

Department of Biostatistics
School of Graduate Studies
Medical College of Georgia



Annual Report

July 1, 2006 – June 30, 2007

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Introduction

This document summarizes the activities of the Department of Biostatistics in the School of Graduate Studies of the Medical College of Georgia (MCG) for the period of July 2006 – June 2007. As part of the strategic initiatives and research mission of MCG, the Biostatistics Department was formed in 2003 as a full-fledged academic department from its previous status as the Office of Biostatistics, with strong emphasis in teaching, mentoring, and collaborative and methodological research. The Department is housed in the School of Graduate Studies. This unique setup is in recognition by MCG of the broad and vital role of biostatistics in multidisciplinary and translational research, crossing the boundaries of academic schools. We maintain strong collaborative relationships with departments and research centers in the Schools of Allied Health, Dentistry, Medicine and Nursing. As of June 30, the Department has seven primary and five joint faculty members, and two staff statisticians. Another new faculty, who has already been hired, is expected to start on January 1, 2008.

Mission

The overarching mission of the Biostatistics Department at MCG is to advance knowledge in the field of biostatistics, and to provide leadership and scholarship in research, teaching and mentoring for the advancement of biomedical science and improvement of human health. The mission is achieved by:

- Implementing high caliber graduate programs in biostatistics;
- Conducting original research to develop and evaluate biostatistical methodologies;
- Collaborating with investigators on biomedical research that requires biostatistics support.

The long-term goal for the Department is to become a nationally and internationally recognized department with strengths and competency in graduate training, collaborative research and methodological research. Moving toward this goal, we are recruiting faculty members with strong records of methodological and collaborative research in biostatistics and epidemiology. A masters program in Biostatistics was started in the Fall of 2006 with one part-time and seven full-time students in the first cohort. All full-time students are currently supported with graduate assistantships. A Masters and a Certificate program in Clinical and Translational Research was approved by the Board of Regents, and will start in the Summer 2008, and a doctoral program is slated to start in the Fall 2008. The Department also offers several courses, primarily catering to medical students, and pre- and post-doctoral trainees and junior faculty investigators in Biomedical, Clinical, Nursing and Public Health research.

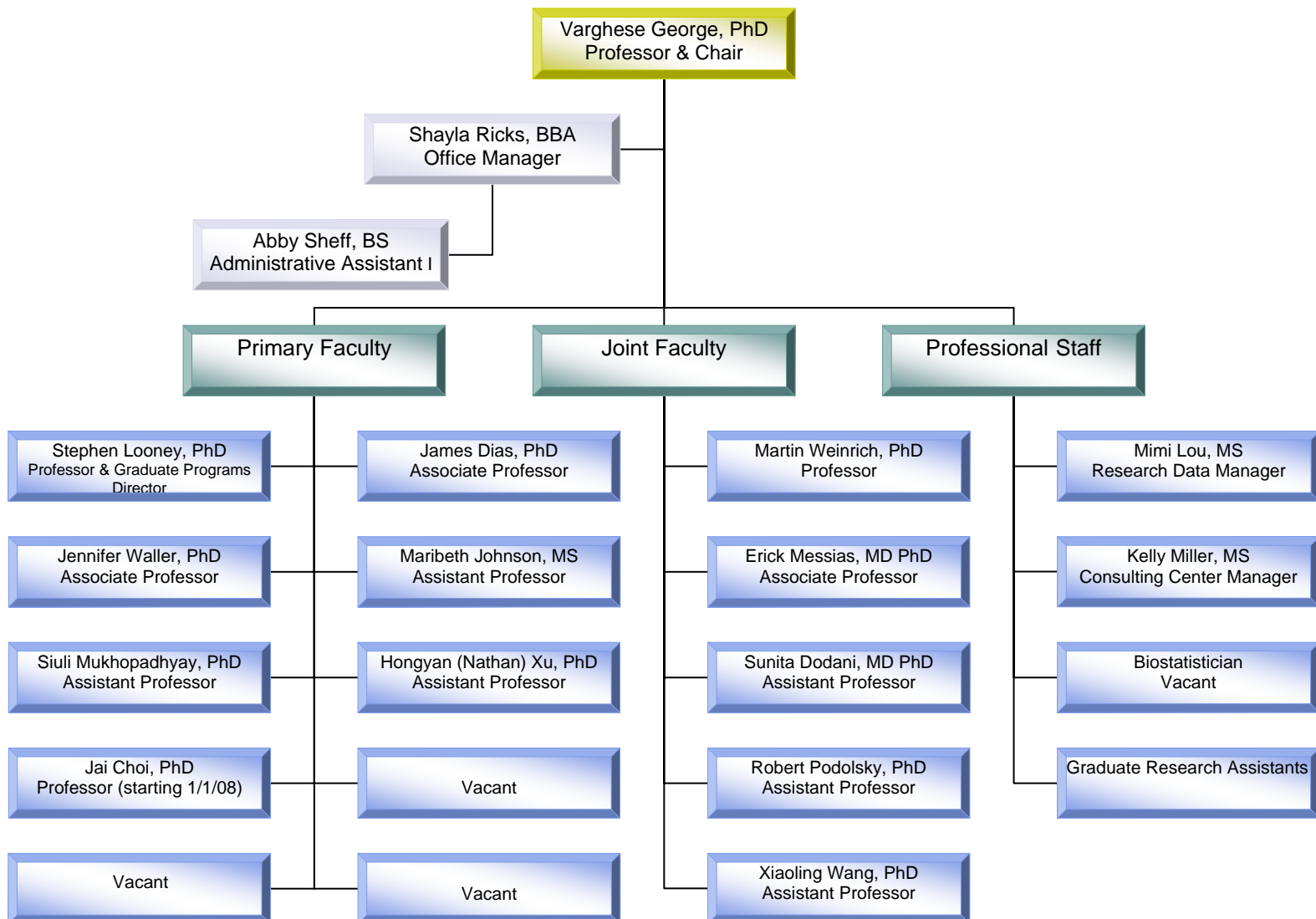
I should take this opportunity to express our utmost appreciation and gratitude to Drs. Gretchen Caughman (Dean, School of Graduate Studies), Barry Goldstein (Provost) and Dan Rahn (President) for their commitments, guidance and support for building a strong department. In the following pages we provide the details of our professional activities over the past year with the hope that it will provide a good idea of the breadth of our Department and our contributions.

Varghese George, Ph.D.



Professor & Chair

Organizational Chart as of June 30, 2006



Personnel Changes

- *Dr. Siuli Mukhopadhyay joined the Department in September 2006*
- *Dr. Sunita Dodani joined the Department as joint faculty in September 2006*
- *Dr. Erick Messias became a Joint Faculty Member in September 2006*
- *Shayla Ricks became the Office Manager in September 2006*
- *Abby Sheff joined the Department as Administrative Assistant I in October 2006*
- *Dr. Xiaoling Wang became a Joint Faculty Member in January 2007*

Research Achievements and Benchmarks

Research

The Department is actively involved in methodological and collaborative research, and has a strong applied research thrust. The Biostatistics faculty members have extensive experience in providing statistical support for NIH, NSF and private foundation grants. Collaborative research is conducted by serving as co-investigators in grant proposals and funded projects. The collaboration has resulted in substantial extra-mural funding support for the Department and many peer-reviewed publications. Methodological research by the Department is focused in the areas of statistical genetics and genetic epidemiology, statistical methods in bioinformatics, and clinical trials. These research projects have generated several peer-reviewed publications and the application of these methods will lead to further collaborative and methodological research. With the recruitment of at least two more new faculty members in the immediate future, we expect to expand the methodological and collaborative research, and to increase the funding support substantially.

As of the end of FY07, the combined non-RI funding level for the department was 4.75 FTE for 9 full-time professional faculty/staff, corresponding to 42% of the total personnel budget of the department.

Biostatistics Consulting Center

The Department has an active consulting service, provided through the Biostatistics Consulting Center (BCC). Ms. Kelly Miller serves as the Manager of BCC. We offer comprehensive statistical consulting for investigators within the Medical College, and from other academic institutions, government agencies and private industries. Specific services offered include assistance in grant proposal preparation, design of clinical trials, experimental design, survey design, determination of sample size requirements, randomization, data management, statistical modeling, data analysis and interpretation. The Medical College of Georgia investigators receive a 50% discount. The biostatistics faculty members have extensive experience in providing statistical support for NIH, NSF and private foundation grants.

Articles published or submitted for publication by Biostatistics Primary Faculty

Abreu A., Loza MA, Elias A, **Mukhopadhyay S**, Rueggeberg F (2007). Effect of metal type and surface treatment on in vitro tensile strength of copings cemented to minimally retentive preparations. *The Journal of Prosthetic Dentistry*. (Accepted)

Agee KA, Becker TD, Joyce AP, Rueggeberg FA, Borke JL, **Waller JL**, Tay FR, Pashley DH (2006): Net expansion of dried demineralized dentin matrix produced by monomer/alcohol saturation and solvent evaporation. *Journal of Biomedical Materials Research. Part A*. 79(2):349-58.

