

CONTACT

INFORMATION

Medical University of South Carolina
 Biostatistics, Bioinformatics & Epidemiology
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CITIZENSHIP

USA

EDUCATION

B.A. in Psychology

May 1995

- Belmont University, Nashville TN USA
- Double Minor Emphasis in Math and German

M.S. in Biostatistics

Dec 2006

- Medical University of South Carolina, Charleston SC USA
- Thesis: Multiple Imputation Goodness of Fit with a Concordance Correlation
- Advisor: Barbara C. Tilley, Ph.D.

Ph.D. in Biostatistics

Aug 2009

- Medical University of South Carolina, Charleston SC USA
- Dissertation: Beta Regression: Modeling Extremely Skewed Distributions within a Generalized Linear Framework
- Advisor: Barbara C. Tilley, Ph.D.

PROFESSIONAL
EXPERIENCE**Database Analyst**

1995-2004

Vanderbilt University Medical Center, *Rheumatology / Immunology*, Nashville TN USA

- Developed database application used in randomized clinical trial ACTA: Arthrotec Compared To Acetaminophen
- Developed and implemented database application used in QUEST-RA, an international cross-sectional study of Rheumatoid arthritis health outcomes
- Developed and implemented database application used in monitoring health outcomes of longitudinal cohort of individuals with rheumatic disease
- Performed statistical analysis and assisted in abstract and manuscript preparation and publication

Research Assistant

2004-2006

Medical University of South Carolina, *Biostatistics Bioinformatics and Epidemiology*, Charleston SC USA

- Programmed and compiled data consistency checks for two NIH Exploratory Trials in Parkinsons Disease (NET-PD) Phase II clinical trials [Futility Studies I and II (FS1 and FS-Too)]
- Assisted with safety analysis and reporting for NET-PD Phase III clinical trial [Large Study 1 (LS1)]
- Developed and executed analysis plans for manuscripts in collaboration with NET-PD investigators

ACADEMIC
EXPERIENCE

Teaching Assistant

- Fundamentals of Statistical and Epidemiologic Collaboration Fall 2006
- Graded Critical Reviews of Presented Analysis Plans
 - Mentored Students on Class Project: Development of Analysis Plan for Collaborative Investigator
 - Course Instructor: Robert F. Woolson, Ph.D.
- Design and Conduct of Clinical Trials Summer 2007
- Developed and Gave Three Class Lectures on Missing Data, Randomization and Blinding, and Data Management
 - Mentored Students on Class Project: Development of a Clinical Trial Protocol
 - Graded Homework and Projects
 - Maintained Class Website
 - Course Instructor: Yuko Y. Palesch, Ph.D.
- Design and Conduct of Clinical Trials Teaching Assistant Summer 2008
- Developed and Gave Four Class Lectures on Clinical Trial Overview, Missing Data, Randomization and Blinding, and Data Management
 - Mentored Students on Class Project: Development of a Clinical Trial Protocol
 - Assisted in the Development of In-class Group Discussion Exercises
 - Maintained Class Website
 - Course Instructor: Valerie L. Durkalski, Ph.D.

Lecturer

- Foundations of Epidemiology (Epidemiology I) Fall 2007
- “Overview of the Design and Conduct of Clinical Trials”
 - Course Instructor: Joyce S. Nicholas, Ph.D.
- MUSC Presidential Scholars Interdisciplinary Program Spring 2008
- “Examining the United States National Health Care Policy”
 - Program Director: Valerie T. West, Ed.D.
- Foundations of Epidemiology (Epidemiology I) Fall 2008
- “Overview of the Design and Conduct of Clinical Trials”
 - Course Instructor: Joyce S. Nicholas, Ph.D.

ACADEMIC AND
PROFESSIONAL
HONORS

- Alpha Chi National Honor Society (*President*, 1994-1995) 1993-1995
- Psi Chi National Psychology Honor Society (*President*, 1994-1995) 1993-1995
- Belmont Student Government Legislative Council (*Chair*, 1993-1995) 1992-1995
- American Statistical Association 2005-
- MUSC Presidential Scholar (*competitive*) 2006-2007
- MUSC Presidential Scholar Fellow (*competitive*) 2007-2008
- Trainee - Biostatistics Training with Application to Neuroscience (BTAN) 2006-
- NINDS/NIH 1 T32 NS48007-01A1 PI: Yuko Y. Palesch, Ph.D. (*competitive*)
- Eastern North American Region (ENAR) of International Biometric Society 2008-
- MD Anderson Bayesian Biostatistics Conference Travel Award (*competitive*) Jan-2009

