

Charity Johanna Morgan, Ph.D.

RPHB 327P
1665 University Blvd
Birmingham, AL 35294-0022

Email: cjmorgan@uab.edu
Phone: 205-975-9215
Fax: 205-975-2540

Education and Training

- University of Alabama at Birmingham, Birmingham, AL** 2008-2011
Postdoctoral trainee, Section on Statistical Genetics, Department of Biostatistics
Mentors: Gary R. Cutter, Ph.D., Inmaculada B. Aban, Ph.D.
Supported by NIH/NINDS T32NS054584
- Harvard University, Cambridge, MA** 2003-2008
Ph.D., Statistics
Dissertation: Assessing Thought Disordered Behavior using Finite Mixture Models
and Comparing Approximations for Logistic Regression.
Advisor: Donald B. Rubin, Ph.D.
A.M., Statistics
- Washington University, St. Louis, MO** 1999-2003
B.A., Mathematics, summa cum laude

Current Position

- University of Alabama at Birmingham, Birmingham, AL** 2017-present
Associate Professor, Department of Biostatistics

Previous Employment

- University of Alabama at Birmingham, Birmingham, AL** 2012-2017
Assistant Professor, Department of Biostatistics
- Food and Drug Administration, Silver Spring, MD** 2011
Division of Biostatistics, Center for Devices and Radiological Health
Mathematical Statistician. Reviewed and helped refine protocols for medical device
clinical trials and evaluated completed studies for device safety and effectiveness.

Awards

- International Congress on Schizophrenia Research Young Investigator Award 2012
Federation of American Societies for Experimental Biology Minority Access to Research Careers Travel Award 2009
Harvard University James Mills Pierce Fellowship 2003

Washington University Ross Middlemiss Prize in Mathematics	2003
Phi Beta Kappa Honor Society	2002
Washington University John B Ervin Scholars Program	1999-2003

Professional Activities

Data Safety Monitoring Board, Efficacy of Supported Employment within the OIF/OEF Patient Aligned Care Team <i>Chair</i>	2016-present
American Journal of Physiology – Lung, Cellular and Molecular Physiology, American Physiological Society <i>Statistical Consultant</i>	2016-present
Data Safety Monitoring Board, Use of Azithromycin for RSV-induced respiratory failure in children <i>Member</i>	2015-present
Data Safety Monitoring Board, UAB Adult and Pediatric CBD Programs <i>Member</i>	2015-present
Journal of Nuclear Cardiology, American Society of Nuclear Cardiology <i>Statistical Consultant</i>	2015-present
Medical Device Advisory Committee, Food and Drug Administration Ear, Nose and Throat Devices Panel <i>Temporary Voting Member</i> <i>Statistical Consultant</i>	2013-present 2013 2013-2016
Ophthalmic Devices Panel <i>Temporary Voting Member</i>	2014
General Hospital and Personal Use Devices Panel <i>Member</i>	2015-present
Biostatistics Consulting Center, University of Alabama at Birmingham <i>Director</i>	2013-present

Research Support

- NIH/NIMH R21MH117434 (Roberts) Sep 2018 – Jul 2020
Mechanisms of Copper Dysregulation in Schizophrenia
Role: Investigator
- NIM/NIMH R01MH113800 (Lahti) Apr 2018-Dec 2022
Trajectories of Treatment Response as Window into the Heterogeneity of Psychosis: a Longitudinal Multimodal Imaging Study in Medication-naïve First Episode Psychosis Patients
Role: Investigator

3. NIH/NIMH R56MH111471 (Levy) Sep 2017-Aug 2019
The Thought Disorder Endophenotype: A Cognitive Marker for Psychotic Disorders
Role: Subcontract PI
4. DoD W911QY-15-C-0132 (Saleh) Sep 2015-Sep 2021
Surviving Blood Loss: First in Human Studies to Assess Safety and Physiologic Effects of Synthetic Ethinyl Estradiol-3-sulfate (EE-3-SO₄) in Healthy Subjects, Both Euvolemic and Following 10-20% Iatrogenic Blood Loss
Role: Investigator
5. PCORI CER-1503-27915 (Corboy) May 2016-Nov 2020
Discontinuation of Disease Modifying Therapies (DMTs) in Multiple Sclerosis (MS)
Role: Investigator
6. PCORI CE-1304-6631 (Singh) Jan 2014-Dec 2016
Individualized Patient Decision Making for Treatment Choices among Minorities with Lupus
Role: Statistician
7. NIH/NIAID R03DK095005 (Gutierrez) Jun 2012-May 2015
Phosphorus-based Food Additives, Mineral Metabolism and Cardiovascular Health
Role: Statistician
8. NIH/NIAID BAA-NIAID-DMID-NIHAI2010101 (Gnann) Oct 2011-Sep 2017
Safety Tolerability and Pharmacokinetics of CMX-001 in Renal Transplant Recipients with BKV Viremia: A Phase IIA Randomized, Double-Blind, Placebo-Controlled, Dose-Escalation Study
Role: Investigator
9. NIH/NIAID BAA-NIAID-DMID-NIHAI2010101 (Kimberlin) Oct 2011-Sep 2017
A Pharmacokinetic/Pharmacodynamic and Resistance Evaluation of Intravenous Ganciclovir in Premature Infants
Role: Investigator
10. NIH/NIAID BAA-NIAID-DMID-NIHAI2010101 (Kimberlin) Oct 2011-Sep 2017
Adaptive Study of CMX-001 in Infants with Neonatal Herpes Simplex Virus (HSV)
Role: Investigator
11. NIH/NIAID BAA-NIAID-DMID-NIHAI2010101 (Kimberlin) Oct 2011-Sep 2017
Adaptive Sequential Study Evaluating Prevention of Neonatal HSV: Detection of Maternal Shedding at Delivery Followed by Preemptive Antiviral Therapy in Exposed Neonates
Role: Investigator
12. NIH/NIAID BAA-NIAID-DMID-NIHAI2010101 (Kimberlin) Oct 2011-Sep 2017
A Phase II 6 Weeks Oral Valganciclovir versus Placebo in Infants with

