

Stephen J. Ganocy, PhD
- Curriculum Vitae –
(5/18/09 revision)

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Cleveland, Ohio 44106

**DATE & PLACE
OF BIRTH** June 17, 1943
Uniontown, Pennsylvania

EDUCATION

August 2003 **Doctor of Philosophy**, Statistics, Case Western Reserve University,
Cleveland, Ohio
Dissertation Title: Estimation Problems from Data with Change Points.

January 1980 **Master of Science**, Biometry, Case Western Reserve University,
Cleveland, Ohio

December 1976 **Master of Science**, Mathematics, University of Akron, Akron, Ohio

June 1971 **Bachelor of Science**, Mathematics, University of Akron, Akron, Ohio

EMPLOYMENT

July 2005 – Present **Director, Data Management and Statistical Analysis Unit**,
University Hospitals Case Medical Center

July 2005 – Present. **Assistant Professor**, CWRU Medical School, Department of
Epidemiology & Biostatistics

Aug 2003 - Aug 2004 **Statistician (Health)**, National Institute for Occupational Safety &
Health

Jul 1994 - Jan 2003 **Senior Development Engineer**, Goodyear Tire & Rubber Co.

- Dec 1988 - Jul 1994 **Senior Technical Support Analyst**, Goodyear Tire & Rubber Co.
- Sep 1976 - Dec 1988. **Biostatistician**, Goodyear Tire & Rubber Co.
- Feb 1973 - Sep 1976 **Development Engineer**, Goodyear Tire & Rubber Co.

RESEARCH INTERESTS

- Statistics in Psychiatry, Change point analysis, Experimental design in clinical trials, Biostatistics, Bioinformatics.

COMPUTER SKILLS

- Experienced in IBM MVS and VM mainframe environment, proficient in PC Windows and familiar with Unix.
- Extensive use of S-Plus/R, SAS, Minitab, NCSS, BMDP and other statistical software.
- Trained in Microsoft Office products and the use of SQL.
- Skilled in FORTRAN Programming; occasional use of C and BASIC.
- Course work in Data Analysis (9 credit hours) – computationally intensive.
- Course work in Statistical Computing (3 credit hours).
- Course work in Numerical Analysis (6 credit hours).
- Trained in HTML.

PROJECTS/CONSULTING EXPERIENCE

- Early improvement project with Astra Zanecca, Bristol Myers Squibb, Eli Lilly and Glaxo Smith Kline (2007 - 2008).
- Treatment adherence – Dr. Sajatovic (2006 - 2007).
- Life goals therapy vs. medical management – Dr. Sajatovic (2008).
- Data Safety Monitoring Board member for all trials conducted by the Bipolar Research Center (2006 - ongoing).
- Independent assessment of statistical analysis conducted by Eli Lilly on the use of Olanzapine in a clinical trial, before submission to JAMA for publication (2006).
- Dept. of Defense/Dept. of Veterans Administration longitudinal study on risk and resilience to PTSD in military personnel (2006 - ongoing).
- Teaching: Graduate course in biostatistical methods, CWRU Medical School (2005 - ongoing).
- Teaching: Statistics didactics for 2nd year psychiatry residents, CWRU Dept. of Psychiatry (2006 – ongoing)
- Survey of availability of CBRN (Chemical, Biological, Radiological, Nuclear) respirators to emergency responders (2004).
- Anthropometric survey of respirator users (2003-2004)
- Feasibility study of respiratory surveillance in the construction industry (2003-2004)
- Surveillance of programs using respirators (2003-2004)
- Permeation testing using a newly developed data acquisition system (2003-2004)
- Evaluation of Employee Training on the use of Self Contained Self Rescue Devices (2004)