- Pincus T, **Swearingen C**, and Wolfe F. "Toward a multidimensional Health Assessment Questionnaire (MDHAQ): assessment of advanced activities of daily living and psychological status in the patient-friendly health assessment questionnaire format." *Arthritis Rheum* **42**, 2220–2230 (1999). URL [http://dx.doi.org/10.1002/1529-0131\(199910\)42:10%3C2220::AID-ANR26%3E3.0.CO;2-5](http://dx.doi.org/10.1002/1529-0131(199910)42:10%3C2220::AID-ANR26%3E3.0.CO;2-5).
- Pincus T, **Swearingen C**, Cummins P, and Callahan LF. "Preference for nonsteroidal antiinflammatory drugs versus acetaminophen and concomitant use of both types of drugs in patients with osteoarthritis." *J Rheumatol* **27**, 1020–1027 (2000).
- Yazici Y, Sokka T, Kautiainen H, **Swearingen C**, Kulman I, and Pincus T. "Long term safety of methotrexate in routine clinical care: discontinuation is unusual and rarely the result of laboratory abnormalities." *Ann Rheum Dis* **64**, 207–211 (2005). URL <http://dx.doi.org/10.1136/ard.2004.023408>.
- Pincus T, Yazici Y, Bergman M, **Swearingen C**, and Harrington T. "A proposed approach to recognise "near-remission" quantitatively without formal joint counts or laboratory tests: a patient self-report questionnaire routine assessment of patient index data (RAPID) score as a guide to a "continuous quality improvement" strategy." *Clin Exp Rheumatol* **24**, S–60–5 (2006). URL <http://www.clinexprheumatol.org/pubmed/find-pii.asp?pii=17083765>.
- Sokka T, Kautiainen H, Toloza S, Mäkinen H, Verstappen SM, Lund Hetland M, Naranjo A, Baecklund E, Herborn G, Rau R, Cazzato M, Gossec L, Skakic V, Gogus F, Sierakowski S, Bresnihan B, Taylor P, McClinton C, Pincus T, and **QUEST-RA Group**. "QUEST-RA: quantitative clinical assessment of patients with rheumatoid arthritis seen in standard rheumatology care in 15 countries." *Ann Rheum Dis* **66**, 1491–1496 (2007). URL <http://dx.doi.org/10.1136/ard.2006.069252>.
- Sokka T, Hkkinen A, Kautiainen H, Maillefert JF, Toloza S, Mrk Hansen T, Calvo-Alen J, Oding R, Liveborn M, Huisman M, Alten R, Pohl C, Cutolo M, Immonen K, Woolf A, Murphy E, Sheehy C, Quirke E, Celik S, Yazici Y, Tlustochowicz W, Kapolka D, Skakic V, Rojkovich B, Miller R, Stropuviene S, Anderson D, Drosos AA, Lazovskis J, Pincus T, and **QUEST-RA Group**. "Physical inactivity in patients with rheumatoid arthritis: data from twenty-one countries in a cross-sectional, international study." *Arthritis Rheum* **59**, 42–50 (2008). URL <http://dx.doi.org/10.1002/art.23255>.
- Naranjo A, Sokka T, Descalzo MA, Calvo-Alén J, Hørslev Petersen K, Luukkainen RK, Combe B, Burmester GR, Devlin J, Ferraccioli G, Morelli A, Hoekstra M, Majdan M, Sadkiewicz S, Belmonte M, Holmqvist AC, Choy E, Tunc R, Dimic A, Bergman M, Toloza S, Pincus T, and **QUEST-RA Group**. "Cardiovascular disease in patients with rheumatoid arthritis: results from the QUEST-RA study." *Arthritis Res Ther* **10**, R30 (2008). URL <http://dx.doi.org/10.1186/ar2383>.
- Keenan RT, **Swearingen, CJ**, and Yazici Y. "Erythrocyte sedimentation rate and C-reactive protein levels are poorly correlated with clinical measures of disease activity in rheumatoid arthritis, systemic lupus erythematosus and osteoarthritis patients." *Clin Exp Rheumatol* **26**, 814–819 (2008).
- Nicholas JS, **Swearingen CJ**, Thomas JC, Rumboldt Z, Tumminello P, and Patel SJ. "The effect of statin pretreatment on infarct volume in ischemic stroke." *Neuroepidemiology* **31**, 48–56 (2008). URL <http://dx.doi.org/10.1159/000140095>.
- Simon DK, **Swearingen CJ**, Hauser RA, Trugman JM, Aminoff MJ, Singer C, Truong D, and Tilley BC on behalf of NET-PD Investigators. "Caffeine and progression of Parkinson disease." *Clin Neuropharmacol* **31**, 189–196 (2008). URL <http://dx.doi.org/10.1097/WNF.0b013e31815a3f03>.
- Pincus T, Luta G, and **Swearingen CJ**. "Efficacy of 1-4 mg per day of prednisone in patients with rheumatoid arthritis: a randomized, double-blind, placebo-controlled withdrawal clinical trial." *Ann Rheum Dis* (2008). URL <http://dx.doi.org/10.1136/ard.2008.095539>.
- Pincus T, Bergman M, Sokka T, Roth J, **Swearingen C**, and Yazici Y. "Visual analog scales in formats other than a 10 centimeter horizontal line to assess pain and other clinical data." *J Rheumatol* **35**, 1550–1558 (2008). URL <http://dx.doi.org/10.3899/jrheum.080182>.