Congenital CMV Infection and Hearing Loss
 Role: Investigator

13. NIH/NINDS T32NS054584 (Cutter) Jul 2007-Jun 2012
 UAB Pre- and Post-Doctoral Training Program in Biostatistics
 Role: Postdoctoral Trainee
14. NIH/NIMH R01MH071523 (Levy) Feb 2006-May 2011
 Pleiotropic Effects of Genes Linked to Schizophrenia
 Role: Statistician

Peer-Reviewed Publications

1. **Morgan, C.J.** Landmark analysis: A primer. In press with *Journal of Nuclear Cardiology*.
 * Invited editorial
2. Kraguljac, N., Anthony, T., Skidmore, F.M., Marstrander, J., **Morgan, C.J.**, Reid, M.A., White, D.M., Jindal, R.D., Skefos, N.H.M., Lahti, A.C. Micro- and Macrostructural White Matter Integrity in Schizophrenia and Effects of Short Term Antipsychotic Treatment. In press with *Biological Psychiatry: Cognitive Neuroscience and Neuroimaging*.
3. Kraguljac, N.V., **Morgan, C.J.**, Reid, M.A., White, D.M., Jindal, R.D., Sivaraman, S., Martinak, B.K., Lahti, A.C. A longitudinal magnetic resonance spectroscopy study investigating effects of risperidone in the anterior cingulate cortex and hippocampus in schizophrenia. In press with *Schizophrenia Research*.
4. Hartzes, A.M., Morgan, C.J. Meta-analysis for diagnostic tests. In press with *Journal of Nuclear Cardiology*.
 * Invited editorial
5. Arundel, C., Sheriff, H.M., Lam, P.H., Mohammed, S.F., Jones, L.G., Jurgens, C.Y., **Morgan, C.J.**, Faselis, C., Allman, R.M., Fonarow, G.C., Ahmed, A. Renin-Angiotensin Inhibition and Outcomes in Nursing Home Residents With Heart Failure. In press with *American Journal of Therapeutics*.
6. Andrikopoulou, E., **Morgan, C.J.**, Brice, L., Bajaj, N., Doppalapudi, H., Iskandrian, A., Hage, F. Incidence of atrioventricular block with vasodilator stress SPECT: A meta-analysis. In press with *Journal of Nuclear Cardiology*.
7. Bayoumi, E., Lam, P.H., Dooley, D.J., Singh, S., Faselis, C., **Morgan, C.J.**, Patel, S., Sheriff, H.M., Mohammed, S.F., Palant, C.E., Pitt, B., Fonarow, G.C., Ahmed, A. Spironolactone and Outcomes in Older Patients with Heart Failure and Reduced Ejection Fraction. *American Journal of Medicine* 2019; 132: 71-80.
8. Wood, W., McCollum, J., Kukreja, P., Vetter, I.L., **Morgan, C.J.**, Hossein Zadeh Maleki, A., Riesenber, L.A. Graduate medical education scholarly activities initiatives: a systematic review and meta-analysis. *BMC Medical Education* 2018; 18: 318.
9. Arundel, C., Sheriff, H., Bearden, D.M., **Morgan, C.J.**, Heidenreich, P.A., Fonarow, G.C., Butler, J., Allman, R.M., Ahmed, A. Discharge home health services referral and 30-day all-cause readmission in older adults with heart failure. *Archives of Medical Science* 2018; 14: 995-1002.

10. Lam, P.H., Gupta, N., Dooley, D.J., Singh, S., Deedwania, P., Zile, M.R., Bhatt, D.L., Morgan, C.J., Pitt, B., Fonarow, G.C., Ahmed, A. Role of High-Dose Beta-Blockers in Patients with Heart Failure with Preserved Ejection Fraction and Elevated Heart Rate. *American Journal of Medicine* 2018; 131: 1473-1481.
11. Sivaraman, S., Kraguljac, N.V., White, D.M., **Morgan, C.J.**, Gonzales, S.S., Lahti, A.C. Neurometabolic Abnormalities in the Associative Striatum in Antipsychotic-naïve First Episode Psychosis Patients. *Psychiatry Research: Neuroimaging* 2018; 281: 101-106.
12. Afreen, L.K., Nakayama, T. Bryant, A.S., **Morgan, C.J.**, Ness, T.J., Jones, K.A., Wilcox, C.M. Phillips, M.C. Incidence of Venous Air Embolism during Endoscopic Retrograde Cholangiopancreatography. *Anesthesia and Analgesia* 2018; 127: 420-423.
13. Lam, P.H., Bhyan, P., Arundel, C., Dooley, D.J., Sheriff, H.M., Mohammed, S.F., Fonarow, G.C., **Morgan, C.J.**, Aronow, W.S., Allman, R.M., Waagstein, F., Ahmed, A. Digoxin use and lower risk of 30-day all-cause readmission in older patients with heart failure and reduced ejection fraction receiving β -blockers. *Clinical Cardiology* 2018; 41: 406-412.
14. Tsimploulis, A., Lam, P.H., Arundel, C., Singh, S.N., **Morgan, C.J.**, Faselis, C., Deedwania, P., Butler, J., Aronow, W.S., Yancy, C.W., Fonarow, G.C., Ahmed, A. Systolic Blood Pressure and Outcomes in Patients With Heart Failure With Preserved Ejection Fraction. *JAMA Cardiology* 2018; 3: 288-297.
15. Wagener, B.M., Hu, P.J., Oh, J.Y., Evans, C.A., Richter, J.R., Honavar, J., Brandon, A.P., Creighton, J., Stephens, S.W., **Morgan, C.J.**, Marques, M.B., Kerby, J.D., Patel, R.P., Pittet, J.F. Role of Heme in Lung Immunosuppression after Trauma-Hemorrhage and Stored RBC transfusion: A pre-clinical experimental study. *PLOS Medicine* 2018; 15: e1002522.
16. Davis, R., Davis, J., Berg, K., Berg, D., **Morgan, C.J.**, Russo, S., Riesenber, L.A.. Patient Handoff Education: Are Medical Schools Catching Up? *American Journal of Medical Quality* 2018; 33: 140-146.
17. **Morgan, C.J.** Reducing bias using propensity score matching. *Journal of Nuclear Cardiology* 2018; 25: 404-406.
* *Invited editorial*
18. Russell, R.T, Christiaans, S.C., Nice, T., Banks, M., Mortellaro, V., **Morgan, C.J.**, Duhachek-Stapelman, A., Lisco, S.J., Kerby, J.D., Wagener, B.M., Chen, M.K., and Pittet, J.F. Histone-complexed DNA fragments levels are associated with coagulopathy, endothelial cell damage, and increased mortality after severe pediatric trauma. *Shock* 2018; 49: 44-52.
19. **Morgan, C.J.** The use of proper statistical techniques for research studies with small samples. *American Journal of Physiology-Lung, Cellular and Molecular Physiology* 2017; 313: L8730-L877.
* *Invited review*
20. Erwin, B.L., Denaburg, M.A., Barker, A.B., McArdle, P.J., Windham, S.T, **Morgan, C.J.** Evaluation of vasopressin for septic shock in patients on chronic renin-angiotensin-aldosterone system inhibitors. *Critical Care Medicine* 2017; 45: e1226-e1232.
21. Lam, P.H., Dooley, D.J., Deedwania, P., Singh, S.N., Bhatt, D.L., **Morgan, C.J.**, Butler, J., Mohammed, S.F., Wu, W.C., Panjath, G., Zile, M.R., White, M., Arundel, C., Love, T.E., Blackman, M.R., Allman, R.M., Aronow, W.S., Anker, S.D., Fonarow, G.C., Ahmed, A. Heart Rate and Outcomes