- Comparison of Laser Profiling vs. digital caliper for tread depth measurement (2002)
- Bead Area Durability of Off-the-Road Tires (2002)
- Tread Arc Radius data analysis (2002)
- NHTSA Tire Endurance Testing (2002)
- Analysis of the decay of Pb²¹⁰ and Be⁷ in a geology experiment (2002)
- LD-50 calculation for an oral bacterial study in dentistry (2002)
- RPK (Revolutions Per Kilometer) Tire Analysis on the Chrysler PT Cruiser (2001)
- Trailer Traction Error Analysis (2001)
- Measurement System Analysis (R & R Studies) (2001)
- Analysis of Objective Ride Parameters (2001)
- Snow Traction Modeling (2001)
- Durability Comparison of Nylon Yarn (DuPont vs. Solutia) (2001)
- Kranj, Slovenia – Green, Ohio Airspring Test Comparison (2001)
- Repeatability of Rim Slip Test for tires (2001)
- Effect of Force & Moment Properties on J-turn (2001)
- Resampling Methods for Determining W09 Durability Test “Bogey” (2000-2002)
- Treadwear Data Analysis (2000)
- Tire Bead Test Development Project (1999) (*Received Trade Secret Award*)
- Bead Compression Repeatability (1999)
- DOE for Crown Area Durability Study (1999)
- Laser Measurement of Tread Depth (1998)
- QGL Traction Program (1998)
- Luxembourg Step-Load Test Development (1998)
- Ford Tire Rolling Resistance Analysis (1998)
- Tire Component Failure Criteria (1998)
- Analysis of Flatspotting Data for Tires (1997)
- Dynamic Pressure Distribution – Tire Footprint Analysis (1997)
- General Motors/Ford/Chrysler Programs (1997)
- Analysis of Farm Tire Competitor Data (1997)
- Analysis of Aquaplaning Tests for Tires (1996)
- Bead Area Durability Program for Light Tires (1996)
- Effects of Tire Break-in (1996)
- All Terrain Vehicle Scrap Tire Rate (1996)
- Tire Placement for On-the-Road Studies (1996)
- Goodyear Tire Global Footprint Study (1996)
- Optimization of Initial Stresses on Green Tires Study (1995)
- Evaluation of Accelerated Wheel Test for Tires (1995)
- Evaluation of Michelin Treadwear Program (1995)
- Analysis of SAE (Society of Automotive Engineers) Round Robin Rolling Resistance Data (1995)
- Ford Drift Acceleration Analysis (1994)
- FEA Study for Rolling Resistance Reduction (1994)
- SAS Technical Support (1989-1994)
- Development of Goodyear Death Registry (1937-1989) (1978-1989)
- Risk assessment of chemicals used in processes at Goodyear (1980-1989)
- Interface with industry groups involved with worker’s health (RMA, IISRP) (1980-1989)
- Statistical consultant to Industrial Hygiene and Environmental Engineering (1980-1989)

- Interface with consultants in field of Epidemiology (1980-1989)
- Proportional Mortality study of Bladder cancer at Canadian tire plant (1986)
- Proportional Mortality study of Bladder cancer at Kelly-Cumberland tire plant (1983)
- Mortality study of Goodyear Atomic workers (1983)
- Mortality study of Goodyear Aerospace workers (1983)
- Mortality study of Goodyear Research & Development workers (1983)
- Interface with Joint Occupational Health Studies Group (Univ. of N. Carolina) (1978-1982)
- Proportional Mortality study of deaths from heart disease at Jackson, Michigan tire plant (1980)
- Dermatitis study at Gadsden tire plant (1981)
- Incidence of Heart Disease at Niagara Falls chemical plant (1979)
- Proportional Mortality study of Angiosarcomas at Niagara Falls chemical plant (1978)
- Evaluation of NIOSH study on Leukemia among Pliofilm workers (1977)
- Application of numerical analytical techniques to chemical engineering problems (1973-1977)

PRESENTATIONS

- Evaluation of the Mood Disorders Questionnaire (MDQ) for Diagnosing Bipolar Disorder in a Sample of Inmates in a County Jail. International Conference on Bipolar Disorder, Pittsburgh, Pennsylvania, June 7, 2007.
- Statistics in Psychiatry. CWRU Statistics Colloquium, Cleveland, Ohio, November 15, 2006.
- Predictors of Legal Involvement in Patients with Rapid Cycling Bipolar Disorder. American Psychiatric Association Meetings, Toronto, Ontario, May 22, 2006.
- Estimation Problems from Data with Change Points. Constella Group, Durham, North Carolina, April 5, 2005.
- Estimation Problems from Data with Change Points. CDC/NCID, Atlanta, Georgia, February 11, 2005.
- Estimation Problems from Data with Change Points. Milliken & Company, Spartanburg, South Carolina, January 7, 2005.
- Estimation Problems from Data with Change Points. Battelle Institute, Columbus, Ohio, November 17, 2004.
- Estimation Problems from Data with Change Points. Pfizer Global Research and Development, Groton, Connecticut, September 28, 2004.
- Estimation Problems from Data with Change Points. National Security Agency, Ft. Meade, Maryland, September 15, 2004.
- Estimation Problems from Data with Change Points. Food and Drug Administration, CDRH, Rockville, Maryland, May 15, 2003.
- Estimation Problems from Data with Change Points and Images. International Biometric Society, ENAR, Spring Meeting, Tampa, Florida, March 2003.
- Calculation of the Mean and Variance of Lognormal Data Which Contains Left-Censored Observations. Midwest SAS Users Group, Cleveland, Ohio, October 1995.
- Risk Assessment. International Rubber Manufacturer's Association meeting in Annapolis, Maryland, June 1983.