- Schneider MG, **Swearingen CJ**, Shulman LM, Ye J, Baumgarten M, and Tilley BC. “Minority enrollment in Parkinson’s disease clinical trials.” *Parkinsonism Relat Disord* **15**, 258–262 (2009). URL <http://dx.doi.org/10.1016/j.parkreldis.2008.06.005>.
- Pincus T, **Swearingen CJ**, Bergman M, and Yazici Y. “RAPID3 (Routine Assessment of Patient Index Data 3), a rheumatoid arthritis index without formal joint counts for routine care: proposed severity categories compared to disease activity score and clinical disease activity index categories.” *J Rheumatol* **35**, 2136–2147 (2008). URL <http://jrheum.org/content/35/11/2136.full.pdf>.
- Nicholas JS, **Swearingen CJ**, and Kilmer J. “Predictors of skin cancer in commercial airline pilots.” *Occupational Medicine* (2009). URL <http://occmmed.oxfordjournals.org/cgi/content/full/kqp058v1>.
- Sokka T, Toloza S, Cutolo M, Kautiainen H, Makinen H, Gogus F, Skacic V, Badsha H, Oeets T, Baranauskaite A, Geher P, Ujfalussy I, Skopouli FN, Mavrommati M, Alten R, Pohl C, Sibilia J, Stancati A, Salaffi F, Romanowski W, Zarowny-Wierzbinska D, Henrohn D, Bresnihan B, Minnock P, Surland Knudsen L, Jacobs JWG, Calvo-Alen J, Lazovskis J, da Rocha Castelar Pinheiro G, Karateev D, Andersone D, Rexhepi S, Yazici Y, Pincus T, and **QUEST-RA Group**. “Women, men, and rheumatoid arthritis: analyses of disease activity, disease characteristics, and treatments in the QUEST-RA Study.” *Arthritis Res Ther* **11**, R7 (2009). URL <http://dx.doi.org/10.1186/ar2591>.
- Swearingen AM, Loftus T, Ghaemmaghami V, **Swearingen CJ**, Salisbury H, Gerkin RD, and Ferrara J. “Extreme blood alcohol level is associated with increased reasouse use in trauma patients.” *The American Surgeon* (**in press**) (2009).
- Parashos SA, **Swearingen CJ**, Biglan KM, Bodis-Wollner I, Liang GS, Ross GW, Tilley BC, and Shulman LM. “Determinants of the timing of symptomatic treatment in early Parkinson disease: the National Institutes of Health Exploratory Trials in Parkinson Disease (NET-PD) experience.” *Archives of Neurology* **66** (2009). URL <http://dx.doi.org/10.1001/archneurol.2009.159>.
- Ravina B, **Swearingen CJ**, Elm J, Kamp C, Kiebertz K, and Kim SYH. “Long term understanding of study information in research participants with Parkinson’s disease.” *Parkinsonism Relat Disord* (**in press**) (2009).

SUBMITTED
MANUSCRIPTS

- Pincus T, **Swearingen CJ**, Bergman MJ, Colglazier CL, Kaell AT, Kunath AM, Siegel EL, and Yazici Y. “Further comparisons of three quantitative rheumatoid arthritis indices, DAS28, CDAI, and RAPID3 (routine assessment of patient index data): correlations, agreement of activity levels, and time required to score.” Submitted to *Arthritis and Rheumatism*.
- Seidel SE, **Swearingen CJ**, Huang P, Palesch YY, Bergmann KJ, Goetz CG, and Tilley BC on behalf of the NET-PD Investigators. “Interrater reproducibility of NET-PD investigators’ and participants responses on the Unified Parkinsons Disease Rating Scale UPDRS Sections I & II.” Submitted to *Movement Disorders*.

MANUSCRIPTS IN
DEVELOPMENT

- Swearingen CJ**, Guimaraes P, Nietert PJ, Tilley BC, Hinson VK, and Jenkins CM. “Using concordance correlation and multiple imputation to combine two different assessments of the same construct.”
- Swearingen CJ**, Bandyopadhyay D, Woolson RF, and Tilley BC. “Performance of Beta Regression in Detecting Independent Group Differences.”
- Swearingen CJ**, Bandyopadhyay D, and Lawson AB. “Bayesian Linear Spline Beta Regression with Application to Ischemic Stroke Analysis.”

Swearingen CJ, Tilley BC, Adams RJ, Rumboldt Z, Nicholas JS, Bandyopadhyay D, and Woolson RF. "Application of Beta Regression to Analyze Ischemic Stroke Volume in NINDS rt-PA Clinical Trials."

Swearingen, CJ, JS Nicholas, RJ Adams, Z Rumboldt, D Bandyopadhyay, RF Woolson, and BC Tilley. "Re-examining the Association of Statin Pretreatment on Ischemic Stroke Lesion Volume with Beta Regression."

POSTER

PRESENTATIONS

Swearingen CJ. "Using concordance correlation and multiple imputation to combine two different assessments of the same construct." (2008). Poster presentation Eastern North American Region (ENAR) of the International Biometric Society.

Swearingen CJ and Bandyopadhyay D. "Further development of semiparametric methods in Bayesian Beta Regression." (2009). Poster presentation Eastern North American Region (ENAR) of the International Biometric Society.