- in Hospitalized Patients with Heart Failure and Preserved Ejection Fraction. *Journal of American College of Cardiology* 2017; 70: 1861-1871.
22. Acharya, D. Loyaga-Rendon, R. **Morgan, C.J.**, Sands, K.A., Pamboukian, S.V., Rajapreyar, I., Holman, W.L., Kirklin, J.K., Tallaj, J.A. INTERMACS Analysis of Stroke during Support with Continuous Flow Left Ventricular Assist Devices: Risk factors and Outcomes. *JACC Heart Failure* 2017; 5: 703-711.
 23. Sheriff, H.M., Thogaripally, M.R., Panjra, G., Arundel, C., Zeng, Q., Fonarow, G.C., Butler, J., Fletcher, R.D., **Morgan, C.J.**, Blackman, M.R., Deedwania, P., Love, T.E., Aronow, W.S., Anker, S.D., Allman, R.M., Ahmed, A. Digoxin and 30-Day All-Cause Readmission in Long-Term Care Residents Hospitalized for Heart Failure. *Journal of the American Medical Directors Association* 2017; 18: 761-765.
 24. Bytyci, I., Bajraktari, G., Bhatt, D.L., **Morgan, C.J.**, Ahmed, A., Aronow, W.S., Banach, M. Hydrophilic vs lipophilic statins in coronary artery disease: a meta-analysis of randomized controlled trials. *Journal of Clinical Lipidology* 2017; 11: 624-637.
 25. Field, J.M., Davis, J., Girson, L., Au, A., **Morgan, C.J.**, Vetter, I., Riesenber, L.A. Transthoracic echocardiography for diagnosing pulmonary embolism: a systematic review and meta-analysis. *Journal of the American Society of Echocardiography* 2017; 30: 714-723.
 26. Powell, M.F., **Morgan, C.J.**, Cantu, J.A., Sakawi, Y., Biggio, J.R., Tita, A.T.N., Szychowski, J.M., Edwards, R.K. Obesity and neonatal cord blood gas results at cesarean: Effect of intraoperative blood pressure. *American Journal of Perinatology* 2017; 34: 716-721.
 27. Kalra, R., Arora, P., **Morgan, C.J.**, Hage, F.G., Iskandrian, A.E., and Bajaj, N.S. Conducting and interpreting high-quality systematic reviews and meta-analyses. *Journal of Nuclear Cardiology* 2017; 24: 471-481.
* *Invited editorial*
 28. **Morgan, C.J.** Statistical issues associated with terminating a clinical trial due to slow enrollment. *Journal of Nuclear Cardiology* 2017; 24: 525-526.
* *Invited editorial*
 29. Tsimploulis, A., Sheriff, H.M., Lam, P.H., Dooley, D.J., Anker, M.S., Papademetriou, V., Fletcher, R.D., Faselis, C., Fonarow, G.C., Deedwania, P., White, M., Valentova, M., Blackman, M.R., Banach, M., **Morgan, C.J.**, Alagiakrishnan, K., Allman, R.M., Aronow, W.S., Anker, S.D., Ahmed, A. Systolic-diastolic hypertension versus isolated systolic hypertension and incident heart failure in older adults: Insights from the Cardiovascular Health Study. *International Journal of Cardiology* 2017; 235: 11-16.
 30. Sheriff, H.M., Tsimploulis, A., Valentova, M., Anker, M.S., Deedwania, P., Banach, M., **Morgan, C.J.**, Blackman, M.R., Fonarow, G.C., White, M., Alagiakrishnan, K., Allman, R.M., Aronow, W.S., Anker, S.D., Ahmed, A. Isolated diastolic hypertension and incident heart failure in community-dwelling older adults: Insights from the Cardiovascular Health Study. *International Journal of Cardiology* 2017; 238:140-143.
 31. Lottman, K.K., Kraguljac, N.V., White, D.M., **Morgan, C.J.**, Calhoun, V.D., Butt, A., Lahti, A.C. Risperidone effects on brain dynamic connectivity -- a prospective resting state fMRI study in schizophrenia. *Frontiers in Psychiatry* 2017; 8: 14.

