

GARETT GRIFFITH

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EDUCATION

Master of Public Health in Health Policy & Administration

University of Illinois at Chicago

Chicago, IL

December 2016

- Graduate Capstone: *Rationale and Structural Framework for a Preventive Exercise Physiology Graduate Program*
Advisor: Richard Sewell, BS, MPH

Master of Science in Clinical Exercise Physiology

Ball State University

Muncie, IN

May 2014

- Graduate Thesis: *The Prevalence of Preclinical Atherosclerosis in a Healthy Adult Population*
Advisor: Leonard Kaminsky, Ph.D.

Bachelor of Science in Physical Education, Concentration in Exercise Science

Butler University

Indianapolis, IN

May 2012

PROFESSIONAL EXPERIENCE

Laboratory Manager

University of Illinois at Chicago Integrative Physiology Laboratory

April 2015 — Present

- Support the Integrative Physiology Laboratory mission of engaging in translational research across several disciplines
- Direct maximal cardiopulmonary exercise testing sessions in collaboration with cardiologists in populations with Parkinson's Disease, Type I Diabetes Mellitus, and pediatric Sickle Cell Anemia
- Supervise business development including involvement with Letters of Support, Memorandums of Understanding, and monthly invoices
- Coordinate data collection and personnel management for research investigations in populations with Chronic Kidney Disease and Cancer
- Train incoming Ph.D. students and undergraduate interns to serve as Research Assistants on techniques including aortic and cerebral blood pressure and blood flow
- Develop and implement laboratory-wide standardization procedures for equipment usage and maintenance
- Create mutually beneficial relationships with Principal Investigators and conduct training sessions on usage of laboratory equipment
- Seek out new business and advertise the services of the Integrative Physiology Laboratory
- Oversee laboratory space management in order to maximize research productivity and diversification
- Perform routine equipment inventory and serve as primary point of contact for day-to-day operating logistics
- Develop and oversee new research projects to advance the research agenda of Integrative Physiology Laboratory Principal Investigators

Research Coordinator

University of Illinois at Chicago Integrative Physiology Laboratory

May 2014 — Present

- Support the ongoing research of the Integrative Physiology Laboratory in collaboration with the Exercise Neuroscience Laboratory at the University of Illinois Champaign-Urbana investigating exercise, subclinical atherosclerosis, and walking mobility in multiple sclerosis
- Coordinate all aspects of the research process including IRB documentation, subject recruitment, human research testing, and data management
- Communicate with local primary care physicians and neurologists in order to ensure safe participation of subjects
- Administer the Expanded Disability Status Scale, a basic neurological assessment to determine the extent of disability, to study subjects
- Make visits to subjects' houses to trouble shoot exercise intervention questions on an on-call basis
- Provide educational opportunities for local support groups on the benefits of physical activity and exercise in persons with multiple sclerosis and other chronic diseases
- Supervise maximal cardiopulmonary exercise tests and train assistants to assist as blood pressure and metabolic cart technicians
- Collect, process, and organize data for interpretation to ensure reliable and reproducible results

Testing Program and Fitness Center Supervisor

Adult Physical Fitness Program

Fall 2013

- Developed and implemented laboratory-wide standardized procedures for SphygmoCor Pulse Wave Velocity assessment, GE ultrasound measurement of Carotid Intima Media Thickness, and JAMAR hydraulic hand dynamometer strength assessment
- Trained Graduate Assistants in clinical exercise physiology assessment protocols
- Supervised all laboratory testing and day-to-day activities in the fitness center
- Calibrated and prepared all testing laboratory equipment for daily procedures
- Directed collection and interpretation of all cardiovascular, respiratory, and metabolic data
- Educated the Ball State University community on the importance of regular physical activity and cardiovascular disease risk factor modification during student health fairs

Corporate Fitness Management Intern

Dow AgroSciences

January 2012 — May 2013

- Assisted full-time fitness center manager with day-to-day operations and logistics decisions
- Implemented fitness center inventory and cleaning program to more efficiently utilize equipment and maintain full functionality of the space
- Participated in monthly planning meetings to help guide the strategic direction of the fitness center and subsequently developed programs to work towards those goals