Awonuga AO, Merhi Z, Samuels TA, **Waller JL**, Pring D (2007): Anthropometric measurements in the Diagnosis of Pelvic Size: An Analysis of Maternal Height and Shoe Size and Computed Tomography Pelvimetric Data. *Archives of Gynecology and Obstetrics* (accepted).

Barbeau P, **Johnson MH**, Howe CA, Allison J, Davis CL, Gutin B, Lemmon CR (2007): MCG Exercise Project: Changes in body composition, visceral adiposity, and fitness in young black girls. *Obesity* (In Press).

Bassali R, **Waller JL**, Gower B, Allison J, Davis CL. Clinical utility of waist circumference percentile for cardiovascular risk evaluation in overweight children. *Archives of Pediatric and Adolescent Medicine* (submitted).

Becker TD, Agee KA, Joyce AP, Rueggeberg FA, Borke JL, **Waller JL**, Tay FR, Pashley DH. (2007): Infiltration/evaporation-induced shrinkage of demineralized dentin by solvated model adhesives. *Journal of Biomedical Materials Research. Part B, Applied Biomaterials*. 80(1):156-65.

Brackett MG, Drisko CL, Thompson AL, **Waller JL**, Marshall DL, Schuster GS. (2006): Penetration of fluids into periodontal pockets using a powered toothbrush/irrigator device. *Journal of Contemporary Dental Practice* 7:30-39.

Brackett WW, Tay FR, **Looney SW**, Ito S, Haisch LD, Pashley DH: The effect of subject age on microtensile bond strengths of a resin and a resin-modified glass ionomer adhesive to tooth structure. *Operative Dentistry*, in press.

Brackett WW, Tay FR, **Looney SW**, Ito S, Haisch LD, Pashley DH: Microtensile dentin and enamel bond strengths of recent self-etching resins. *Operative Dentistry*, in press.

Brown JA, **Looney SW**, Miller KM, Chenven C, Strup SE, Bagley D, Gomella LG: Hand-assisted laparoscopic nephroureterectomy (HALNU): An assessment of the impact of obesity in 50 procedures. *Journal of Laparoendoscopic & Advanced Surgical Techniques*, in press.

Chernecky C, Macklin D, **Waller, JL** (2006): Internet Design Preferences of Patients with Cancer. *Oncology Nursing Forum* 33:787-92.

Curtis J, Westfall A, Allison J, Bijlsma J, Freeman A, **George V**, Kovac S, Spettell C and Saag K (2006): A population based assessment of adverse events associated with chronic glucocorticoid use. *Arthritis Care and Research* 55:420-6.

Eason, L, **Waller, JL**, Geropharmacology: Home Remedy Use in Rural Adults. *Journal of Gerontological Nursing* (under review).

Elewa HF, Kozak A, **Johnson MH**, Ergul A, Fagan SC (2007): Blood pressure lowering after experimental cerebral ischemia provides neurovascular protection. *J Hypertens* 25:855-859.

Ergul A, Jupin D, **Johnson MH**, Prisant LM (2006): Elevated ET-1 Levels are Associated with Decreased Arterial Elasticity in Hypertensive Patients. *J. Clin. Hypertens* 8:549-554.

Fernandez-Egea E, Bernardo M, Heaphy C, Donner T, Parellada E, Esmatjes E, Conget I, **George V**, Stoppler H, Kirkpatrick B(2007): Telomere length, cardiovascular function and glucose metabolism in newly diagnosed drug-naïve patients with schizophrenia and related psychotic disorders. Submitted.

Gao LZ, **Xu H**. Comparisons of Mutation Rate Variation at Genome-wide Microsatellites: Evolutionary Insights from Two Cultivated Rice and Their Wild Relatives. *BMC Evolutionary Biology* (Submitted)

Gillespie WT, Loushine RJ, Weller RN, Mazzoni A, Doyle MD, **Waller JL**, Pashle DH, Tay FR (2006): Improving the Performance of EndoREZ Root Canal Sealer With a Dual-cured Two-Step Self-etch Adhesive. II. Apical and Coronal Seal. *Journal of Endodontics*. 32:771-5.

Gutin B, **Johnson MH**, Humphries MC, Hatfield-Laube JL, Kapuku GK, Allison J, Gower BA, Daniels SR, Barbeau P (2007): Relations of visceral adiposity to cardiovascular disease risk factors in black and white teens. *Obesity* (In Press).

Hashimoto M, Ito S, Tay FR, Sano H, Kaga M, **Waller, JL** Pashely DH. Permeability of adhesive resin films. *Journal of Dental Research* (under review).

Higgins TS, Ritchie CS, Stetson BA, Burke JD, **Looney SW** (2007): An examination of the moderating effect of treatment with anti-depressants on the association of heart disease with depression in males with Type 2 diabetes attending a Veterans Medical Center. *Diabetes Research and Clinical Practice* 75: 220-228.

Holmes RG, Rueggeberg FA, Callan RS, Caughman WF, Chan DNC, Pashley DH, **Looney SW**. Effect of solvent type and content on monomer conversion of a model resin system as a thin film. *Dental Materials*, in press.

Hou DY, Muller AJ, Sharma M, **Johnson MH**, Mellor AL, Prendergast GC, Munn DH (2007): Inhibition of IDO in dendritic cells by stereoisomers of 1-methyl-tryptophan correlates with anti-tumor responses. *Cancer Res* 67(2):792-801.

Kolanowski A, Fick D, **Waller JL**, Ahern F. (2006): Outcomes of Antipsychotic Drug Use in Community-dwelling Elders with Dementia. *Archives of Psychiatric Nursing* 20(5): 217-225.

Lazarchik DA, Hammond BD, Sikes CL, **Looney SW**, Rueggeberg FA. Hardness comparison of bulk filled/trans-tooth and incremental filled/occlusally irradiated composites. *The Journal of Prosthetic Dentistry*, in press.

Looney S, Drisko C. Letter to the Editor: Treatment of periodontal disease among pregnant women. *Journal of Periodontology*, in press.

Looney SW, Hagan JL. (2006): Challenges in the statistical analysis of biomarker data. In DeCaprio AP (ed.), *Toxicologic Biomarkers*, New York: Marcel Dekker, 17-38.

Looney SW, Hagan JL. Statistical methods for assessing biomarkers and for analyzing biomarker data. In Rao CR, Miller JP, Rao DC (eds.), *Handbook of Statistics: Epidemiology and Medical Statistics*, Amsterdam: Elsevier, in press.

Mainous RO, **Looney SW** (2007): A pilot study of changes in cerebral blood flow velocity, resistance, and vital signs following a painful stimulus in the premature infant. *Advances in Neonatal Care* 7(2): 88-104.

McKie K, Hanevold C, Hernandez C, **Waller J**, Ortiz L (2007): Prevalence, Prevention, and Treatment of Microalbuminuria and Proteinuria in Children With Sickle Cell Disease. *J Pediatr Hematol Oncol.* 29 (3):140-144.

Meeks S, Teri L, Van Haitsma K, **Looney S**. (2006): Increasing pleasant events in the nursing home: Collaborative behavioral treatment for depression. *Clinical Case Studies* 5: 287-304.

Meeks S, **Looney SW**, Van Haitsma K, Teri L. BE-ACTIV: A staff-assisted, behavioral intervention for depression in nursing homes. *The Gerontologist*, in press.

Meeks S, Young CM, **Looney SW**. Activity participation and affect among nursing home residents. *Aging and Mental Health*, in press.

Monticelli F, Sadek FT, Schuster GS, Volkmann KR, **Looney SW**, Ferrari M, Toledano M, Pashley DH, Tay FR (2007): Efficacy of two contemporary single-cone filling techniques in preventing bacterial leakage. *Journal of Endodontics* 33, 310-313.

Toledano M., Pashley DH, Tay FR (2007). Efficacy of Two Contemporary Single-Cone Filling Techniques in Preventing Bacterial Leakage, *Journal of Endodontics*, 33, 310-313.

Mukhopadhyay, S., Khuri, A.I. (2007): Bias in Multivariate Generalized Linear Models. Submitted.

Mukhopadhyay, S., Khuri, A.I. (2007): Comparison of Designs for Multivariate Generalized Linear Models. *Journal of Statistical Planning and Inference*. In Press.

Ogbureke KUE, Nikitakis NG, Warburton G, Ord RA, Sauk JJ, **Waller JL**, Fisher LW. (2007): Up-regulation of SIBLING proteins and correlation with cognate MMP expression in oral cancer. *Oral Oncol.* (in press).

Pienkos TE, Morris WJ, Gronet PM, Cameron SM, **Looney SW**. (2007): The strength of multiple major connector designs under simulated functional loading. *Journal of Prosthetic Dentistry* 97, 299-304.

Prasad S, Shah R, Khanal S, Dudar B, **Dias J**, Mandawat M, Kapoor D, Thornton J, Calkins J, Robinson V: Is Left Ventricular End-Diastolic Pressure (LVEDP) an Accurate Surrogate Of The Pulmonary Artery Wedge Pressure (PAWP)? *American Journal of Cardiology* (Submitted).

Prisant LM, Lobel, DH, **Waller JL** (2006): Arterial Elasticity and Erectile Dysfunction in Hypertensive Men. *J Clin Hypertension* 8:768-74.