32. **Morgan, C.J.**, Coleman, M.J., Ulgen, A., Boling, L., Cole, J.O., Johnson, F.V., Lerbinger, J., Bodkin, J.A., Holzman, P.S., Levy, D.L. Thought disorder in schizophrenia and bipolar disorder probands, their relatives and non-psychiatric controls. *Schizophrenia Bulletin* 2017; 43: 523-535.
33. Lam, P.H., Dooley, D.J., Inampudi, C., Arundel, C., Fonarow, G.C., Butler, J., Wu, W.-C., Blackman, M.R., Anker, M.S., Deedwania, P., White, M., MD; Prabhu, S.D., **Morgan, C.J.**, Love, T.E., Aronow, W.S., Allman, R.M., Ahmed, A. Lack of evidence of lower 30-day all-cause readmission in Medicare beneficiaries with heart failure and reduced ejection fraction discharged on spironolactone. *International Journal of Cardiology* 2017; 227: 462-466.
34. Andrikopoulou, E. and **Morgan, C.J.** Calculating measures of treatment effect for use in clinical practice. *Journal of Nuclear Cardiology* 2017; 24: 188-190.
* *Invited editorial*
35. Arundel, C., Lam, P.H., Khosla, R., Blackman, M.R., Fonarow, G.C., **Morgan, C.J.**, Zeng, Q., Fletcher, R.D., Butler, J., Wu, W.C., Deedwania, P., Love, T.E., White, M., Aronow, W.S., Anker, S.D., Allman, R.M., Ahmed, A. Association of 30-Day All-Cause Readmission with Long-Term Outcomes in Hospitalized Older Medicare Beneficiaries with Heart Failure. *American Journal of Medicine* 2016; 129: 1178-1184.
36. Sanam, K., Bhatia, V., Bajaj, N.S., Gaba, S., **Morgan, C.J.**, Fonarow, G.C., Butler, J., Deedwania, P., Prabhu, S.D., Wu, W.C., White, M., Love, T.E., Aronow, W.S., Fletcher, R.D., Allman, R.M., Ahmed, A. Renin-Angiotensin System Inhibition and Lower 30-Day All-Cause Readmission in Medicare Beneficiaries with Heart Failure. *American Journal of Medicine* 2016; 129: 1067-1073.
37. Liu, Y., **Morgan, C.J.**, Hornung, L., Tyry, T., Salter, A.R., Agashivala, N., Belletti, D.A., Kim, E., Fox, R.J., Cofield, S.S., Cutter, G.R. Relationship between symptom change, relapse activity, and disability progression in multiple sclerosis. *Journal of Neurological Sciences* 2016; 362: 121-126.
38. Acharya, D., Sanam, K., Revilla-Martinez, M., Hashim, T., **Morgan, C.J.**, Pamboukian, S.V., Loyaga-Rendon, R.Y., George, J.E., Tallaj, J.A. Infections, arrhythmias, and hospitalizations on home intravenous inotropic therapy. *American Journal of Cardiology* 2016; 117: 952-956.
39. Ghatalia, P.* **Morgan, C.J.***, Sonpavde, G. Meta-analysis of regression of advanced solid tumors in patients receiving placebo or no anti-cancer therapy in prospective trials. *Critical Reviews in Oncology/Hematology* 2016; 98: 122-136.
* *Co-first authors*
40. Judd, S.E., **Morgan, C.J.**, Panwar, B., Howard, V.J., Wadley, V.G., Jenny, N.S., Kissela, B.M., Gutierrez, O.M. Vitamin D deficiency and incident stroke risk in community-living black and white adults. *International Journal of Stroke* 2016; 11: 93-102.
41. **Morgan, C.J.** and Aban, I. Methods for evaluating the agreement between diagnostic tests. *Journal of Nuclear Cardiology* 2016; 23: 511-513.
* *Invited editorial*
** *Nominated for 2015 Science Unbound Foundation Award, Best Paper in General Statistics*
42. Paluri, R.K., **Morgan, C.J.**, Mooney, D.J., Mgbemena, O., Yang, E.S., Wei, S., Kouba, E., Naik, G., Erik, K., El Mouallem, N.R., Poston, T., Jones, B., Nix, J., Bolger, G., Deshazo, M., and Sonpavde, G. Effect of African-American race on tumor recurrence following radical cystectomy for urothelial carcinoma of the bladder. *Clinical Genitourinary Cancer* 2015; 13: 469-475.

