF, Wu KY, Liou SH, Uang SN, **Chen CC**, Shih WC, Lee SC, Huang CCJ, Chen ML. Biological monitoring for occupational acrylamide exposure from acrylamide production workers. *International Archives of Occupational and Environmental Health* 2011; 84:303–313. Wahlqvist ML, Chang HY, **Chen CC**, Hsu CC, Chang WC, Wang WS, Hsiung

CA. Is impaired energy regulation the core of the metabolic syndrome in various ethnic groups of the USA and Taiwan? *BMC Endocrine Disorders*, 2010; 10:11.

Chen CC*, Shih MC, Wu KY. Exposure estimation using repeated blood concentration measurements. *Stochastic Environmental Research and Risk Assessment* 2010; 24(3):445–454.

Chen CC*, Wang WS**,** Chang HY, Liu JS, Chen YJ. Heterogeneity of body mass index, waist circumference, and waist-hip ratio in predicting obesity-related metabolic disorders for Taiwanese aged 35-64. *Clinical Nutrition* 2009; 28:543–548.

Chen CC*, Chuang CL, Wu KY, Chan CC. Sampling strategies for occupational exposure assessment under generalized linear model. *Annals of Occupational Hygiene* 2009; 53(5):509–521.

Chen CC*, Shih MC, Wu KY, Sen PK. Exterior exposure estimation using a one-compartment toxicokinetic model with blood sample measurements. *Journal of Mathematical Biology* 2008; 56(5):611–633.

Chen CC*. Extended rank analysis of covariance adjusting for local correlations. *Computational Statistics and Data Analysis* 2008; 52(3): 1399–1412.

Chen CC*, Wu KY, Balakrishnan N. Two-sample scale tests for comparison of metabolic rates for styrene in previously exposed and unexposed groups. *Statistics in Medicine* 2004; 23:591–599.

Chen CC, Wu KY, Chang WMJ. A statistical assessment on the stochastic relationship between biological measurement and environmental exposure. *Stochastic Environmental Research and Risk Assessment* 2004; 18:377–385.

Chen CC*, Cheng MC, Wu KY, Cheng TJ, Chang WMJ. Statistical analysis and application of physiologically-based pharmacokinetic models- An example with VCM exposure. *Journal of the Chinese Statistical Association* 2001; 39(4):363–377. (In Chinese)

Chen CC*. Rank analysis of covariance as a more efficient matched analysis considering trend information. *Biometrical Journal* 2001; 43(7): 895–907.

Chen CC*. Rank estimating equations for random effects models. *Statistics and Probability Letters*, 2001; 54:5–12.

Chen CC*, Hsieh F. Rank estimating equations for partial spline models with monotonicity. *Statistica Sinica* 1999; 9(1):199–210.

Chen CC*. Rank transformations when covariables are measured with Error or mismodelled. *Communications in Statistics-Theory and Methods* 26(12) 1997; 2967–2982.

Patent