Prisant LM, Mehta P, Arora V, Gentry M, **Waller JL** (2006): Relationship between glycosylated hemoglobin and arterial elasticity. *Preventive Cardiology* 9:160-165.

Rempala G, Looney S. (2006): Asymptotic properties of a two sample randomized test for partially dependent data. *Journal of Statistical Planning and Inference* 136, 68-89.

Rogers LQ, Gutin B, Humphries, M, Lemmon, CR, **Waller, JL**, Baranowski, T, Saunders, R. (2006): Evaluation of internal medicine residents as exercise role models and associations with self-reported counseling behavior, confidence, and perceived success. *Teach Learn Med* 18:215-221.

Robinson VJB, Patel RN, Nalamolu VRP, Kaminski RJ, **Dias JK**, Thornton J, Mandawat M, Kersey TW. Encircling Reperfusion Pattern on the Stress Minus Delay Bull's-eye Map Improves Sensitivity of Myocardial Perfusion Scans. *American Journal of Roentgenology* (Submitted).

Shah R, Thakore H, **Dias J**, Landolfo C: Are Women with Osteoporosis at Risk for Coronary Heart Disease? *J. Am. Heart Assoc.* (Submitted).

Sharma S, Sharma MC, **Johnson MH**, **Lou M**, Thakar A , Sarkar C (2007): Esthesioneuroblastoma – A Clinicopathologic Study, Prognostic Reappraisal and Role of DNA Topoisomerase Alpha. *Pathology and Oncology Research*. 13:123-129.

Shekhawat PS, Sonne S, Matern D, Bennett MJ, Boriack R, **George V**, **Xu H**, Prasad P, Roon P, Ganapathy V. Spontaneous development of intestinal and colonic atrophy and inflammation in carnitine-deficient jvs (OCTN2-/-) mice. *Molecular Genetics and Metabolism*, In Press

Speck BJ, Hines-Martin V, Stetson BA, **Looney SW**. An environmental intervention aimed at increasing physical activity in low-income women. *Journal of Cardiovascular Nursing*, in press.

Speck BJ, **Looney SW**. (2006): Self-reported physical activity validated by pedometer: A pilot study. *Public Health Nursing* 23, 88-94.

Stallman-Jorgensen IS, Gutin B, Hatfield-Laube JL, Humphries MC, **Johnson MH**, Barbeau P (2007): General and visceral adiposity in black and white adolescents and their relation with reported physical activity and diet. *Am J of Clin Nut* (In Press).

Tan YD, Fornage M, **George V**, **Xu H**. (2007): Parent-child Pair Design for Detecting Gene-Environment Interactions in Complex Diseases. *Human Genetics* 121: 745-757

Terry AV, Gearhart DA, Warner S, Zhang G, Bartlett M, Middlemore JL, Mahadik SP, **Waller JL**. (2007) Oral Haloperidol or Risperidone Treatment in Rats: Temporal Effects on Nerve Growth Factor Receptors, Cholinergic Neurons, and Memory Performance. *Neuroscience* (accepted).

Terry Jr AV, Gearhart DA, Mahadik SP, Warsi S, and **Waller JL** (2006): Chronic Treatment with First or Second Generation Antipsychotics in Rodents: Effects on High Affinity Nicotinic and Muscarinic Acetylcholine Receptors in the Brain. *Neuroscience* 140:1277-87.

Tiwari HK, Beasley TM, **George V**, Allison DB (2006): Multifactorial Inheritance and Complex Diseases, In "*Principles and Practices of Medical Genetics, 5th Ed.*", Eds: Rimoin, Connor, Pyeritz & Korf. Elsevier, Philadelphia, PA, pp 299-306.

Wells B, Andres R-A, Gentry M, **Dias J**, Landolfo C: The Relationship between Body Mass Index and Clinical Outcomes in Acute Myocardial Infarction. *American Heart Journal* (In Press).

White CB, **Waller JL**, Freed G, Levine DA, Moore RS, Sharkey A, Greenberg, L. (2007): The state of undergraduate pediatric medical education in North America: the COMSEP survey. *Teaching and Learning in Medicine*, 19 (in press).

Xu H, **George V** (2007): A new transmission test for affected sibpair families. *BMC Genetics* (In Press)

Xu H, Shete S. (2006): Mixed-effects logistic approach for association following linkage scan for complex disorders. *Annals of Human Genetics* 71:230-237

Zhang K, Wiener H, Beasley TM, **George V**, Amos CI, Allison DB (2006): An empirical Bayes method for updating inferences in analysis of quantitative trait loci using information from related genome scans. *Genetics* 173:2283-96.

Presentations by Biostatistics Primary Faculty

Adamkiewicz T, Abboud MR, Barredo JC, Kirby-Allen M, Alvarez OA, Casella JF, Iyer RV, McKie V, Woods GM, Kutlar A, Paley C, Peterson J, Rackoff E, Merelles-Pulcini M, Dackiw E, Stegenga K, Odo N, **Lou M**, Adams RJ. Serum ferritin in children with sickle cell disease on chronic transfusion: measure of iron overload or end organ injury? The STOP/STOP II liver iron ancillary study. *American Society of Hematology, 48th Annual Meeting*. Orlando, FL, 2006

Adams RJ, Nelson E, Lezcano PhD, Odo N, Kutlar A, **Lou M**, Brambilla D. Soluble Vascular Cell Adhesion Molecule Levels in Children with Sickle Cell Disease are Reduced with Regular Blood Transfusion. *International Stroke Conference*. 2007

Barbeau P, Howe CA, **Johnson MH**, **Lou M**, Zhu H, Pollock JS, Dong Y. Interaction of Cardiovascular Fitness with Endothelin Receptor A Gene on Plasma Endothelin-1 in Black Children. *American College of Sports Medicine, 54th Annual Meeting*. New Orleans, LA, 2007

Bassali R, **Waller JL**, Gower B, Boyle CA, Davis CL. Clinical utility of waist circumference for cardiovascular risk evaluation in overweight children. Abstract accepted for poster presentation to Pediatric Academic Societies, San Francisco, 2006.

Bundy V, Barbeau P, **Johnson, MH**. 2006. Effect Modification Investigation Using SAS[®] – A Model Building Exercise. *Proceedings of the SouthEast SAS Users Group, Atlanta, October 2006*.

Bundy V, Barbeau P, **Johnson, MH**. 2007. Effect Modification Investigation Using SAS[®] – A Model Building Exercise. *Proceedings of SAS Global Forum 2007, Orlando, April 2007*.

Easom, L, **Waller, JL**. Gerontological Society of America National Conference, 2006. Folk Home Remedy Use in Rural Adults.

Elgebaly M, Portik-Dobos V, Sachidanandam K, Rychly D, Malcom D, Hutchinson JR, **Johnson MH**, Ergul A. Differential Effects of ETA vs. ETB Receptor Antagonism on Oxidative Stress and Total Antioxidant Status in Type-2 Diabetes. *60th AHA High Blood Pressure Council Meeting*, San Antonio, TX. 2006

Hodo D, Fick DM, Martindale R., **Waller JL**. Medication Use Following Bariatric Surgery in a Managed Care Cohort. Academy Health Annual Research Meeting, 2006.

Johnson MH. Individual Growth Analysis using PROC MIXED. *Proceedings of the SouthEast SAS Users Group, Atlanta, October 2006*

Johnson MH. Symmetrized percent change for treatment comparisons. *Medical College of Georgia Department of Biostatistics Journal Club, October 2006*.

Johnson MH. The Effect of Missing Data on Repeated Measures Models. *Medical College of Georgia Department of Biostatistics Seminar Series, November 2006*.

Laird MD, Bergeron MF, Marinik EL, Brenner JS, **Lou M**, **Waller JL**. Physiological strain and perceptual differences during repeated-bout exercise in the heat. *American College of Sports Medicine, 54th Annual Meeting*. New Orleans, LA, 2007

Looney SW. Teaching Research Design to Health Sciences Professionals, invited paper presented at 2007 Joint Statistical Meetings, Seattle, WA, August, 2006. Also published in *2006 Proceedings of the American Statistical Association*, pp. 3936-3941.

Looney SW, Jones PW. A Two-Sample Method for Analyzing Combined Samples of Correlated and Uncorrelated Data, MCG Department of Biostatistics Seminar Series, October 2006.

Lou M. Transferring vs. Transporting Between SAS[®] Operating Environments. *SouthEast SAS User Group, 14th Annual Conference*. Atlanta, GA, 2006 (Published in the Proceedings of the SouthEast SAS User's Group 2006 Conference).

Meeks S, Teri L, Van Haitsma K, **Looney S** Increasing Pleasant Events in the Nursing Home: Collaborative Behavioral Treatment for Depression, winter meeting of the Georgia Chapter of the American Statistical Association, Augusta, GA, January, 2007.

Mukhopadhyay S. Optimization in Multivariate Generalized Linear Models. ENAR Spring Meeting, Atlanta, GA, March 2007.