43. Hashim, T., Sanam, K., Revilla-Martinez, M., **Morgan, C.J.**, Tallaj, J.A., Pamboukian, S.V., Loyaga-Rendon, R.Y., George, J.F., Acharya, D. Clinical Characteristics and Outcomes of Intravenous Inotropic Therapy in Advanced Heart Failure. *Circulation Heart Failure* 2015; 8: 880-886.
44. Kheirbek, R.E., Fletcher, R.D., Bakitas, M.A., Fonarow, G.C., Parvataneni, S., Bearden, D., Bailey, A., **Morgan, C.J.**, Singh, S., Blackman, M.R., Zile, M.R., Patel, K., Ahmed, M.B., Tucker, R.O., Brown, C.J., Love, T.E., Aronow, W.S., Roseman, J.M., Rich, M.W., Allman, R.M., and Ahmed, A. Discharge Hospice Referral and Lower 30-Day All-Cause Readmission in Medicare Beneficiaries Hospitalized for Heart Failure. *Circulation Heart Failure* 2015; 8: 733-740.
45. Bhatia, V., Bajaj, N.S., Sanam, K., Hashim, T., **Morgan, C.J.**, Prabhu, S.D., Fonarow, G.C., Deedwania, P., Butler, J., Carson, P., Love, T.E., Kheirbek, R., Aronow, W.S., Anker, S.D., Waagstein, F., Fletcher, R., Allman, R.M., Ahmed, A. Beta-Blocker Use and 30-Day All-Cause Readmission in Medicare Beneficiaries with Systolic Heart Failure. *The American Journal of Medicine* 2015; 128: 715-721.
46. Ahmed, A.A., Patel, K., Nyaku, M.A., Kheirbek, R.E., Bittner, V., Fonarow, G.C., Filippatos, G.S., **Morgan, C.J.**, Aban, I.B., Mujib, M., Desai, R.V., Allman, R.M., White, M., Deedwania, P., Howard, G., Bonow, R.O., Fletcher, R.D., Aronow, W.S., and Ahmed, A. Risk of Heart Failure and Death after Prolonged Smoking Cessation: Role of Amount and Duration of Prior Smoking. *Circulation Heart Failure* 2015; 8: 694-701.
47. Ghatalia, P.*, **Morgan, C.J.***, Choueiri, T.K., Sonpavde, G. Congestive heart failure with vascular endothelial growth factor receptor tyrosine kinase inhibitors. *Critical Reviews in Oncology/Hematology* 2015; 94: 228-237.
* Co-first authors
48. Ghatalia, P.*, **Morgan, C.J.***, Choueiri, T.K., Naik, G., Galsky, M.D., Sonpavde, G. Pancreatitis with vascular endothelial growth factor receptor tyrosine kinase inhibitors. *Critical Reviews in Oncology/Hematology* 2015; 94: 136-145.
* Co-first authors
49. Soni, A., Ren, Z., Hameed, O., Chanda, D., **Morgan, C.J.**, Siegal, G., Wei, S. Breast cancer subtypes predispose the site of distant metastases. *American Journal of Clinical Pathology* 2015; 143: 471-478.
50. Salter, A., **Morgan, C.J.**, Aban, I.B. Implementation of a two-group likelihood time-to-event continual reassessment method using SAS. *Computer Methods and Programs in Biomedicine* 2015; 121: 189-196.
51. Jones, L.G., Sin, M.-K., Hage, F.G., Kheirbek, R.E., **Morgan, C.J.**, Zile, M.R., Wu, W.-C., Deedwania, P., Fonarow, G.C., Aronow, W.S., Prabhu, S.D., Fletcher, R.D., Ahmed, A., Allman, R.M. Characteristics and outcomes of patients with advanced chronic systolic heart failure receiving care at the veterans affairs vs. other hospitals: insights from the beta-blocker evaluation of survival trial (BEST). *Circulation Heart Failure* 2015; 8: 17-24.
52. Riesenber, L.A., Berg, K., Berg, D., **Morgan, C.J.**, Davis, J., Davis, R., Schaeffer, A., Hargraves, R., Little, B.W. Resident and attending physician perception of maladaptive response to stress in residents. *Medical Education Online* 2014; 19: 25041.
53. Patel, K., Fonarow, G.C., Ahmed, M., **Morgan, C.J.**, Kilgore, M., Love, T.E., Deedwania, P., Aronow, W.S., Anker, S.D., Ahmed, A. Calcium-channel blockers and outcomes in older patients with heart failure and preserved ejection fraction. *Circulation Heart Failure* 2014; 7: 945-952.

54. Bajaj, N.S., Bhatia, V., Sanam, K., Ather, S., Hashim, T., **Morgan, C.J.**, Fonarow, G.C., Nanda, N.C., Prabhu, S.D., Adamopoulos, C., Kheirbek, R., Aronow, W.S., Fletcher, R.D., Anker, S.D., Ahmed, A., Deedwania, P. Impact of atrial fibrillation and heart failure, independent of each other and in combination, on mortality in community-dwelling adults. *American Journal of Cardiology* 2014; 114: 909-913.
55. Inampudi, C., Parvataneni, S., **Morgan, C.J.**, Deedwania, P., Fonarow, G.C., Sanders, P.W., Prabhu, S.D., Butler, J., Forman, D.E., Aronow, W.S., Allman, R.M., Ahmed, A. Spironolactone use and higher hospital readmission for Medicare beneficiaries with heart failure, left ventricular ejection fraction <45%, and estimated glomerular filtration rate <45 ml/min/1.73 m². *American Journal of Cardiology* 2014; 114: 79-82.
56. **Morgan, C.J.**, Lenzenweger, M.F., Rubin, D.B., and Levy, D.L. A hierarchical finite mixture model that accommodates zero-inflated counts, non-independence, and heterogeneity. *Statistics in Medicine* 2014; 33: 2238-2250.
57. **Morgan, C.J.**, Oh, W.K., Naik, G., Galsky, M.D., Sonpavde, G. Impact of prednisone on toxicities and survival in metastatic castration-resistant prostate cancer: a systematic review and meta-analysis of randomized clinical trials. *Critical Reviews in Oncology/Hematology* 2014; 90: 253-261.
58. Hashim, T., Elbaz, S., Patel, K., **Morgan, C.J.**, Fonarow, G.C., Fleg, J.L., McGwin, G., Cutter, G.R., Allman, R.M., Prabhu, S.D., Zile, M., Bourge, R.C., Ahmed, A. Digoxin and 30-day all-cause hospital admission in older patients with chronic diastolic heart failure. *American Journal of Medicine* 2014; 127: 132-139.
59. Rocha, P.*, **Morgan, C.J.***, Templeton, A.J., Pond, G.R., Naik, G., Sonpavde, G. Prognostic impact of C-reactive protein in metastatic prostate cancer: a systematic review and meta-analysis. *Oncology Research and Treatment* 2014; 37: 772-776.
* Co-first authors
60. Ahmed, A., Bourge, R.C., Fonarow, G.C., Patel, K., **Morgan, C.J.**, Aban, I.B., Love, T.E., Fleg, J.L., Yancy, C.W., Deedwania, P., van Veldhuisen, D.J., Filippatos, G.S., Anker, S.D., Allman, R.M. Digoxin use and lower 30-day all-cause readmission for Medicare beneficiaries hospitalized for heart failure. *American Journal of Medicine* 2014; 127: 61-70.
61. **Morgan, C.J.**, Ranjan, A., Aban, I., and Cutter, G. The magnetic resonance imaging 'rule of five': predicting the occurrence of relapse. *Multiple Sclerosis* 2013; 19: 1760-1764.
62. Perumean-Chaney, S.E., **Morgan, C.J.**, McDowall, D., and Aban, I. Zero-inflated and overdispersed: What's one to do? *Journal of Statistical Computation and Simulation* 2013; 83: 1671-1683.
63. Whittaker, B., Christiaans, S.C., Altice, J.L., Chen, M.K., Bartolucci, A.A., **Morgan, C.J.**, Kerby, J.D., and Pittet, J.F. Early coagulopathy is an independent predictor of mortality in children after severe trauma. *Shock* 2013; 39: 421-426.
64. Zivadinov, R., Cutter, G., Marr, K., Ramanathan, M., Benedict, R.H.B., Bergsland, N., **Morgan, C.J.**, Carl, E., Hojnacki, D., Yeh, E.A., Willis, L., Cherneva, M., Kennedy, C., Dwyer, M.G., and Weinstock-Guttman, B. No association between conventional brain MR imaging and chronic cerebrospinal venous insufficiency in multiple sclerosis. *American Journal of Neuroradiology* 2012, 33: 1913-1917.
65. Weinstock-Guttman, B., Ramanathan, M., Marr, K., Hojnack, D., Benedict, R.H.B. **Morgan, C.J.**, Yeh, E.A., Carl, E., Kennedy, C., Reuther, J., Brooks, C., Hunt, K., Elfadil, M., Andrews, M., Zivadinov, R.

