

Yi-Chen (Evelyn) Wu

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QUALIFICATIONS

- Knowledge of the theory of statistical methods including: analyses for categorical data, regressions, ANOVA, experimental design, clinical trials, genetic data, correlated/longitudinal data, survival data, nonparametric data, cluster data, epidemiology data, and factor analysis.
- Experienced statistical programmer of R, Splus, SAS, SPSS and other statistical software.
- Solid background in public health, health care/ health services and outcomes research.
- Effective team player with the ability to work independently in academic, industry, government and organizational settings.
- Good communication skills, including technical writing and interpreting statistical results for non-statisticians.

TECHNICAL SKILLS

- **Statistical Package Software:** Proficient in R (advanced graphing, RMySQL, Sweave), S-Plus, SAS (MACRO, IML & GRAPH), SPSS, GAP (in Lisp-STAT), Data Desk
- **Genetic Software:** Solar, and MERLIN used for linkage analysis; GRR used to detect errors in data files
- **Computing Platforms:** Linux, UNIX, and Windows
- **Microsoft:** Excellent skills with Word, Excel, PowerPoint, FrontPage, and Access.

EDUCATION

Master of Science, Biostatistics, 2005

Advisor: Prof. Michael Li

University of Minnesota, School of Public Health, Division of Biostatistics

Master Project:

Exploring Positional Candidate Genes: Linkage Conditional on SNP Genotypes

Presented at Joint Statistical Meetings (JSM) 2005

After an initial genome-scan that finds significant linkage signal, the next step is to localize the disease gene. The availability of extensive sequence annotation data makes it possible to identify potential candidate genes and SNPs to test for direct association, thus bypass the time-consuming fine-mapping and positional cloning steps. It is very attractive to combine the initial microsatellite data from a genome-scan with the SNP data in candidate genes in the analysis. There are two possible strategies: 1) use the SNPs as additional markers and redo the linkage analysis; 2) use the SNPs (especially ones that were found to be associated with the disease) as covariates in the linkage analysis. The properties of these methods are not very

well understood. Studies have found mixed results that are often difficult to interpret, especially when there are likely more than one disease mutations in the region. We conducted simulation studies to investigate the properties of this procedure, under various disease models and study designs, in particular when multiple SNPs within a gene may contribute to the disease.

Master of Science, Health Policy and Management, 2001

National Taiwan University (NTU), School of Public Health, Institute of Health Policy and Management

Master Thesis:

Long Term Care Service Needs among Family Caregivers NTU, Taipei, June 2001.

We investigated the long term care service needs among the functionally impaired elders' primary family caregivers and also found the needs were affected by specific factors in different category of service (medical, social, personal care, and community services). The participants were elders older than 65 living in Taipei city in 1997, and their family caregivers. There were 483 pairs in this study. Ordinal logistic regressions were performed in the analyses.

Honorary Member of The Phi Tau Phi Scholastic Honor Society (an honor awarded to graduates with outstanding performances in Philosophy, Technology, and Physiology)

Bachelor of Science, Public Health, 1999

National Taiwan University (NTU), School of Public Health, Department of Public Health

EXPERIENCE

Biostatistician II, Department of Biostatistics, Vanderbilt University School of Medicine
2005-Present

- Provided surgical research assistance with experimental design, study design, data analysis, data display, statistical computing, and interpretation of results
- Provided any statistical critique and explanation of the statistical methods and results sections

Teaching Assistant for Graduate-Level Courses, University of Minnesota, 2003-2005

➤ **Biostatistics I**

➤ **Intro to SAS Programming**

➤ **Biostatistics: ANOVA and Design**

- Conducted computer laboratory sessions using SAS to graduate students on Windows and UNIX platform.
- Assisted students with statistical analyses and basic data management.
- Provided individual help sessions to aid students with programming assignments.
- Experience included class preparation, lecturing, and grading.

Research Assistant, Boen Biostatistics Consulting Laboratory (BCL), University of Minnesota,

2003-2004

- Performed statistical analysis and interpreted the results.
- Graphed data and tabulated analysis results
- Collaborating with member of research team to control the quality of data entry for project database.

Research Assistant, Institute of Statistical Science, Academia Sinica, Taiwan, 2002-2003

- Subgrouped schizophrenic patients based on symptoms assessed on admission.
- Processed the longitudinal schizophrenia SNPs data to further validate previously suggested gene loci.
- Used the LISP-STAT software, the categorical Generalized Association Plots (GAP), and R to investigate the SNPs data.

Research Assistant and Intern, Institute of Health Policy and Management at NTU, and NTU Hospital 1998-2001

- Assessed the needs in the national long-term care system in National Census Project.
- Conducted literature reviews, designed survey questionnaire, wrote guide manuscript, interviewed participants, performed statistical analyses, graphed data and tabulated analysis results.
- Wrote integrated interdisciplinary communications reports involving nursing, occupational therapy, physical therapy, physician, social worker, and public health professionals.

Intern, Center for Disease Control Taiwan, R.O.C., 1998

- Wrote health education manuscripts in preventing influenza.
- Assisted the epidemic quarantine at National Taipei Airport and JiLong Harbor.

PROFESSIONAL TRAINING

Eastern North American Region (ENAR) 2006

Course: Joint Modeling of Repeated Measurements and Event Time Data

Joint Statistical Meetings (JSM) 2006

Course: Analysis of Clinical Trials

Summer Institute of Biostatistical Science 2002, held by National Health Research Institutes

Course: Introduction to Stochastic Processes in Medicine and Health

Course: Statistics and Genomics

COURSES in STATISTICS and RELATED FIELDS

Theory of statistics I and II	Methods for Correlated Data	Statistics in Genetics
Regression Analysis and diagnoses	Survival Analysis	Clinical Trials
ANOVA and Experimental Design	Advanced Statistical Computing	Epidemiology
Categorical Data Analysis	Database Computer Applications	

COURSES in BIOLOGY and RELATED FIELDS

Anatomy	General Zoology	Plant Genomics
Physiology	General Botany	
Microbiology and Immunology	Computational Methods in Genetic Epidemiology	