Patel SV, Reingold JL, **Lou M, Miller KM, Looney SW**, Nichols III FT, Hall CE. The Effects of Hyperglycemia on the Clinical Outcome After Intracerebral Hemorrhage (ICH). *Neurocritical Care Society, 4th Annual Meeting*. Baltimore, MD, November 2006

Reingold JL, Patel SV, **Miller KM, Lou M, Looney SW**, Nichols III FT, Hall CE. Use of the Hemphill ICH Scale in Southeastern Stroke Belt Patients. *Neurocritical Care Society, 4th Annual Meeting*. Baltimore, MD, November 2006

Tingen MS, Andrews JO, **Waller JL**. Impact of adherence to CDC guidelines for preventing tobacco use on student and parent smoking rates and psychosocial variables. Society for Research on Nicotine and Tobacco, 2006.

Waller JL. The SouthEast SAS User's Group 2006 Conference. Atlanta, GA, October 8-10, 2006. Many to One Using a SAS® DATA Step and PROC MEANS. Published in the Proceedings of the SouthEast SAS User's Group 2006 Conference.

Professional Meetings attended by Biostatistics Primary Faculty

- George** Joint Statistical Meetings, Seattle, WA, August, 2006
IISA Joint Statistical Meetings & International Conference, Cochin, India
January, 2007
Biometric Society Eastern North American Society Annual Meeting, Atlanta, GA,
March 2007.
- Johnson:** SouthEast SAS® Users Group, Atlanta, GA, October 2006
SAS Global Forum, Orlando, FL, April 2007
- Looney:** 23rd International Biometric Conference Satellite Meeting, "Statistical and
Epidemiological Methods for Oral Health Research," Montreal, Canada, July, 2006
Joint Statistical Meetings, Seattle, WA, August, 2006
Thirteenth Annual Biopharmaceutical Applied Statistics Symposium, Savannah, GA,
November 6, 2006
Biometric Society Eastern North American Society Annual Meeting, Atlanta, GA,
March 2007.
- Lou:** SouthEast SAS® Users Group Conference, Atlanta, GA, October 2006
SAS Global Forum, Orlando, FL, April 2007
- Miller:** SouthEast SAS® Users Group Conference, Atlanta, GA, October 2006
SAS Global Forum, Orlando, FL, April 2007
- Mukhopadhyay:** International Genetic Epidemiology Society Annual meeting, November, 2006.
Biometric Society Eastern North American Society Annual Meeting, Atlanta, GA,
March 2007.

Waller: SouthEast SAS® Users Group, Atlanta, GA, October 2006
SAS Global Forum, Orlando, FL, April 2007

Xu: Genetic Analysis Workshop 15, November, 2006
International Genetic Epidemiology Society Annual meeting, November, 2006

Funded Grants with Biostatistics Primary Faculty as PI/Co-I

<i>Biostat Faculty</i>	<i>PI/ Department</i>	<i>Title</i>	<i>Agency</i>	<i>Total Direct Cost</i>	<i>Funding Period</i>
George	V George Biostatistics	Biostatistics Core: Program Project on Stress-related Mechanisms of Hypertension Risk in Youth (PI: G Harshfield)	NHLBI	\$7,027,802	2006-2008
George Looney	F Treiber VP For Research	MCG's Clinical and Translational Research Transformation	NIH	\$236,275	2006-2007
George Lou	B Kirkpatrick Psychiatry	Diabetes in Neuropsychiatric Disorders	NIH	\$1,125,000	2005-2010
George Xu	H Xu Biostatistics	Effects of Population Structure on Genetic Association Studies	MCG STP	\$375,000	2006 - 2009
Johnson	Paule Barbeau GPI/Pediatrics	Medical College of Georgia FitKid Project	NIH	\$2,395,985	2002-2007
Johnson	Paule Barbeau GPI/Pediatrics	APEX: Adiposity Prevention by Exercise in Black Girls	NIH	\$2,328,375	2000-2006
Johnson	Adviye Ergul Physiology and Endocrinology	Vascular Protection and Endothelin B Receptors in Diabetes	NIH	\$900,000	2005-2009
Johnson	Susan Fagan UGA Clinical Pharmacy	Vascular Protection in Acute Ischemic Stroke	NIH	\$41,274 (Subcontract)	2003-2006
Johnson	Greg Harshfield GPI/Pediatrics	PPG: Exercise Impact on Reactivity and BP Risk Factors, Project 3	NIH	\$7,027,802	2002-2007
Johnson	Greg Harshfield GPI/Pediatrics	Impaired Sodium Regulation in Obese Youth	NIH	\$994,125	2003-2007
Johnson	Vernon Barnes GPI/Pediatrics	Impact of LifeSkills Training on Blood Pressure in Youth	NIH	\$200,000	2007-2009
Johnson	Puttur Prasad OB GYN	Serotonin in Utero-Placental Unit & Genesis of Postpartum Depression	MCG IRP	\$25,000	2007-2008
Looney	C Drisko SOD	Nobel Biocare Center of Excellence	Nobel Biocare AB	\$6,208,115	2006-2011

<i>Biostat Faculty</i>	<i>PI/ Department</i>	<i>Title</i>	<i>Agency</i>	<i>Total Direct Cost</i>	<i>Funding Period</i>
Waller	J Andrews Nursing	A Social Support Intervention for Low-Income African American Women Who Smoke	American Legacy Foundation	\$100,000	2005-2006
Waller	AV Terry Clinical Pharmacy (UGA)	Antipsychotics: Temporal Effects on Cognitive Function	NIH	\$1,111,980	2003 -2007
Waller	DH Pashley Dentistry	Determinants of the Durability of Resin-Dentin Bonds	NIH	\$1,429,200	2003- 2007
Waller	DH Pashley Dentistry	Reasons for Poor Durability of Resin-Dentin Bonds	NIH	\$1,850,549	2004– 2009
Waller	C Davis GPI	Exercise Dose and Insulin Sensitivity in Obese Children.	NIH	\$428,242	2003 – 2007
Waller	C Davis GPI	Exercise and Overweight Children’s Cognition and Achievement	NIH	\$374,225	2005-2007
Waller	DM Fick Penn State U	Delirium in Persons with Dementia	NIH	\$100,000	2006-2008
Waller	J Switzer Neurology	Alterations in matrix metalloproteinases in acute stroke predict poor outcome in diabetics	MCG STP	\$300,000	2006-2007
Waller	K Ogbureke Dentistry	SIBLING family of protein in oral cancer transition	MCG STP	\$375,000	2006-2007
Waller	C Davis GPI	Effects of exercise on brain function and sleep-disordered breathing symptoms in overweight children	MCG STP	\$100,000	2006-2007
Waller Lou	D Hess Neurology	Minocycline to Improve Neurologic Outcome	NIH	\$1,175,280	2007–2010

Grants under Review with Biostatistics Primary Faculty as PI/Co-I
(Funded, starting in FY08)*

<i>Biostat Faculty</i>	<i>PI/Department</i>	<i>Title</i>	<i>Total direct costs</i>	<i>Agency</i>
Dias	S Dodani SON	Physical Activity Interventions in African-Americans community: Improving Dissemination	\$750,000	NIDDK 2008-2010
Dias	A Pearson-Shaver Tele-Medicine	Peripheral Temperature Gradient Assessment in Remote Evaluation of Children with Hemodynamic Compromise	\$275,000	NHLBI 2008-2009
Dias* Lou	R Sattin Emergency Medicine	HIV Screening	\$400,000	CDC & GA
Dias* Lou	P Sodomka Center for Patient & Family Centered Care	Using an Electronic Personal Health Record to Empower Patients with Hypertension	\$1,181,369	AHRQ 2007-2009
George	S Dodani SON	Sub-Clinical Coronary Artery Disease in South Asian Immigrants	\$254,580	NIH
George	A Kutlar Medicine	Comprehensive Sickle Cell Center: Mu Opioid Polymorphisms as Genetic Modifiers in SCD		NIH 2008-2013
George Johnson	Carlos Isaales Medicine/Endocrinology	Mechanisms of Age-dependent Progenitor Cell Dysfunction Mediating Bone Loss (PPG)	\$7,076,480	NIH 2007-2012
George Johnson Xu Lou	V George Biostatistics	Biostatistics Core: Stress Related Mechanisms of Hypertension in Youth (PPG PI: G Harshfield)	\$8,725,325	NIH 2007-2012
George Xu	H Xu Biostatistics	Association Study of Stroke Risk in an Admixed Population of African Americans	\$250,000	NIH 2008-2010
Johnson*	David Munn IMMAG	Role ofIDO in malignancy	\$1,125,000	NIH 2007-2012
Looney*	Suzanne Meeks Univ. of Louisville	A Behavioral Intervention for Depression in Nursing Homes	\$375,000	NIMH
Looney*	K Ogbureke Dentistry	SIBLING family of protein in oral cancer transition	\$625,000	NIH