Clinical correlates of chronic cerebrospinal venous insufficiency in multiple sclerosis. *BMC Neurology* 2012; 12: 26.

66. **Morgan, C.J.**, Aban, I.B., Katholi, C.R., and Cutter, G.R. Modelling lesion counts in multiple sclerosis when patients have been selected for baseline activity. *Multiple Sclerosis* 2010; 16:926-934.
67. Bar, K.J., Li, H., Chamberland, A., Tremblay, C., Routy, J. P., Grayson, T., Sun, C., Learn, G.H., **Morgan, C.J.**, Schumacher, J.E., Haynes, B.F., Keele, B.F., Hahn, B.H., and Shaw, G.M. Wide variation in the multiplicity of HIV-1 infection among injection drug users. *Journal of Virology* 2010; 84:6241-6247.
68. Li, H., Bar, K., Wang, S., Decker, J., Chen, Y., Sun, C., Salazar-Gonzalez, J.F., Learn, G.H., **Morgan, C.J.**, Schumacher, J.E., Hraber, P., Giorgi, E.E., Bhattacharya, T., Korber, B.T., Perelson, A.S., Eron, J., Cohen, M.S., Hicks, C.B., Haynes, B.F., Markowitz, M., Keele, B.F., Hahn, B.H. and Shaw, G.M. High multiplicity infection by HIV-1 in men who have sex with men. *PLoS Pathogens* 2010; 6: e1000890.
69. **Morgan, C.J.**, LeSage, J.B., and Kosslyn, S.M. Types of deception revealed by individual differences in cognitive abilities. *Social Neuroscience* 2009; 4:554-569.

Other Publications

1. **Morgan, C.J.** Balancing statistical significance and clinical relevance. *Journal of Nuclear Cardiology* 2018; 25: 707-708.
2. Iskandrian, A. E., Dilsizian, V., Garcia, E. V., Beanlands, R. S., Cerqueira, M., Soman, P., Berman, D. S., Cuocolo, A., Einstein, A. J., **Morgan, C. J.**, Hage, F. G., , Schelbert, H. R., Bax, J. J., Wu, J. C., Shaw, L. J., Sadeghi, M. M., Tamaki, N., Kaufmann, P. A., Gropler, R., Dorbala, S., and Van Decker, W. Myocardial perfusion imaging: Lessons learned and work to be done-update. *Journal of Nuclear Cardiology* 2018; 25: 39-52.
3. Kraguljac, N.V., Cutter, G.R., **Morgan, C.J.**, and Lahti, A.C. The problem of spurious correlations between pairs of brain metabolite values measured in the same voxel with magnetic resonance spectroscopy—Reply. *JAMA Psychiatry* 2014; 71:339-40.
4. Cutter, G. R., **Morgan, C.J.**, Salter, A., Cofield, S. and Balcer, L.J. Measures of Neurological Impairment and Disability in Multiple Sclerosis. In Cohen, J. A. and Rudick, R. A. (Eds.), *Multiple Sclerosis Therapeutics*, 4th Edition. Cambridge University Press, 2011.

Conference Presentations and Posters

1. "Heritability of Thought Disorder in Schizophrenia and Bipolar Patients and their Clinically Unaffected First-Degree Biological Relatives." Poster given at McLean Hospital Research Day, Belmont, Massachusetts. January 30, 2019.
2. "Heritability of Thought Disorder in Schizophrenia and Bipolar Patients and their Clinically Unaffected First-Degree Biological Relatives." Poster given at the Society for Research in Psychopathology, Indianapolis, Indiana. September 20, 2018.
3. "Statistical Methods for the Analysis of Ventilator-Free Days." Poster and presentation given at the Joint Statistical Meetings, Vancouver, Canada. July 28-August 2, 2018.