PROFESSIONAL ACTIVITIES

- Judge, competition of statistical papers submitted to peer-reviewed journals by CDC personnel, 2004.
- Co-chair Poster Session, Bump Hunting Workshop, Cleveland, Ohio, 2002.
- Session coordinator, Midwest SAS Users Group, Omaha, Nebraska, 1994.
- Session coordinator, SAS Users Group International, Chicago, Illinois, 1996.
- Treasurer, Cleveland Chapter of the American Statistical Association, 1987-1988.
- Member: American Statistical Association, Biometric Society, American Society for Quality, Institute for Mathematical Statistics, International Chinese Statistical Association, Society for Clinical Trials.

MISCELLANEOUS

- Acknowledgement: Shah, A.H., Cianciola, N.L., Mills, J. L., Sonnichsen, F.D. and Carlin, C. (2007). Adenovirus RID α regulates endosome maturation by mimicking GTP-Rab7. *The Journal of Cell Biology*, 179, 965-980.
- Acknowledgement: Gao, P., El-Ayouby, N. and Wassell, J.T. (2005). Change in permeation parameters and the decontamination efficacy of three chemical protective gloves after repeated exposures to solvents and thermal decontaminations. *American Journal of Industrial Medicine*, 47, 131-143.
- Technical Reviewer: Worker Health Chartbook, 2004. DHHS (NIOSH) Publication No. 2004-146, September 2004.
- Acknowledgement: Roquemore, K. G. (1976). Hybrid Designs for Quadratic Response Surfaces. *Technometrics*, 18, 419-423.
- Military service: United States Air Force veteran

Awards/Honors

- Pi Mu Epsilon (PiME) Mathematics Honorary.
- Patent & Trade Secret Award, 1999.

RESEARCH

NIMH/FEDERAL FUNDING:

1. **Bipolar Disorder Across the Life Span (P20), Developing Center for Interventions and Services Research. PI – Joseph R. Calabrese, M.D. Director: Data Management Statistical Analysis Unit – Stephen J. Ganocy, PhD (40%)**

Source: NIMH P20 MH-66054

Project Dates: 9/1/03 – 6/1/09
 Total Award: \$2,967,934

The primary objective of this funding is to build and maintain a network of sites to conduct phenomenologic and clinical trials research that concurrently address issues of efficacy and effectiveness in underserved populations of bipolar disorder across the life cycle, including those at community mental health centers, children and adolescents, and those currently abusing alcohol and/or drugs.

2. Resilience and Risk Factors Associated With Combat-related Posttraumatic Psychopathology. PI – Joseph R. Calabrese, M.D. Director: Data Coordinating Center – Stephen J. Ganocy, PhD (20%)

Source: **Department of Defense (DoD)**
 FY 06 House of Representative Appropriation
 ARMY RDT&E
 Defense Research Sciences (R-1,2), pg 345
 Conference Report: H.R. 109-359, 18 Dec 05
 PE: 611102, Project T61, title: **National Research Consortium for Stress Induced Neurochemically Based Mood Disorders**

Project Dates: FY 2006
 Total Award: \$4,500,000
 Direct Award: \$4,215,000
 DoD MOMRP External Indirects: 6.822%
 University Hospitals Indirects: 54.5%
 University of Toledo: 48.3%

Source: **Department of Defense**
 FY 07 House of Representative Appropriation
 ARMY RDT&E
 Defense Research Sciences (R-1,2), page 237
 Conf. Report 109-676 to HR 5631 25 Sept 06
 Recurring ADD for PE: 611102, Project T61 under
 new title: **Combat Mental Health Initiative**

Project Dates: FY 2007
 Total Award: \$2,600,000
 Direct Award: \$2,216,000
 DoD TATRC External Indirects: ~15.07143%
 Institutional Internal Indirects (F&A): 35%