<i>Biostat Faculty</i>	<i>PI/Department</i>	<i>Title</i>	<i>Total direct costs</i>	<i>Agency</i>
Looney	S Hsu Oral Biology	Identification of early-detection biomarkers associated with PTSD-modulated autoimmune diseases using proteomic technology	\$150,000	DOD
Looney	D Young-Hyman GPI	Pilot Study for Treatment and Weight Concerns in Type I Diabetes (TaWC)		ADA
Mukhopadhyay	A. Balan	Facilitation of swallowing in stroke: Neuromuscular Electrical Stimulation (NMES) vs. Standard Dysphagia Therapy (SDT).		AHA
Waller	C Davis GPI	Exercise and Overweight Children's Cognition	\$2,435,845	NIH
Waller	A Terry Pharmacology	Antipsychotics, Temporal Effects on Cognitive Function	\$1,250,000	NIH
Waller	Mozaffari, M Oral Biology	Is chromium picolinate renoprotective in diabetes?	\$275,000	NIH
Waller	Andrews, J Nursing	A Social Ecological Based, Multilevel Smoking Cessation Intervention in Public Housing Neighborhoods	\$1,766,842	NIH
Waller	D Hess Neurology	MPC Multistem in Acute Ischemic Stroke	\$1,862,739	NIH
Waller	S Goggans Internal Medicine	Use of a stroke risk factor index to identify stroke patients in a managed care data base	\$25,000	MCG/IRP
Waller	D Ferris Family Medicine	Opinions, Beliefs, and Attitudes of Minority Populations Toward the HPV Vaccine	\$67,428	GA Dept of Community Health
Waller	Mellinger/Bittner	Assessment of Gastrostomy Closure in Natural Orifice Transluminal Endoscopic Surgery	\$19,790	NOSCAR
Waller	M Mozaffari	Is Postconditioning Renoprotective?	\$25,000	MCG/IRP
Waller	Tingen/Ownby GPI and Medicine	Promoting Asthma Wellness in Rural Communities	\$804,942	NIH

Grants applied for but not funded with Biostatistics Primary Faculty as PI/Co-I

<i>Biostatistics Faculty</i>	<i>PI/Department</i>	<i>Title</i>	<i>Agency</i>
Dias	N Lane Emergency Medicine	Critical Self Identifying Information (CSII): Identification and Development of a Tool to Improve the Reunification of Children with their Caregiver	HRSA
Dias	M Renuka Pediatric Critical Care	High vs. Low Dose Steroids in Acute Asthma	MCG
Dias	P Wagner Family Medicine	Maintenance of Exercise Health Behaviors	NIH
Dias Lou	V Robinson Cardiology	The Role of a "Provoked D-dimer" Test in Improving the Diagnostic Test Performance	NIA
George	K Bhalla Cancer Center	HSP 90 Antagonist-based Therapy of Mantle Cell Lymphoma	LRF
George	K Bhalla Cancer Center	Heart Stroke Protein 90 Antagonist-based Therapy of Mantle Cell Lymphoma	NCI
George	W Hill Cell Bio & Anatomy	Effects on Mesenchymal Stem Cells and Bone Homeostasis in Aging.	NIH
Johnson	Paule Barbeau GPI/Pediatrics	The MCG FitKid Project II	NIH
Johnson	Paule Barbeau GPI/Pediatrics	Active Around Augusta	NIH
Johnson	Paule Barbeau GPI/Pediatrics	The Junior League Physical Activity Project for Youths	NIH
Johnson	Susan Fagan UGA Clinical Pharmacy	Neurovascular consequences of hypertension after stroke	NIH
Johnson	Peggy Wagner Family Medicine	Validation of an Instrument to assess Cultural Competency through Detection of Implicit Bias	NIH
Johnson	Puttur Prasad OB GYN	Study to compare circulating IL-1 beta levels in serum before and after delivery and correlate SERT allele in control and women with postpartum depression	HRSA
Looney Lou	B Kirkpatrick Psychiatry	Paternal Age and Mortality	NICHD
Looney Miller	Cynthia Chernecky School of Nursing	Assessing Lung Cancer Symptoms With Diagnosis As The Outcome	Oncology Nursing So. Foundation
Mukhopadhyay	A Balan	Facilitation of swallowing in stroke: Neuromuscular Electrical Stimulation (NMES) vs. Standard Dysphagia Therapy (SDT).	AHA
Mukhopadhyay Lou	R Adams Neurology	Relationship of Endothelin to Stroke Risk in Sickle Cell Disease.	NIH

Waller	J Mailhout Dentistry	Survival rate of dental implants in post-menopausal women	Osseointegration Foundation
Waller	J Mailhout Dentistry	Survival rate of dental implants in post-menopausal women	NIH
Waller	M Bergeron Physical Therapy	Reducing thermal strain and heat injury risk in youth sports	NIH/CDC
Waller	J Buccafusco Pharmacology	Treatment Strategies Limiting Acute and Chronic Toxicity to Nerve Agent Exposure	NIH
Waller Lou	MS Tingen GPI	The Sun-Safe study	MCG STP

Biostatistics Consulting Center Projects

<i>Biostatistics Faculty</i>	<i>PI/Department</i>	<i>Title</i>
Dias	P Sodomka / R Cibirka Administration	Factor Analysis of the PFCC Survey of MCG Personnel
Dias	V Robinson / R Patel Cardiology	Encircling reperfusion statistical analyses including diagnostic tests performance and ROC curves
Dias Lou	Yousuf M. Khalifa Ophthalmology	Virtual Reality in Ophthalmology Training, Follow-up to previous year consult
Dias Miller	E Jarvis / C Cherneckey SON	Identifying knowledge barriers in educating nurses about valve connectors of venous access devices
Dias	Bolanle Asiyabola Surgery, Hospital of St Raphael	Retrospective power analysis
Dias Lou	Ann Jinks and Corey Peterson Nurse Anesthesia	Survey of music in operating room
George Lou	Brian Kirkpatrick Psychiatry	Risk Factors in Schizophrenia
George Lou	R Adams, T Adamkiewicz Neurology	The STOP/STOP II liver iron ancillary study
George Lou	R Adams Neurology	Soluble Vascular Cell Adhesion Molecule Levels in Children with Sickle Cell Disease are Reduced with Regular Blood Transfusion
George Lou	R Adams Neurology	HYRETRO ANALYSIS: Methods to determine comparison group of untreated STOP subjects
George Lou	R Adams Neurology	TCD comparison in MCG Cohort data and STOP/STOPII
George Lou	R Adams Neurology	MRI/MRA/TCD study in STOP/STOP II
George Lou	P Barbeau GPI/Pediatrics	Interaction of Cardiovascular Fitness with Endothelin Receptor A Gene on Plasma Endothelin
George Miller	Steve Johnson / Norm Chutkan, Department of Orthopedics	CT analysis of C1 lateral mass size at mid ring for 3.5 mm screw fixation

<i>Biostatistics Faculty</i>	<i>PI/Department</i>	<i>Title</i>
George Miller	Lauren Yancey and Bala Ambati, Department of Ophthalmology	Sequestration of PDGF by the plasmid intraceptor should reduce angiogenesis in models such as corneal neovascularization and in human tumor models
George Xu	P Shekhawat Pediatrics	Meta analysis of association between IBD5 locus and incidence of Crohn's Disease
Johnson Lou	Kim, Lewis and Terris/ Urology	Significance of Prostate Volume in Determining Efficacy of Saturation Prostate Biopsy After Previous Negative Standard Biopsies
Johnson Lou	Torres, Lane Emergency Medicine	Double blind trial to study to determine whether oral prochlorperazine is superior to oral ibuprofen.
Johnson Miller	Garvin/Narsavage School of Nursing	Identification of Biomarkers Available on COPD In-hospital Records
Johnson Miller	Brown Urology	Assessment of impact of preoperative endorectal MRI staging on neurovascular bundle sparing aggressiveness at prostatectomy and subsequent radical prostatectomy positive surgical margin rate.
Johnson Miller	Wilde Emergency Medicine	Resource Utilization in the Emergency Department Evaluation of Flu-Like Illness in Children
Johnson Lou	Sharma Pathology	Reanalysis for manuscript resubmission
Johnson Lou	Christina Kozycki / Ted Kuhn Emergency Medicine	Community perception survey of indoor residual spraying with lambda cyhalothrin
Johnson	Prasad OB GYN	Serotonin and Post-partum depression
Johnson	Munn IMMAG	IDO and malignancy
Johnson	Chisholm UGA Clinical Pharmacy	Levels of Co-pay and compliance with medications
Johnson	Elagby/Ergul Physiology and Endocrinology	AHA fellowship grant
Johnson	Barnes GPI	Pilot data analysis for future grant application (MB-EAT)
Johnson	Fagan UGA Clinical Pharmacy	Neurovascular consequences of hypertension after stroke
Looney Miller Lou	C Hall Neurology	The effects of hyperglycemia on the clinical outcome after intracerebral hemorrhage (ICH)
Looney Miller Lou	C Hall Neurology	Use of the Hemphill ICH scale in southeastern stroke belt patients
Looney Lou	C Hall Neurology	Measurement accuracy and decision-making for intracerebral hemorrhage
Looney Lou	C Hall Neurology	Cardiac arrest resuscitation database
Looney Miller	J Brown Urology	Hand-assisted laparoscopic nephroureterectomy (HALNU): an assessment of the impact of obesity in 50 procedures
Looney Lou	Sara Young Family Medicine	Central obesity as a potentially modifiable risk factor for cognitive decline