Cardiac Screening Center Operator

Franciscan St. Francis Health

August 2011 — December 2011

- Performed personal blood lipid profile, peripheral artery disease, and body composition screenings for community members
- Conducted individual consultations after screens were completed and provided education on risk factor modification
- Interpreted and educated patients about the results of outpatient coronary artery calcium scans
- Founded and created informational content for the St. Francis Pulse, a monthly newsletter for patients of the Heart Center

Assistant Fitness and Wellness Director

Jewish Community Center of Indianapolis

May 2011 — August 2011

- Founded and coordinated the first annual “Discover & Dine” community health and fitness fair, and event designed to educate the community about healthy diet and physical activity choices, by incorporating local and national health agencies to serve as vendors
- Developed educational content for a monthly “Wellness Wall” to coincide with national health observances as stated by the U.S. Department of Health and Human Services
- Coordinated volunteers and participants for the 4th annual Children’s Triathlon
- Created content for a weekly balance-based fitness class targeting the geriatric population
- Assisted with the planning and scheduling of youth athletic leagues, including basketball, soccer, and gymnastics

Personal Trainer

Health and Recreation Complex, Butler University

August 2010 — May 2011

- Assessed aerobic capacity, body composition, muscular strength and endurance, and flexibility of 6 clients per week
- Created individualized workouts and adjusted as clients progressed
- Demonstrated safe exercise form and coached clients during hour long exercise sessions
- Implemented specialized weekly conditioning sessions for Butler University’s Club Swim Team

Medically Referred Exercise (MRE) Program Assistant

Westview Community Healthplex

October 2010 — March 2011

- Designed and implemented custom exercise prescriptions for high risk populations referred for exercise by primary care physicians
- Monitored heart rate, blood pressure, and glucose throughout each exercise session
- Counseled MRE members on risk factor modification and cardiovascular disease risk reduction

GRADUATE & PROFESSIONAL RESEARCH EXPERIENCE

Co-Principal Investigator

Comparing Maximal Exercise Test Responses Using Different Testing Modalities in Multiple Sclerosis

- Developed testing protocol for multiple sclerosis patients to complete graded exercise tests on both a treadmill and cycle ergometer

- Complete all IRB procedures including submission, revisions, and annual renewals
- Recruit eligible subjects from the surrounding community and screen interested individuals for eligibility criteria
- Perform all data reduction, entry, backup, and statistical analysis

Research Coordinator

Fault-Tolerant Control Systems for Artificial Pancreas

- Schedule all subject testing for Cardiopulmonary Exercise and 1 Repetition Maximum Strength Testing for patients with Type I Diabetes
- Supervise all exercise tests in cooperation with local Cardiologists
- Develop 1 Repetition Maximum and sub-maximal resistance training protocols

Research Assistant

Mediterranean Diet, Weight Loss, and Cognition in Obese Older Adults

- Train professional study personnel on use of DEXA scan, phlebotomy suite, and cognitive testing and interview rooms
- Work with study team to streamline scheduling process and increase subject enrollment rate

Research Coordinator

Control Systems for Artificial Pancreas Use During and After Exercise

- Schedule all subject testing for Cardiopulmonary Exercise and 1 Repetition Maximum Strength Testing for patients with Type I Diabetes
- Supervise all exercise tests in cooperation with local Cardiologists
- Develop 1 Repetition Maximum and sub-maximal resistance training protocols

Research Specialist

Exploratory Study of Different Doses of Endurance Exercise in People with Parkinson's Disease

- Schedule all subject testing and research assistants for Cardiopulmonary Exercise Testing with 12-lead ECG monitoring for Parkinson's Disease patients
- Supervise all exercise tests in cooperation with local cardiologists

Research Specialist

Fault Detection, Diagnosis and Recovery, for Risk Mitigation in Artificial Pancreas Systems

- Schedule all Cardiopulmonary Exercise Testing for patients with Type I Diabetes
- Supervise all exercise tests in cooperation with local Cardiologists
- Train Ph.D. students as research assistants in electrocardiography preparation, exercising blood pressure assessment, and metabolic cart assessment and interpretation

Research Specialist

Flow-Mediated Dilation and Arterial Health in Children and Young Adults with Sickle Cell Anemia: A Feasibility Study