4. "A Review and Critique of Statistical Methods for the Analysis of Ventilator-Free Days." Presentation given at the Eastern North American Region meeting, Atlanta, Georgia. March 25-28, 2018.
5. "A Tale of Two Endophenotypes in Clinically Unaffected Relatives of Schizophrenia Patients." Poster given at the Society for Research in Psychopathology, Denver, Colorado. September 14, 2017.
6. "Targeted Treatment of a Genetic Mutation in Glycine Decarboxylase with D-cycloserine in Psychotic Disorders". Poster given at the Society for Research in Psychopathology, Denver, Colorado. September 14, 2017.
7. "A Tale of Two Endophenotypes in Clinically Unaffected Relatives of Schizophrenia Patients." Poster given at the International Congress on Schizophrenia Research, San Diego, California. March 25, 2017.
8. "Treatment Patterns and Impact of Race in Patients Receiving First-Line Therapy for Advanced Penile Squamous Cell Carcinoma (PSCC)". Poster given at the Genitourinary Cancers Symposium, Orlando, Florida. February 18, 2017.
9. "Assessing Traits as Endophenotypes in Clinically Unaffected Relatives." Poster given at McLean Hospital Research Day, Belmont, Massachusetts. January 18, 2017.
10. "Assessing Traits as Endophenotypes in Clinically Unaffected Relatives." Poster given at the Annual Meeting of the Society for Research in Psychopathology, Baltimore, Maryland. October 2, 2016.
11. "Tumor Response in Patients Receiving No Anti-Cancer Therapy: A Meta-Analysis with Incomplete Multinomial Regression." Presentation and poster given at the Joint Statistical Meetings, Chicago, Illinois. August 2, 2016.
12. "Meta-Analysis with Incomplete Multinomial Data: An Application to Tumor Response in Cancer Patients." Presentation given at the International Chinese Statistical Association Applied Statistics Symposium, Atlanta, Georgia. June 14, 2016.
13. "Is Poor Antisaccade Performance in Healthy First-Degree Relatives of Schizophrenics an Artifact of Study Design?". Poster presented at International Congress on Schizophrenia Research, Colorado Springs, Colorado. March 30, 2015.
14. "Is Poor Antisaccade Performance in Healthy First-Degree Relatives of Schizophrenics an Artifact of Study Design?". Poster presented at McLean Hospital Research Day. Belmont, Massachusetts. January 21, 2015.
15. "Is Poor Antisaccade Performance in Healthy First-Degree Relatives of Schizophrenics an Artifact of Study Design?" Presentation given at the International Chinese Statistical Association Applied Statistics Symposium, Portland, Oregon. June 16, 2014.
16. "Qualitative and Quantitative Thought Disorder Endophenotypes in Schizophrenia Research." Presentation given at the International Congress on Schizophrenia Research, Orlando, Florida. April 24, 2013.
17. "Qualitative and Quantitative Thought Disorder Endophenotypes in Schizophrenia". Poster presented at McLean Hospital Research Day. Belmont, Massachusetts. January 16, 2013.

18. "Assessing Liability for Schizophrenia through Behavioral Data: a Bayesian Finite Mixture Model Approach." Presentation given at the International Chinese Statistical Association Applied Statistics Symposium, Boston, Massachusetts. June 24, 2012.
19. "A Hierarchical Finite Mixture Model Approach for Detecting Schizophrenia Liability." Poster presented at the International Congress on Schizophrenia Research, Colorado Springs, Colorado. April 6, 2011.
20. "The Use of Mixture Distributions to Detect Schizophrenia Liability: A Hierarchical Finite Mixture Model Approach to the Analysis of Endophenotypes." Poster presented at the Annual Meeting of the Society for Research in Psychopathology, Seattle, Washington. October 7, 2010.
21. "The Use of Contrast-Enhancing Lesions to Predict Imminent Relapse: Validating Cutter's Rule." Poster presented at the Joint Statistical Meetings, Vancouver, British Columbia, Canada. August 2, 2010.
22. "The Use of Contrast-Enhancing Lesions to Predict Imminent Relapse: Validating Cutter's Rule." Presentation given at the University of Alabama at Birmingham Postdoctoral Research Day, Birmingham, Alabama. February 15, 2010.
23. "Detecting Schizophrenia Liability in Healthy First-Degree Relatives of Schizophrenics: A Finite Mixture Model Approach." Poster presented at the Joint Statistical Meetings, Washington, D.C. August 5, 2009.
24. "Modelling Lesion Counts Data in Multiple Sclerosis when Patients have been Selected for Baseline Activity." Presentation given at the International Chinese Statistical Association Applied Statistics Symposium, San Francisco, California. June 22, 2009.
25. "Modelling Lesion Counts Data in Multiple Sclerosis when Patients have been Selected for Baseline Activity." Poster presented at the University of Alabama at Birmingham Public Health Research Day, Birmingham, Alabama. April 9, 2009.
26. "Uncovering the Heritability of Schizophrenia: A Finite Mixture Model Approach." Poster presented at Harvard University Department of Statistics 50th Anniversary Celebration and Symposium, Cambridge, Massachusetts. October 26-27, 2007.
27. "A Comparison of Approximations for Logistic Regression." Presentation given at the Joint Statistical Meetings, Seattle, Washington. August 7-10, 2006.
28. "An Overview of Latent Class Analysis." Presentation given at the International Meeting of the Psychometric Society, Tillburg, The Netherlands. July 5-8, 2005.

Invited Seminars

1. "Power and Sample Size Calculation." Presentation given to Third Short Course on Strengthening Causal Inference in Behavioral Obesity Research, Office of Energetics, University of Alabama at Birmingham, Birmingham, Alabama. July 25, 2017.
2. "Power and Sample Size Calculation." Presentation given to Second Short Course on Strengthening Causal Inference in Behavioral Obesity Research, Office of Energetics, University of Alabama at Birmingham, Birmingham, Alabama. July 26, 2016.