<i>Biostatistics Faculty</i>	<i>PI/Department</i>	<i>Title</i>
Looney Miller	James Condon Health Informatics	Acute Myocardial Infarction and Race, Sex, and Insurance Types: Unequal Processes of Care
Looney	Peggy Wagner Family Medicine	TEACH: Tailoring to Enhance Patient Activation and Control of Hypertension
Mukhopadhyay Lou	McGregor Lott Ophthalmology	Regression of Neovascularization After Intravitreal Injection of Bevacizumab
Mukhopadhyay Miller	Demica Jackson Nursing	Barriers to Breast Cancer Screening Practices of Minority Women: A Nursing Intervention
Mukhopadhyay Lou	Piotr Kraj CBGM	Statistical analysis for comparing T cell receptor repertoires in control, draining lymph nodes and tumor tissue from mice injected with tumor cells.
Mukhopadhyay Miller	John Morgan Neurology	The Prevalence of Restless Leg Syndrome and Depression in a Biracial Primary Care Practice
Mukhopadhyay Lou	John Fisher Infectious Disease	The Clinical Significance of Candidal Casts in Candidemia and Candiduria
Mukhopadhyay Miller	Matthew Lyon Emergency Medicine	Comparison of DVD video to compress video ultrasound video review
Mukhopadhyay Lou	Melissa Davis Pediatrics	The Impact of Reach Out and Read Intervention in Pediatric Continuity Clinic
Mukhopadhyay Miller	McGregor Lott Ophthalmology	Intravitreal Ranibazumab for Polypoidal Choroidal Vasculopathy
Waller Miller	Denise Hodo / Steve Goggans Internal Medicine	Retrospective chart review: Determine differences in adherence to specific treatment guidelines for pneumonia between hospitalist physicians and teaching team physicians
Waller	Dustin Calhoun / Phillip Coule Emergency Medicine	Evaluation and comparison of TK use for hemorrhage control - to determine relative and overall efficacy of various TK models (commercial and improvised) for prehospital hemorrhage control.
Waller	Emily Howell Orthodontics	Dimensional changes of the initial phase of the Damon System
Waller	Donna Fick / Ann Kolanowski Penn State University	Antipsychotic Medication Use in Persons with Delirium Superimposed on Dementia
Waller	Sean Francis OB/GYN	Vaginal Volume study
Waller	Cesar Arrais Oral Biology	Effect of curing mode on the polymerization characteristics of dual-cured resin cement systems
Waller	John Blalock Oral Rehabilitation	Effect of temperature on uncured composite film thickness
Waller Miller	Fred Rueggeberg Oral Biology	Biological effects of near UV radiation from dental light curing sources.
Waller	Katie McKie Pediatrics	Prevalence, Prevention, And Treatment Of Microalbuminuria And Proteinuria In Children With Sickle Cell Disease
Waller Lou	Marie Collins Dental Hygiene	Document characteristics and workload of baccalaureate dental hygiene faculty through mail survey.
Waller Miller	Debra Smith Nursing	Increase participants knowledge of their medications and usage, etc.

<i>Biostatistics Faculty</i>	<i>PI/Department</i>	<i>Title</i>
Waller	Dara Delancy Psychiatry	A Youth Outpatient Crisis Intervention: Predicting Treatment Participation and Adherence
Waller	David Daniel Physical Therapy	Basic student assistance
Waller Lou	Sapna Chand Medicine	Demographic information regarding prevalence of TB amongst migrant farm workers in Vidalia, GA.
Waller Miller	Kelli Braun OB/GYN	The Effects of Hysterectomy on Urinary Symptoms
Waller Miller	Kathryn McLeod Pediatrics	Breastfeeding rates with OB resident education and postpartum telephone follow up intervention
Waller Miller	Yeritxa Viera / James Borke Oral Biology	The effect of OVX and alendronate on implant osseointegration in rat maxillary bone
Waller Miller	Gerald Bennett Health and Environment Systems	Managing Prostate Cancer Burden in African Americans
Waller	Jerry Buccafusco Alzheimer's Research Center	Study to relate some primate behavioral/cognitive testing paradigm in monkeys.
Waller	Andrea Thomas Medicine	Create a baseline, relational database of the state's primary care physician workforce, population profiles (especially economic), and disease rates for study of the potential impact of increased physician workforce on healthcare outcomes. The 2nd goal was to determine which, if any, factors predict disease incidence and mortality.
Waller	William Hill	SDF-1 in stroke injury. Looking at bone marrow cell mobilization following SDF-1 treatment and role in injury repair
Waller	Lacy McCurdy / Michelle Brenner	Breastfeeding Survey
Waller	Steven Adair Pediatric Dentistry	Age and Gender Differences in the Use of Behavior Management Techniques by Pediatric Dentists
Waller	John Vender Neurology	Intracranial Pressure and Baclofen Projects
Waller	Adam White Orthodontics	The Effects of Risedronate During Tooth Movement in Ovariectomized Rats
Waller	A. Awonga Obstetrics and Gynecology	Evaluation of maternal height and shoe size in the pelvic size diagnosis: Analysis of Pelvimetric Data
Waller Lou	Bergeron/Laird/Hunter/Cannon Physical Therapy	Physiological strain and perceptual differences during repeated-bout exercise in young athletes
Waller	James Borke and J. Ruan Oral Biology	Cephalometric Changes in Rat Following Facial Suture Fusion
Waller Miller	Cristin Wise Pediatrics	Assessment of how much children (6th - 12th grade) know about healthy and unhealthy beverages. The results will be compared to their BMI and the amount of health education the children have had in school.
Waller Lou	Marlene Rosenkoetter Health and Environment Systems	Disaster Evacuation
Waller	James Borke Oral Biology	Suture fusion and Cranial Morphogenesis – This project will investigate the effects of a single suture fusion on the development of the bones of the skull.

<i>Biostatistics Faculty</i>	<i>PI/Department</i>	<i>Title</i>
Waller	Andria Thomas Internal Medicine	Attitudes toward performance of endoscopic colon cancer screening by family physicians.
Waller	Lori Burkhead Otolaryngology	Consultation on two projects (head and neck cancer project and respiratory pattern in trach patients).
Waller Miller	Michael Prisant Internal Medicine	The Relationship Between Parathyroid Hormone and Small and Large Arterial Compliance
Waller Miller	Thad Wilkins / Denise Hodo Family Medicine	Impact of physician workforce on screening for colorectal cancer and the incidence and mortality of colorectal cancer.
Waller Lou	James Bittner / James Brown Urology	Comparison of three training levels of surgeons during a simulated task
Waller Miller	Anne Dorrance Physiology	Post hoc power analysis needed for a publication
Waller	Martha Tingen Pediatrics	A pre-post design that has examined student and parents life skill through survey measures
Waller Miller	Kathryn McCusker / James Becton Pediatrics	At what point does screen time become a large factor in obesity?
Weinrich Miller	Gerald Bennett Health and Environment Systems	Managing Prostate Cancer Burden in African Americans
Xu Lou	James St. Louis Cardiothoracic Surgery	Study to characterize the monocyte surface receptor, CD 163, in a population of young patients undergoing cardiopulmonary bypass.
Xu Lou	G Brockway / J Carroll Neurology	Stem cell trans Survey
Xu Lou	S Subbanna Anesthesia	Efficacy and consistency in success and the current strength needed to improve success of peripheral nerve blocks
Xu Lou	W Dynan / S Li Institute of Molecular Medicine and Genetics	Influences of gene p54(nrb) and PSF on the cellular response to DNA double strand breaks.
Xu Lou	J St. Louis Cardiothoracic Surgery	Operative results and outcomes in children with Shone's anomaly
Xu Lou	S Usuki IMMAG	Effect of Pre-germinated Brown Rice Intake on Diabetic Neuropathy and Homocysteine-Thiolactonase Activity in Streptozotocin-Induced Diabetic Rats
Xu Miller	Kent Plowman Physiology	The use of Bioelectrical Therapies in Treating Fibromyalgia - A Randomized Prospective Study

Educational Activities

Graduate Programs in Biostatistics

The field of biostatistics is in an exciting phase. The demand for biostatisticians in biomedical research far outstrips the supply. Fewer training programs and fewer qualified applicants are available for statistics and biostatistics programs than 10 years ago. In order to meet the growing demand for professional biostatisticians, a Masters program in Biostatistics was started at MCG in the Fall of 2006. The initial recruitment of students into the program was highly successful, with 7 full-time and 1 part-time students. All full-time students are currently supported by graduate assistantships. This cohort includes 6 Georgia residents, one African American and four Asians, and two females. The 4 new students who have been recruited for the Fall of 2007 include two Georgia residents, one Asian and two females.

A new Masters and a Certificate Program in Clinical and Translational Science were approved by the University System of Georgia Board of Regents in April 2007 and will be offered by the Department beginning in Summer 2008. A PhD program in Biostatistics is slated to start in the Fall of 2008, pending on approval by the Board of Regents.