Source: **Department of Defense**
 FY 08 House of Representative Appropriation
 ARMY RDT&E
 Defense Research Sciences (R-1,2), page 249
 Conf. Report 110-434 to HR3222 06 Nov 2007
 Recurring ADD for PE: 611102
 Under title: **Combat Mental Health Initiative**

Project Dates: FY 2008
 Total Award: \$2,800,000
 Direct Award: \$2,378,000
 DoD TATRC External Indirects: ~15.07143%

Institutional Internal Indirects (F&A): 35%

The general objective of these grants is to create a research infrastructure capable of supporting a series of projects that evaluate the relationships between resilience and risk factors, both cross-sectionally and longitudinally, associated with the development of post-deployment combat-related posttraumatic psychopathology in both VA treatment seekers and non-treatment seekers. The initial project for this Initiative is an observational survey study which uses a cross-sectional study sample to form a longitudinal prospective cohort to study the relationships between pre-existing mental illness/substance use disorders, deployment to OIF or OEF, and post-deployment related mental health and overall psychosocial adjustment. The proposed study will evaluate several groups of the Ohio National Guard: 1) those deployed to OIF (Iraq, Kuwait, or Qatar), 2) those deployed OEF (Afghanistan), 3) those deployed to other areas of conflict (Bosnia, Turkey, Uzbekistan, Kosovo, on a ship, or other), 4) those deployed domestically, and 5) those not deployed. Research visits will be conducted at the time of enlistment, every 12 months for up to 10 years, and 90-180 days after each deployment. This project is designed to enroll up to 3,000 members of the Ohio National Guard between 2007 and 2010, and conduct research assessments at up to 15 time-points through 2020.

Foundation Awards:

1. **Use of Pioglitazone in the Treatment of Bipolar Depression. Young Investigator PI: David E. Kemp, MD. Statistician Co-Investigator - Stephen J. Ganocy, PhD.**

Source: NARSAD Young Investigator Award
 Projected Dates: 7/08 - 7/10
 Contracted Amount: \$60,000

2. **A Pragmatic Clinical Effectiveness Trial in Highly Multi-morbid Presentations of Anxious Patients with Bipolar I or II Depression Young Investigator PI: - Keming Gao, MD, PhD. Statistician Co-Investigator - Stephen J. Ganocy, PhD**

Source: NARSAD Young Investigator Award
 Projected Dates: 7/06 - 7/08
 Contracted Amount: \$60,000

Pharmaceutical Grants:

1. **A Double-Blind, Randomized, Parallel Study to Evaluate the Efficacy and Safety of Quetiapine XR Monotherapy in the Treatment of Major Depressive Disorder with Comorbid Generalized Anxiety Disorder -PI: Keming Gao, MD, PhD. Statistician Co-Invstigator – Stephen J. Ganocy, PhD**

Source: AstraZeneca
 Project Dates: 4/08-4/11
 Contracted Amount: \$400,000

2. **A Double-Blind, Randomized, Parallel Study to Evaluate the Efficacy and Safety of Divalproex ER in Bipolar I or Bipolar II Depression Previously Diagnosed But Mood Stabilizer Naive - PI: David Muzina, MD. Statistician Co-Investigator – Stephen J. Ganocy, PhD**

Source: Abbott
 Project Dates: 4/05-4/08

Contracted Amount: \$395,000

3. **Bipolar mania: Identify predictors of response to Zyprexa (olanzapine) in adolescents with acute mania. Schizophrenia: Time course of symptom reduction in pediatric patients with early onset schizophrenia. PI: Robert L. Findling, MD. Statistician Co-Investigator – Stephen J. Ganocy, PhD**

Source: Lilly
Project Dates: 6/09-6/11
Contracted Amount: \$60,000

Non-Peer Reviewed Papers:

1. **Ganocy, S. J.** (1995). Calculation of the Mean and Variance of Lognormal Data Which Contains Left-Censored Observations. Proceedings of the Sixth Annual Conference of the Midwest SAS Users Group, Cleveland, Ohio, October 1995.
2. **Ganocy, S. J.** (1997). Book Review: Design of Experiments for Process Improvement and Quality Assurance by Robert F. Brewer, Technometrics, 39, 425.
3. **Ganocy, S. J.** (2002). Book Review: Bayesian Statistical Modelling, by Peter Congdon, Technometrics, 44, 291-292.
4. **Ganocy, S.J.** (2003). Estimation Problems from Data with Change Points. PhD thesis, Case Western Reserve University.
5. **Ganocy, S. J.** (2005). Book Review: Introduction to Bayesian Statistics, by William M. Bolstad, Technometrics, 47, 236.
6. **Ganocy, S. J.** (2006) Book Review: Numerical Methods for Nonlinear Estimating Equations, by Christopher G. Small and Jinfang Wang, Technometrics, 48, 569.