3. "Careers in Industry and Government." Panel discussion at Ninth Annual National Alliance for Doctoral Studies in the Mathematical Sciences Field of Dreams Conference, Birmingham, Alabama. November 7, 2015.
4. "Basics of Study Design and Data Analysis." Presentation given to Resident Mentored Research Experience Track Workshop, Department of Anesthesiology, UAB, Birmingham, Alabama. August 29, 2015.
5. "Data Management: What You Need to Know." Presentation given to Clinical Trials Office / Center for Clinical and Translational Science Seminar Series, University of Alabama at Birmingham. December 4, 2014.
6. "Strategies to Mitigate Against Operational Bias in Adaptive Designs for Medical Device Trials." Discussant for Session at the Joint Statistical Meetings, Boston, Massachusetts. August 4, 2014.
7. "The Use of Lesions Discovered via MRI to Predict Imminent Relapse in Multiple Sclerosis: Validating the MRI Rule of Five." Presentation given to the Department of Statistics, University of Virginia, Charlottesville, Virginia. April 13, 2012.
8. "Assessing Thought Disordered Behavior Using Finite Mixture Models." Presentation given to the Department of Biostatistics, University of Alabama at Birmingham, Birmingham, Alabama. March 11, 2009.
9. "A Comparison of Approximations for Logistic Regression." Presentation given at the Institut für Arbeitsmarkt-und Berufsforschung, Nuremberg, Germany. July 12, 2005.

Other Presentations

1. "Introduction to Survival Analysis." Presented to University of Alabama at Birmingham, Graduate Biomedical Sciences 731: Introduction to Biostatistics. November 10, 2018.
2. "Clinical Trials at the Food and Drug Administration." Presented to University of Alabama at Birmingham, Biostatistics 725: Advanced Clinical Trials I. September 27, 2012.
3. "Hypothesis Testing, Power, and Sample Size." Presented to University of Alabama at Birmingham, Biostatistics 625: Design and Conduct of Clinical Trials. June 27, 2012.
4. "Longitudinal Data Analysis." Presented to University of Alabama at Birmingham, Biostatistics 613: Intermediate Statistical Analysis III. October 20, 2009.
5. "Proportional Odds Models and Ordinal Logistic Regression." Presented to University of Alabama at Birmingham, Biostatistics 613: Intermediate Statistical Analysis III. September 8 and 10, 2009.
6. "Basic Statistics in Clinical Trials." Presented to University of Alabama at Birmingham, Biostatistics 625: Design and Conduct of Clinical Trials. June 16, 2009.

Grant Proposal Reviews

The National Multiple Sclerosis Society <i>Ad Hoc Reviewer</i>	2012
Clinical Pilot Studies Program, The ALS Association <i>Ad Hoc Reviewer</i>	2012
Acute Neural Injury and Epilepsy study section, National Institutes of Health <i>Ad Hoc Reviewer</i>	2015
Neurological Sciences and Disorders special emphasis panel, National Institutes of Neurological Disorders and Stroke <i>Ad Hoc Reviewer</i>	2016, 2018, 2019
Detecting Cognitive Impairment special emphasis panel, National Institutes of Neurological Disorders and Stroke <i>Ad Hoc Reviewer</i>	2017

Ad Hoc Journal Reviews

American Journal of Clinical Nutrition, Biometrical Journal, Communication in Statistics, Journal of Gerontology, Multiple Sclerosis Journal, PLOS One, Statistics in Medicine

Continuing Education

“Applied Meta-Analysis Using R.” International Chinese Statistical Association Applied Statistics Symposium, Atlanta, GA. June 12, 2016.

“Power and Sample Size Computations.” Joint Statistical Meetings, Boston, MA. August 6, 2014.

“Data and Safety Monitoring Committees in Clinical Trials.” Joint Applied Statistics Symposium of the International Chinese Statistical Association and the Korean International Statistical Society, Portland, OR. June 15, 2014.

“2013 ENAR Workshop for Junior Investigators.” Eastern North American Region meeting, Orlando, FL. March 8-9, 2013.

“Device Development in Obesity and Metabolic Disease: Clinical and Outcomes Assessment.” Food and Drug Administration, Dartmouth Medical School, and Massachusetts General Hospital, Bethesda, MD. October 16-18, 2011.

“Comparative Effectiveness Research: Introduction and Methods.” Food and Drug Administration, Silver Spring MD. May 26, 2011.

“The Science of Small Clinical Trials.” Food and Drug Administration, Silver Spring MD. April-May 2011.

“Introduction to Medical Device Law.” Food and Drug Administration, Silver Spring, MD. March 14-16, 2011.

“Information-Theoretic Approaches to Empirical Science.” University of Alabama at Birmingham, Birmingham, AL. January 29, 2010.

“Meta Analysis.” Ohio State University, College of Public Health, Columbus, OH. July 20-24, 2009.

“Write Winning Grants.” Federation of American Societies for Experimental Biology, Bethesda, MD. June 19, 2009.

“Recent Developments in Practical Bayesian Methods for Clinical Trials.” International Chinese Statistical Association Applied Statistics Symposium, San Francisco, CA. June 21, 2009.

“Missing Data in Clinical Trials.” Lister Hill Center for Health Policy, University of Alabama at Birmingham, Birmingham, AL. December 12, 2008.

Teaching Experience

Harvard University, Department of Statistics 2006

Head Teaching Fellow. Helped manage large undergraduate course and led group of teaching fellows.

Statistics 110: Introduction to Probability (Dr. Joseph Blitzstein) 2006

Harvard University, Department of Statistics 2004-2007

Teaching Fellow. Taught weekly sections, met with students in weekly office hours, graded papers and examinations.

Statistics 110: Introduction to Probability (Dr. Jose H. Blanchet) 2004

Statistics 111: Introduction to Theoretical Statistics (Dr. S.C. Samuel Kou) 2005, 2007

Statistics 214: Causal Inference (Dr. Donald B. Rubin and Dr. Guido W. Imbens) 2005

Statistics 149: Introduction to Generalized Linear Models (Dr. Mark Irwin) 2006

Statistics 249: Intermediate Generalized Linear Models (Dr. Rima Izem) 2006

Statistics 104: Introduction to Quantitative Methods (Dr. Kenneth Stanley) 2007

University of Alabama at Birmingham, Department of Biostatistics 2012-present

Biostatistics 626: Data Management and Reporting with SAS 2012

Biostatistics 621: Statistical Methods I 2013

Biostatistics 665: Survival Analysis 2014-2019

Biostatistics 613: Intermediate Statistical Analysis III 2015