Other Graduate and Undergraduate Teaching

The Department is actively involved in campus-wide graduate and undergraduate education at MCG. We offer a two-semester sequence in Biostatistics (Biostatistics I & II, 3 credits each) for students in various MS and PhD programs in Schools of Allied Health, Nursing and other disciplines. Every summer semester, we offer a 3 credit hour course, Biomedical Statistics, primarily directed to the Biomedical Science doctoral students. Biostatistics I is also offered in the summer semester for the doctoral students in Nursing Practice. We offer an introductory epidemiology course during every fall and spring, primarily for the MPH and Nursing students. Each fall, we also offer an undergraduate course, Statistics and Research Methodology (3 credit hours), for students in Health Informatics. In addition, we also offer an introductory course titled, "Introduction to Epidemiology and Biostatistics" for the Clinical Nurse Leader (CNL) and the Physician's Assistant Masters Programs. All of our Service courses are WebCT-based. We also run an on-line WebCT course, Research Design & Statistics (1 credit hour, 8 modules), primarily for the dental residents.

Campus-wide Courses taught by Biostatistics Primary Faculty in 2006-07

<i>Course #</i>	<i>Course Title</i>	<i>Instructor</i>	<i>Term</i>	<i>Students</i>
STAT 7010	Biostatistics I	Dias	Summer 06	26 DNP
STAT7040	Biomedical Statistics	Dias	Summer 06	25 PhD
STAT 4010	Stat & Research Methodology	Miller	Fall 06	12 Seniors
STAT7010	Biostatistics I	Dias	Fall 06	12 PhD, DNP & MPH
STAT7050	Research Design and Statistics	Dias	Fall 06	25 Dental Residents
STAT8110	Introduction to Biostatistics	Dias	Fall 06	8 MS Biostatistics
STAT8120	Statistical Inference I	George	Fall 06	8 MS Biostatistics
STAT8130	Introduction to Epidemiology	Weinrich	Fall 06	33 Students
STAT8140	Programming for Data Analysis	Waller/Lou	Fall 06	8 MS Biostatistics
STAT6300	Intro to Epi and Biostatistics	Dias/Weinrich	Fall 06	14 CNL MS Nursing
STAT7020	Biostatistics II	Dias	Spring 07	3 PhD & MPH
STAT8130	Introduction to Epidemiology	Weinrich	Spring 07	37 Students
STAT8210	Linear Models I	Johnson	Spring 07	7 MS Biostatistics
STAT8220	Estimation & Hypothesis Testing	Mukhopadhyay	Spring 07	6 MS Biostatistics
STAT 7010	Biostatistics I	Dias	Summer 07	48 DNP
STAT 7040	Biomedical Statistics	Dias	Summer 07	32 PhD
STAT 8311	Categorical Data Analysis	Looney	Summer 07	8 MS Biostatistics
STAT 8340	Readings & Research	Looney/Johnson	Summer 07	8 MS Biostatistics
STAT 8600	Statistical Consulting	Looney/Waller	Summer 07	7 MS Biostatistics

College-wide Student Mentoring

Our faculty members are actively involved in the College-wide training programs for fellows, residents, graduate students and professional students. We serve in the Masters and Doctoral committees upon request by the students and we help mentor fellows, residents, graduate students and professional students by providing biostatistical and computing support on their research projects. We also participate in the journal clubs of various departments on campus, as circumstances necessitate. Though these activities typically do not result in publications or other rewards, we strongly believe that it is our responsibility to facilitate the advanced medical, nursing, allied health and basic science training programs offered by the Medical College.

<i>Thesis and Dissertation Committees Served</i>				
<i>Level</i>	<i>Biostatistics Faculty</i>	<i>Candidate</i>	<i>Department/School</i>	<i>Date</i>
Masters	Dias	Josean Martinez, DMD	School of Dentistry	Ongoing
	Looney	Amos Chi, DMD	School of Dentistry	Ongoing
	Looney	Modupe Awonuga, MD	School of Allied Health	5/2007
	Looney	Colin Van Hook	LSU School of Public Health	12/2006
	Looney	Hongwei Wang	LSU School of Public Health	8/2006
Ph.D.	Johnson	Vanessa Bundy	Biomed. Research Program	Ongoing
	Looney	Paula Radmacher	Univ. of Louisville, SOPH	5/2007
	Looney	Catherine Binkley	Univ. of Louisville, SOPH	Ongoing

Special Lectures

Dias Evidence-Based Medicine I for Masters of Physician's Assistant (MPA): 8 hours of Biostatistics Lectures to 40 MPA students. July 2006.

Biostatistical Methods for Office of Graduate Medical Education: one hour lecture to 60 medical Residents and Fellows. February 2007.

Biostatistics for Researchers, Office of Human Research: two 90 minute lectures to an estimated 65 MCG researchers. April-May, 2007.

Waller Lecture to MCG surgery residents on statistical analyses and evaluation of research articles. July 2006.

Lecture to Penn State graduate students on statistical analyses and evaluation of research articles. March 2007

MCG Biostatistics Journal Club. February 2007.

Looney MCG Biostatistics Journal Club. April 2007.

Fostering and Enabling New Dental Research (FENDER): Part I: Effective Use of Surveys and Questionnaires in Dental Research: 2 hours of lectures to MCG School of Dentistry Faculty. June 2007.

Service Activities

Service at the National/International Level

George

- Permanent member of the “Kidney, Nutrition, Obesity and Diabetes Epidemiology” (KNOD) Study Section of NIH, which meets in Washington, DC three times a year to review grant applications
- Ad hoc member of the Epidemiology of Cancer Study Section of NIH
- Chair of the Special Contributed Session, “Coalescent/Evolution Theory”, at the Joint Statistical Meetings in Seattle, WA. August 2006.
- Organizer and Chair of the Special Invited Session, “Recent Advances in Gene Mapping”, at the IISA Joint Statistical Meetings and International Conference, Kochi, India. January 2007.

Johnson

- President and Executive Council member of the SouthEast SAS Users Group (SESUG)
- Assistant Registrar for the fourteenth annual SESUG conference – SESUG '06 in Atlanta, GA
- Co-chair for the Statistics and Data Analysis section at SAS Global Forum 2007 in Orlando, FL

Looney

- Associate Editor for the *Journal of Statistical Computation and Simulation*

Lou

- Session Coordinator for the Statistics and Data Analysis Section for the SAS Global Forum 2007 Conference, Orlando, FL, April 2007
- The Workshop Section and Registrar for the 14th Annual SouthEast SAS Users Group Conference, Atlanta, GA, October 2006
- Web Master for the SouthEast SAS Users Group

Waller

- Registrar and Volunteer Coordinator for the SouthEast SAS Users Group meeting in Atlanta, GA October 2006.
- Statistics and Data Analysis Section Co-Chair for the SAS Global Forum Meeting, Orlando, FL, April 2007.
- Executive Council Member and Secretary of the SouthEast SAS Users Group

College-wide Service

Dias

- Member of the Curriculum Advisory Committee, SGS, MCG, August 2004 to present.
- Member of Faculty Search Committee in the SAHS, Department of Respiratory Therapy.
- SGS representative to the MCG Faculty Grievance Subcommittee
- Member of the Biostatistics Graduate Program Committee.

- Member of the Planning Committee for the Masters and Certificate Programs in Clinical and Translational Science
- Cardiology Journal Club
- University System of Georgia Academic Advisory Committee, Mathematical Subjects Representative
- Biostatistics Instructor of “Essentials of Clinical Medicine” for first year medical students
- Chair, Department of Biostatistics Campus-wide Teaching Committee

George

- Member of MCG Integrated Clinical Translation Curriculum (ICTC) Taskforce
- Research Training, Education and Career Development Working Group MCG Leader of the SECTR Consortium (CTSA)
- Design, Biostatistics & Clinical Research Ethics Working Group member of the SECTR Consortium (CTSA)
- Collaborative Statistician for the Department of Neurology
- MCG Cancer Center Biostatistics Support Team
- Planning Committee for the Masters and Certification Programs in Clinical & Translational Science
- Member of the MCG Social & Behavioral Research Task Force
- MCG Sickle Cell Center faculty
- Chair, Department of Biostatistics Faculty Search Committee

Johnson

- Poster judge for MCG Graduate Research Day
- Medical student rotation randomization lottery
- Monthly Pulmonary Fellows Research Methods Journal Club – provide assistance interpreting statistical concerns of medical literature
- Statutes Review Committee of MCG Academic Council
- Chair, Department of Biostatistics Social Committee

Looney

- Director of Graduate Programs and Chair of Graduate Program Committee, Department of Biostatistics
- Chair, Planning Committee for the Masters and Certification Programs in Clinical & Translational Science
- Member of MCG Integrated Clinical Translation Curriculum (ICTC) Taskforce
- Research Training, Education and Career Development Working Group member of the SECTR Consortium (CTSA)
- Design, Biostatistics & Clinical Research Ethics Working Group MCG Leader of the SECTR Consortium (CTSA)
- Member, Data and Safety Monitoring Board, “Diabetes in Neuropsychiatric Disorders,” Brian Kirkpatrick, P.I.
- Member, Department of Biostatistics Faculty Search Committee
- Member, Search Committees for Office Assistant and Office Manager, Department of Biostatistics
- Judge, 2007 MCG Graduate Research Day
- Collaborative statistician and research mentor for the School of Dentistry
- MCG Cancer Center Biostatistics Support Team