- Coordinate collaboration with investigators from the Beckman Laser Institute at UC Irvine
- Schedule all arterial health and Cardiopulmonary Exercise Testing and research assistants for patients with Sickle Cell Anemia
- Perform Carotid Intima Media Thickness, Beta Stiffness, and Flow-Mediated Dilation assessments
- Supervise all exercise testing in cooperation with a Pediatrician from Lurie Children's Hospital

Research Specialist

Gender Disparities and Vascular Function in Chronic Kidney Disease Outcomes: Gender Differences in Endothelial Function and the Role of Endothelial Function as a Predictor of CKD Progression

- Coordinated research assistants and weekly study schedule with study personnel
- Performed Flow-Mediated Dilation and endothelial-independent assessment of brachial artery function using sub-lingual nitroglycerin tablets

Principal Investigator: Graduate Level Thesis Study

The Prevalence of Preclinical Atherosclerosis in a Healthy Adult Population

- Recruited over 60 subjects from the community
- Developed a research protocol and laboratory-wide standardized operating procedures for Carotid Intima Media Thickness and Pulse Wave Velocity measurements
- Performed Carotid Intima Media Thickness and Pulse Wave Velocity assessments as primary indicators of arterial health and function

- Trained research assistants in the study protocol and interpretation of arterial health assessment results
- Objectively evaluated cardiovascular disease risk factors including body composition, blood lipid profile, and physical activity characteristics

Research Assistant

Life-Long Exercise

- Operated graded cardiopulmonary exercise testing by conducting ECG, metabolic, or hemodynamic assessments of octogenarian athletes

Research Assistant

Physical Activity Characteristics of Peripheral Artery Disease Patients

- Assessed patients' functional capacities with the 6 Minute Walk Test
- Evaluated patients' mobility and balance with the Short Physical Performance Battery

Research Assistant

National Cardiorespiratory Fitness Registry

- Analyzed cardiopulmonary and metabolic testing variables from maximal exercise tests from 1971-present
- Interpreted ECG rhythm strips as well as hemodynamic responses to exercise

Research Assistant

United States and United Kingdom Physical Activity

- Recruited subjects and processed ActiGraph accelerometer data
- Issued and interpreted subjective physical activity questionnaires

Research Assistant

Heart Failure: Novel Exercise Training

- Calibrated single-legged kicking exercise training device to ensure quality data collection

REFEREED MANUSCRIPTS

1. **Griffith, G.**, Klaren, R.E., Motl, R.W., Baynard, T., Fernhall, B. Experimental protocol of a randomized controlled clinical trial investigating exercise, subclinical atherosclerosis, and walking mobility in persons with multiple sclerosis. *Contemporary Clinical Trials*. 41: 280-6, 2015.

MANUSCRIPTS UNDER REVIEW

1. Turksoy, K., Monforti, C., Park, M., **Griffith, G.**, Quinn, L., Cinar, A. Use of wearable sensors and biometric variables in an artificial pancreas system. *Sensors*.

PUBLISHED SCIENTIFIC ABSTRACTS

1. **Griffith, G.**, Ozemek, C., Campbell, K., Johnson, M., Byun, W., Kaminsky, L.A.. Physical activity characteristics of pre-bariatric surgery patients assessed by two different sets of accelerometer cutpoints. *Midwest Chapter of the American College of Sports Medicine*. P3-4: 53, 2012.
2. **Griffith, G.**, Ozemek, C., Campbell, K., Johnson, M., Byun, W., Kaminsky, L.A. Physical activity levels of pre-bariatric surgery patients: differences with accelerometer activity count thresholds. *Medicine and Science in Sports and Exercise*. 45(S5): 2013.
3. Tecca, K.M., **Griffith, G.**, Tuttle, M.S., Whaley, M.H., Kaminsky, L.A. The prevalence of preclinical atherosclerosis in a healthy adult population using pulse wave velocity measures. *Midwest Chapter of the American College of Sports Medicine*. 2014.
4. **Griffith, G.**, Wee, S.O., Klaren, R.E., Thur, L., Kappus, R.M., Shafer, B., Bunsawat, K., Motl, R.W., Baynard, T., Fernhall, B. Home-based exercise in persons with multiple sclerosis: fitness and walking mobility preliminary results. *Medicine and Science in Sports and Exercise*. 47(5S): 361-2, 2015.
5. Klaren, R.E., **Griffith, G.**, Fernhall, B., Motl, R.W. Impact of a home-based exercise intervention on fitness and walking outcomes in persons with MS: preliminary results. *International Journal of MS Care*. 17(S8). 2015.
6. **Griffith, G.**, Klaren, R.E., Wee, S.O., Kappus, R.M., Motl, R.W., Baynard, T., Fernhall, B. Differences in carotid arterial characteristics based on years since diagnosis in relapsing remitting multiple sclerosis patients. *Artery Research*. 2015.
7. Wee, S.O., **Griffith, G.**, Klaren, R.E., Motl, R.W., Baynard, T., Fernhall, B. Hemodynamic responses following 12 weeks of home-based exercise in individuals with multiple sclerosis: wave separation analysis. *Artery Research*. 2015.