Peer-Reviewed Papers:

1. Calabrese JR, Shelton MD, Rapport DJ, Youngstrom EA, Jackson K, Bilali S, **Ganocy SJ**, Findling, RL: A 20-month, double-blind, maintenance trial of lithium vs. divalproex in rapid-cycling bipolar disorder. Am J Psychiatry. 2005 Nov;162:2152-2161.
2. Shim SS, Hammonds MD, **Ganocy SJ**, Calabrese JR: Effects of sub-chronic lithium treatment on synaptic plasticity in the dentate gyrus of rat hippocampal slices. Prog. Neuropsychopharmacol Biol Psychiatry 2007 Mar 30;31(2):343-7.
3. Xia G, Gajwani P, Muzina DJ, Kemp DE, Gao K, **Ganocy SJ**, Calabrese JR: Treatment-emergent mania in unipolar and bipolar depression: Focus on repetitive transcranial magnetic stimulation. Int J Neuropsychopharmacol. 2008 Feb;11(1):119-30. Epub 2007 Mar 5.
4. Syamlal G, Doney B, Bam KM, Greskevitch M, Groce D, **Ganocy S**, Hoffman W: Medical fitness evaluation for respirator users: results of a national survey of private sector employers. J Occup Environ Med. 2007 Jun; 49(6):691-9.

5. Sajatovic M, Elhaj O, Youngstrom EA, Bilali SR, Rapport DJ, **Ganocy SJ**, Calabrese JR. Treatment adherence in individuals with rapid cycling bipolar disorder: results from a clinical trials setting. *J Clin Psychopharmacol*. 2007 Aug;27(4):412-414.
6. Kemp DE, Hirschfeld RM, **Ganocy SJ**, Elhaj O, Slembariski R, Bilali S, Conroy C, Pontau J, Findling RL, Calabrese JR. Screening for bipolar disorder in a county jail at the time of criminal arrest. *J Psychiatr Res* 2008 Jul42(9):778-86. Epub 2007 Nov 1.
7. Gao K, **Ganocy SJ**, Gajwani P, Muzina DJ, Kemp DE, Calabrese JR. A review of sensitivity and tolerability of antipsychotics in patients with bipolar disorder or schizophrenia: Focus on somnolence. *J Clin Psychiatry*. 2008 Feb;69(2)302-9.
8. Gao K, Kemp DE, **Ganocy SJ**, Gajwani P, Xia G, Calabrese JR: Antipsychotic-induced extrapyramidal side effects in bipolar disorder and schizophrenia: a systematic review. *J Clin Psychopharmacol*. 2008 Apr;28(2):203-9. Review.
9. Gao K, Verdun ML, Kemp DE, Tolliver BK, **Ganocy SJ**, Elhaj O, Bilali S, Brady KT, Findling RL, Calabrese JR: Clinical correlates of patients with rapid-cycling bipolar disorder and a recent history of substance use disorder: a subtype comparison from baseline data of 2 randomized, placebo-controlled trials. *J Clin Psychiatry* 2008 Jul;69(7):1057-63.
10. Gao K., Tolliver BK, Kemp DE, Verduin ML, **Ganocy SJ**, Bilali S, Brady KT, Shim SS, Findling RL, Calabrese JR: Differential interactions between comorbid anxiety disorders and substance use disorder in rapid cycling bipolar I or II disorder. *J Affect Disord*.2008 Sep;110(1-2):167-73.
11. Kemp DE, Gao K, **Ganocy SJ**, Clades E, Feldman K, Chan PK, Conroy C, Bilali S, Findling RL, Calabrese JR: Medical and substance use comorbidity in bipolar disorder. *J Affect Disord*. 2008 Dec 17. [Epub ahead of print].
12. Kemp DE, Gao K, **Ganocy SJ**, Elhaj O, Bilali SR, Conroy C, Findling RL, Calabrese JR: A 6-month, double-blind, maintenance trial of lithium monotherapy versus the combination of lithium and divalproes for rapid-cycling bipolar disorder and co-occurring substance abuse or dependence. *J Clin Psychiatry* 2009;70(1):113-21.