Lou

- Statistical consulting support for the Department of Neurology
- Statistical and Database support for the School of Nursing

Miller

- Ongoing statistical education support for the School of Nursing

Mukhopadhyay

- Collaborative statistician for the School of Dentistry
- MCG Cancer Center Biostatistics Support Team
- Chair, Department of Biostatistics Seminar Series

Waller

- Member of the Planning Committee for the Masters and Certificate Programs in Clinical and Translational Science
- Department of Biostatistics representative to the Graduate Council, voting member
- Member of the Biostatistics Graduate Program Committee.
- Chair, Department of Biostatistics Library Committee
- Participation in faculty recruitment efforts

Xu

- Chair, Department of Biostatistics Journal Club
- MCG Sickle Cell Center faculty

Manuscript Reviews

Dias: Psychiatric Services

George: BMC Bioinformatics
BMC Dermatology
BMC Genetics
BMC Medical Genetics
BMC Medical Research Methodology
BMC Microbiology
BMC Psychiatry
Obesity

Johnson: Journal of Prosthetic Dentistry

Looney: Communications in Statistics – Theory and Methods
Journal of Prosthetic Dentistry

Waller: Journal of Prosthetic Dentistry

Xu: Annals of Human Genetics
BMC Genetics
Genomics
Human Genetics

Strategic Planning and Major Goals

Educational Environment

The long-term educational goal of the department is to build a strong MS/PhD program that will be highly competitive, methodologically sound, and which will meet the modern skills and demands of a practicing biostatistician. Dr. Stephen Looney, who assumed the role as the Director of Graduate Programs in June 2006, spearheaded our efforts to submit a formal proposal for a doctoral program to the Board of Regents. The proposal was reviewed by an external review committee consisting of Drs. Melissa Begg of Columbia University, Robert Elston (Chair) of Case Western Reserve University and Lemuel Moyé of the University of Texas School of Public Health, and was revised based on their recommendations, before submitting to the Board of Regents. We anticipate starting the program in the fall of 2008.

As part of the five-year strategic research mission, MCG is taking a major initiative for the expansion and transformation of its Clinical and Translational Research (CTR) under the leadership of Dr. Frank Treiber (Vice President for Research). MCG has joined forces with the Medical University of South Carolina and the University of South Carolina to form a research alliance called Southeastern Clinical and Translational Research Institute (SECTR), with the goal of improving health outcomes of the population through discovery and implementation of evidence-based practice. Drs. Varghese George and Stephen Looney play major roles in this endeavor as the MCG Leaders of the Research Education, Training and Career Development Working Group and the Design, Biostatistics and Clinical Research Ethics Working Group. A major component of this initiative is to establish formal mechanisms for training young investigators for cutting edge CTR. A proposal for a certificate program and a Masters program in Clinical and Translational Science was approved by the Board of Regents, and the plans are underway for starting them in May 2008.

During the fall semester of every year, our faculty members visit relevant undergraduate departments at colleges and universities in Georgia and South Carolina, as part of our recruitment efforts.

The Department is in the process of establishing a 3/2 program with the Mathematics Department at Augusta State University, in which students majoring in Mathematics or closely related fields at the Augusta State University will complete the undergraduate course requirements in three years and will continue at MCG for an additional two years to complete a Masters in Biostatistics. This program is approved in principle by the administrations of both institutions. We expect to complete all the necessary requirements and obtain official approvals from both institutions within the next few months. We have received serious inquiries from the Mathematics Departments at Armstrong State University in Savannah and at the Georgia Southern University in Statesboro for establishing similar programs, which we fully intend to explore further.

Research Enterprise

The long-term goal of the Department is to build a critical mass of faculty members with strong commitment in methodological and collaborative research. Active methodological research by faculty is not only important for the continued professional growth of the faculty, but is also an integral part of a good doctoral program.

The most important role of a biostatistician within a biomedical research institution is to be a successful collaborative researcher. The Biostatistics department should serve as the backbone of scientific research on campus, providing the leadership and support for all statistical needs. Biostatistics faculty should play a key role and serve as co-investigator in every grant application, submitted from MCG to NIH, NSF and other national funding agencies. The Biostatistics faculty members continue to work hard in developing strong partnerships with other departments and individual researchers on campus by meeting with them individually and in groups, attending and giving talks to journal clubs of various research groups, and helping them in their grant proposals. We want to maintain the extramural support within the Department to the level of a minimum of 50% funding for each faculty, and use those funds to further expand the department.

The new MCG Cancer Center opens up excellent opportunities for the Biostatistics Department to expand and grow rapidly. We have a firm commitment from the MCG administration that Biostatistics will be a strong partner in the Cancer Center research, providing all the statistical and data management support for the Cancer Center. As a start, Dr. Kapil Bhalla, the new Director of the Cancer Center, has already started supporting Biostatistics faculty for collaborative research with the Cancer Center scientists. As the Cancer Center grows, we expect to be an integral part of it, serving as its Biostatistics Core.

One of the areas where MCG lacks expertise at present is Epidemiology. All of the Deans, the Cancer Center Director, the Vice President for Research, the Provost, and the President clearly recognize this deficiency and have made a firm commitment to provide funding for establishing an Epidemiology Division within the Biostatistics Department. We hope that it will become a reality in the near future.

Faculty Recruitment

With our educational and research goals in mind, the Department will continue its efforts to recruit at least 3 more faculty members in biostatistics and epidemiology to complement the existing strengths of the department. The newly recruited faculty members will have a strong commitment for methodological and collaborative research.

Diversity

The Department is committed to promote diversity of ethnic background, gender and other characteristics. Of the eleven full-time personnel in the Department at present, we have 7 women, one African-American, four Asians and one of Hispanic origin. We will make every effort to continue fair representation from all groups, including under-represented minorities, in our recruitment efforts for faculty, staff and students.

Institutional Communications

The Department will continue to support all existing and new academic programs across MCG, and will continue to mentor students, residents, fellows and junior faculty by assisting them in their projects for statistical and computational needs, serving in their thesis/dissertation committees, and offering short courses and seminars to meet their needs. We will make every effort to build research partnerships and promote strong interdisciplinary research programs by providing collaborative support to investigators across campus. We will continue to work closely with the IT Department of MCG to optimize our computing and IT needs.

Office Space

As the department has grown substantially over the last year, we are faced with the major problem of lack of office space for our personnel. At present we have exhausted all available space allocated to the Department. We are still going through major expansion in terms of faculty, staff and graduate assistants. Any further growth must come with additional adequate office space. We sincerely hope that space limitations will not stand in the way of growth of the department which is critical for building a nationally competitive research community at MCG.

Major Goals of FY08

Our long term goal is to build a full-fledged department of national reputation, with strengths and competency in graduate teaching, collaborative research and methodological research. Working towards this goal, we plan to accomplish the following during the next year:

- Recruit at least three highly qualified Biostatistics faculty members who are committed to strong methodological and collaborative research, and graduate teaching and mentoring.
- Contingent on funding approval, recruit a leader, at least one other faculty and a staff person for the Epidemiology Division.
- Recruit 5-8 graduate students with strong quantitative backgrounds and exposure to biomedical science for the MS program and the first cohort of our doctoral program in Biostatistics.
- Recruit 3-5 junior faculty and/or fellows from MCG for our new Masters and Certificate programs in Clinical and Translational Science.
- Continue working with the MCG and SECTR regional team in our collective efforts for submitting a competitive CTSA application to NIH.
- Continue our regular seminar and journal club series. Each faculty will be required to present at least one seminar on his/her research and at least one journal club presentation of a relevant and timely article during each year.
- Maintain the extramural funding support at a minimum of 50% support for each faculty.

- Increase the visibility of the Biostatistics Consulting Center across campus and increase the consulting activities. As before, we will distribute the consulting brochure among all departments, faculty members, residents and fellows within campus, and among industries and government agencies across the State and the Nation.
- Continue the support service for medical students, undergraduate and graduate students, residents and fellows, and other teaching programs by mentoring, presenting seminars, participating in journal clubs and offering formal courses.
- Continue the professional growth of faculty by participating in national conferences and continuing education activities, presenting the research in meetings and seminars, and publishing methodological and collaborative research results in peer reviewed journals.

Conclusion

The Department is at its infancy, and it will take considerable efforts from the administration, faculty and staff to build it into a full-fledged department with national and international stature. With the new leadership, the strong support from the administration and the firm commitments from our faculty and staff, we are very confident we can achieve our goals in the not-too-far future. The various research and educational initiatives such as the Cancer Center, Center for Biotechnology and Genomic Medicine, the Georgia Prevention Institute and the SECTR open up the door for Biostatistics to expand and grow into a strong resource for research methodology and a major component of collaborative, interdisciplinary and translational research on Campus. With the MS and proposed PhD programs in Biostatistics, and the new Masters and Certificate programs in CTS, and continued teaching and mentoring of students in other programs, Biostatistics will serve as an integral part of the graduate training programs at MCG. The state of the Department continues to be quite healthy and the future looks very bright and promising.