8. Kastelz, A., Tzvetanov, I.G., Kappus, R.M., **Griffith, G.**, Rosenberg, A.J., Fernhall, B., Gallon, L., Shetty, A., Benedetti, E. Relationship between arterial stiffness and functional capacity in kidney transplant patients. *Artery Research*. 2015.
9. Wee, S.O., Rosenberg, A.J., Bunsawat, K., **Griffith, G.**, Fernhall, B. Hemodynamic and peripheral vascular conductance in individuals with down syndrome following hypovolemic pressure challenge. *Midwest Chapter of the American College of Sports Medicine*. 2015.
10. **Griffith, G.**, Klaren, R.E., Wee, S.O., Motl, R.W., Baynard, T., Fernhall, B. Clinical and hemodynamic characteristics of an aerobic exercise randomized controlled trial in multiple sclerosis. *12th Global Cardio Vascular Clinical Trialists Forum*. 2015.
11. Wee, S.O., Rosenberg, A.J., Bunsawat, K., **Griffith, G.**, Baynard, T., Fernhall, B. Autonomic regulation in individuals with Down Syndrome following hypovolemic pressure challenge: heart rate variability. *Experimental Biology*. 2016.
12. **Griffith, G.**, Klaren, R.E., Wee, S.O., Motl, R.W., Baynard, T., Fernhall, B. Fatigue level is associated with sleep quality but not vector magnitude in multiple sclerosis. *Medicine and Science in Sports and Exercise*. 48(S5): 2016.
13. Grigoriadis, G., Wee, S.O., **Griffith, G.**, Rosenberg, A.J., Bunsawat, K., Fernhall, B., Baynard, T. Blood pressure and wave separation analysis: lower body negative pressure in individuals with Down Syndrome. *Medicine and Science in Sports and Exercise*. 48(S5): 2016.
14. Wee, S.O., Rosenberg, A.J., Bunsawat, K., **Griffith, G.**, Baynard, T., Fernhall, B. Hemodynamic and peripheral vascular conductance in individuals with Down Syndrome following hypovolemic pressure challenge. *Medicine and Science in Sports and Exercise*. 48(S5): 2016.
15. Hilgenkamp, T., **Griffith, G.**, Motl, R.W., Baynard, T., Fernhall, B. Sex differences in vascular structure and function in individuals with multiple sclerosis and healthy controls. *Artery Research*. 2016.
16. **Griffith, G.**, Hilgenkamp, T., Klaren, R.E., Wee, S.O., Motl, R.W., Baynard, T., Fernhall, B. Multiple sclerosis patients experience more decrements in carotid artery functional properties with aging than age-matched peers. *Artery Research*. 2016.
17. Wee, S.O., Rosenberg, A.J., Bunsawat, K., **Griffith, G.**, Baynard, T., Fernhall, B. Vascular function in individuals with down syndrome: central and systemic vascular function. *Artery Research*. 2016.
18. Hilgenkamp, T., **Griffith, G.**, Motl, R.W., Baynard, T., Fernhall, B. Poor sleep quality related to worse vascular function in individuals with multiple sclerosis. *Artery Research*. 2016.

SUBMITTED SCIENTIFIC ABSTRACTS

1. **Griffith, G.**, Wee, S.O., Klaren, R.E., Motl, R.W., Baynard, T., Fernhall, B. Multiple sclerosis patients do not show changes in wave intensity analysis following home-based exercise. *The Federation of American Societies for Experimental Biology Journal*. 2017.
2. Bunsawat, K., Grigoriadis, G., Wee, S.O., **Griffith, G.**, Brown, M.D., Phillips, S.A., Fadel, P.J., Clifford, P.S., Fernhall, B., Baynard, T. No evidence of impaired functional sympatholysis in young obese adults. *The Federation of American Societies for Experimental Biology Journal*. 2017.
3. Grigoriadis, G., Rosenberg, A.J., Wee, S.O., Schroeder, E.C., Hilgenkamp, T.I., **Griffith, G.**, Baynard, T. Effects of aerobic capacity on arterial stiffness in individuals with multiple sclerosis. *The Federation of American Societies for Experimental Biology Journal*. 2017.
4. Rosenberg, A.J., Wee, S.O., Schroeder, E.C., Grigoriadis, G., Bunsawat, K., Hilgenkamp, T.I., **Griffith, G.**, Fernhall, B., Baynard, T. The effects of acute exercise on cerebral blood flow and cognition in persons with multiple sclerosis. *The Federation of American Societies for Experimental Biology Journal*. 2017.
5. Wee, S.O., Rosenberg, A.J., Bunsawat, K., **Griffith, G.**, Baynard, T., Fernhall, B. Difference in carotid vascular conductance in individuals with Down Syndrome following lower body negative pressure challenge. *The Federation of American Societies for Experimental Biology Journal*. 2017.
6. Saed, B., **Griffith, G.**, Wee, S.O., Klaren, R.E., Motl, R.W., Baynard, T., Fernhall, B. The effect of home-based aerobic exercise on perceived quality of life in multiple sclerosis patients. *The Federation of American Societies for Experimental Biology Journal*. 2017.
7. **Griffith, G.**, Hilgenkamp, T., Rosenberg, A.J., Grigoriadis, G., Bunsawat, K., Wee, S.O., Schroeder, E., Saed, B., Baynard, T. Treadmill vs. cycle ergometry graded exercise test responses in multiple sclerosis patients. *Medicine and Science in Sports and Exercise*. 2017.
8. Bunsawat, K., Grigoriadis, G., **Griffith, G.**, Wee, S.O., Schroeder, E., Fernhall, B., Baynard, T. Muscle blood flow responses to dynamic handgrip exercise in young obese adults. *Medicine and Science in Sports and Exercise*. 2017.
9. Wee, S.O., Rosenberg, A.J., Bunsawat, K., **Griffith, G.**, Baynard, T., Fernhall, B. Responses in arterial distensibility and compliance following lower body negative pressure challenge in individuals with Down Syndrome. *Medicine and Science in Sports and Exercise*. 2017.

10. Fuller, K.N.Z., **Griffith, G.**, Klaren, R.E., Haus, J.M., Baynard, T., Motl, R.W., Fernhall, B. Effect of exercise training on cellular inflammation and fitness in individuals with multiple sclerosis. *Medicine and Science in Sports and Exercise*. 2017.
11. **Griffith, G.**, Chin, E., Stanley, P., Mitchem, D., Mansker, A., Pratts, R. The health legacy program for women: Analysis of diabetes history and habits. *Generations*. 2017.

SUPERVISED STUDENT PRESENTATIONS & PROJECTS

1. Wang, Y., **Griffith, G.**, Baynard, T. Characteristics of heart rate recovery after maximal cycling exercise in individuals with multiple sclerosis. *Recognition of Achievement, Research, and Excellence*. University of Illinois at Chicago, 2016.
2. Weiss, E., **Griffith, G.**, Baynard, T. Body habitus, arterial stiffness, and fitness in multiple sclerosis. *Recognition of Achievement, Research, and Excellence*. University of Illinois at Chicago, 2016.
3. Diab, N., **Griffith, G.**, Baynard, T. Multiple sclerosis and sodium. *Recognition of Achievement, Research, and Excellence*. University of Illinois at Chicago, 2016.

INVITED LECTURES & PROFESSIONAL SYMPOSIA

1. **Griffith, G.** The prevalence of preclinical atherosclerosis in a healthy adult population. Ball State University. *Adult Physical Fitness Program*. May 2014.
2. Pratts, R., Mitchem, D., Mansker, A., Stanley, P., Chin, E., **Griffith, G.** The health legacy program for women: Addressing disparities in the African-American community. *Health Disparities & Social Justice Conference*. August 2016.
3. **Griffith, G.** Heart health: First stop on your passport to health. Rush University Medical Center: Health & Aging Department. *Rush Generations Program*. October 2016.
4. **Griffith, G.**, Thomas, M., Near, T., Hadid, W., Fernhall, B. From university to hospital: A multi-disciplinary collaboration to implement cardiopulmonary exercise testing. *Midwest Chapter of the American College of Sports Medicine*. November 2016.
5. Pratts, R., Mitchem, D., Mansker, A., Stanley, P., Chin, E., **Griffith, G.** The health legacy program. Rush University Medical Center. *Rush Preventive Medicine Grand Rounds*. November 2016.

PEER REVIEW: MANUSCRIPTS

Contemporary Clinical Trials

TEACHING EXPERIENCE

KN396: Research Practicum - Integrative Physiology Laboratory

Co-Instructor

- Spring 2015: 2 students, 116.5 hours
- Fall 2015: 4 students, 360 hours
- Spring 2016: 4 students, 123 hours
- Summer 2016: 4 students, 385.5 hours
- Fall 2016: 6 students, 442 hours

PT635: Cardiopulmonary Dysfunction

Invited Lecturer

- Spring 2015: 60 students
- Spring 2016: 58 students
- Spring 2017: 59 students

PT694: Gait and Movement Analysis

Invited Lecturer

- Spring 2016: 8 students

KN442: Principles of ECG Interpretation

Invited Lecturer

- Fall 2016: 12 students

KN571: Normal and Abnormal Biomechanics

Invited Lecturer

- Spring 2017: 20 Students

UIC Biology Colloquium

Invited Lecturer

- Fall 2015: 7 students, 1 Teaching Assistant
- Spring 2015: 12 students, 2 Teaching Assistants
- Fall 2016: 21 students, 3 Teaching Assistants

PT Orthopedic Residency Program

Invited Lecturer

- Spring 2016: 3 residents, 4 staff
- Fall 2016: 3 residents, 4 staff

Malcolm X Community College Medical Programs

Invited Lecturer

- Fall 2016: 21 students

Ph.D. and MS Student Orientation

Supervisor

- 10 students
- Instructed students on Integrative Physiology Laboratory assessments and interpretation
- Established Reliability Testing criteria

UIC Helen Barton Scholar

Supervisor

- Summer & Fall 2015: 135 hours

UIC Student Research Opportunities Program

Supervisor

- Summer 2016: Advised student from The University of Puerto Rico at Cayey
- Project: “Sex Differences in Cardiovascular Function Following Acute Lower Body Resistance Exercise”

VOLUNTEERISM & PROFESSIONAL SERVICE ACTIVITIES

Clinical Exercise Physiology Association Legislative Council

Indianapolis, IN

Fall 2016 — Present

- Serve as a young professional representative and assist in planning future initiatives
- Coordinate advocacy efforts for the profession and aid in building a scientific foundation for the advancement of clinical exercise physiologists' role in healthcare

Staff Leadership Mentoring Program

Chicago, IL

Summer 2016 — Present

- Served as Mentor for new UIC Staff and participated in bi-weekly meetings to discuss professional development and career opportunities

American Public Health Association Reviewer

Fall 2015 — Present

- Evaluate scholarship applications for the APHA's Health Administration Section
- Serve as a physical activity specialist in reviewing abstracts submitted to the annual national meeting & exposition

PROFESSIONAL MEMBERSHIPS & CERTIFICATIONS

American Society on Aging

December 2016 — Present

American Physiological Society

November 2016 — Present

American Public Health Association

May 2015 — Present

American Heart Association

August 2014 — Present

North American Artery Society

August 2014 — Present

American College of Sports Medicine

October 2012 — Present

American Heart Association: BLS CPR/AED

Certified in 2014

Expanded Disability Status Scale Administration

Certified in 2014