ANTHONY J. BOCCHINE

Rutgers University – New Brunswick

Ph.D. Student

Department of Kinesiology & Health

Phone: (814) 720-0605

Education

Graduate:

Ph.D. Kinesiology (Exercise Psychology), Rutgers University, New Brunswick, NJ. 2016-2020 (Expected).

M.S. Kinesiology (Exercise Psychology), University of North Carolina at Greensboro, Greensboro, NC. 2014-2016.
Thesis: "Investigation into Hippocampal-Dependent Memory: Effects of Exercise and Nutrition".

Undergraduate:

B.A. Psychology & German Language (Emphasis: Neuroscience), Washington & Jefferson College, Washington, PA. 2010-2014.
Thesis: "The Effects of Exercise on Spatial Learning and Hippocampal Neurogenesis in Rats".

Professional Employment

Aug. '15 – May '16 Graduate Research Assistant, Department of Kinesiology/Department of Nutrition, University of North Carolina at Greensboro.

Aug '14 – Aug. '15 Graduate Research Assistant, Department of Kinesiology/Department of Nutrition, University of North Carolina at Greensboro.

Jan '15 – May '15 Graduate Teaching Assistant, Department of Kinesiology, University of North Carolina at Greensboro.

Grants and Awards

Kappa Omicron NU Honor Society (2015), University of North Carolina at Greensboro, Greensboro, NC.

Graduate Dean's Award (2015), University of North Carolina at Greensboro, Greensboro, NC.

Stout Graduate Research Fellowship (2015), University of North Carolina at Greensboro, Greensboro, NC.

Stout Summer Research Assistantship Award (2015), University of North Carolina at Greensboro, Greensboro, NC.

Kinesiology Teaching Assistantship (2014), University of North Carolina at Greensboro, Greensboro, NC.

PAC Honor Roll (2014), Washington & Jefferson College, Washington, PA

Washington & Jefferson Dean's List (2014), Washington & Jefferson College, Washington, PA.

Magellan Kelso Scholar Award (2013), College award for independent study in Germany. Washington & Jefferson College, Washington, PA.

Edward and Barbara Greb Travel Award (2012), Award for Intersession travel to Germany. Washington & Jefferson College, Washington, PA

Collegiate Varsity Letter Award (2010-2014), Letters earned in NCAA Division III Sports, Cross Country (4), Indoor Track and Field (4), Outdoor Track and Field (4), Washington & Jefferson College, Washington, PA.

Research Experience

Master Thesis Research (M.S): Department of Kinesiology, University of North Carolina at Greensboro (January 2015 – Current)

Advisor: Dr. Jennifer Etnier, Dr. Joseph Lee Beverly

"Investigation into exercise-induced hippocampal neuroplasticity: a role for neuropoietic cytokines".

- Methods: Chronic exercise paradigm with rats, Barnes maze for hippocampal-dependent learning, dissection and collection of brain tissue slices (hippocampus), BCA analysis for protein content. Data analysis for Barnes maze and protein concentrations through SPSS.
- Other daily duties in this laboratory include novel object recognition, protein diet composition, BCA assay, and skeletal muscle tissue collections.

Exercise Psychology Laboratory: Department of Kinesiology, University of North Carolina at Greensboro (August 2014 – May 2015)

Advisor: Dr. Jennifer Etnier

- Assisted with on-going projects in laboratory
- Contributed to development of research protocols and methods through group meetings
- Experience in laboratory included: Neurocognitive testing, exercise assessment and testing, as well as questionnaire administration to various research study participants

Undergraduate Independent Research in Neuroscience: Department of Biology, Washington & Jefferson College (August 2013 – January 2014).

Advisor: Dr. Ronald Bayline

"Examining the effects of specific neurotransmitters (Glutamate and CCAP) on oscillation behavior in the nerve cord and heart of the hawkmoth, manduca sexta."

- Methods: Raising and caretaking of moth colony, dissection and preservation of moth nerve cords under microscope, application of neurotransmitters to ventral diaphragm muscle (VDM), recording of oscillation rates of nerve cord, and data analysis through SPSS for oscillation rates.

Undergraduate Thesis Research in German: Department of Modern Languages, Washington & Jefferson College (January 2013 – January 2014).

Advisor: Dr. Michael Shaughnessy

"Independent research in Düsseldorf, Germany, studied the effects of color and shape in language differences between the German and English language."

- Methods: Took photographs of various objects in Germany to identify distinction between their color and shape with similar objects in the US. Objects needed to have an associated word in both languages (such as stop sign), where perception of object can change between cultures if color/shape is different.

Undergraduate Thesis Research in Psychology: Department of Psychology and Neuroscience, Washington & Jefferson College (January 2013 – May 2013).

Advisor: Dr. Lynn Wilson

"The effects of exercise on spatial learning and hippocampal neurogenesis in rats".

- Methods: Voluntary wheel running with rats (2 weeks), use of Morris water maze as spatial learning task, dissection and collection of rat brain tissue using microtome, immunohistochemical staining of brain tissue for analysis of nuclei, and used a laser confocal microscope to image brain tissue between exercise and sedentary groups. Data analysis using SPSS software.

Presentations and Posters

Bocchine, A.J. (2015, November). *Investigation into exercise-induced hippocampal neuroplasticity: a role for neuropoietic cytokines*. Presentation for the 3M Thesis Competition at the University of North Carolina at Greensboro.

Bocchine A.J. & Etnier J.L. (2015, November). *Investigation into exercise-induced hippocampal neuroplasticity: a role for neuropoietic cytokines*. Presentation to the University of North Carolina at Greensboro Kinesiology faculty for Master thesis research.

Tsiris, S.I., Pflumm, A.A., & **Bocchine, A.J.** (2013, May). *The effects of exercise on hippocampal neurogenesis*. Poster presented at the Washington & Jefferson College academic research symposium.

Bocchine, A. J. & Bayline, R.J. (2013, November) *Analyzing excitatory oscillation behavior utilizing Glutamate and CCAP in the VDM of Manduca sexta*. Presentation to the Washington & Jefferson College faculty of Neuroscience to attain major research requirement for Neuroscience emphasis.

Conference Abstracts

Bocchine, A.J. Fecych, M.C, Oberlin D.J., Vervaecke L., Murray, C., Christopher, P., Beverly, L.J., Starnes, J.W., Etnier, J.L., FACSM. *Chronic Exercise and Protein-Content of a Single Meal influence Hippocampal-Dependent Learning*. Abstract submitted to present at ACSM National Meeting to take place May 31 – June 4th 2016.

Oberlin, D.J., Fecych M., Murray, C., Vervaecke, L., **Bocchine, A.,** Christopher, P., Morrison, R., Wideman, L., Beverly, L., Starnes, J. FACSM. *Endurance Training and MCT Changes in the Ventromedial Hypothalamus*. Abstract submitted to present at ACSM National Meeting to take place May 31 – June 4th 2016.

Teaching Experience

University of North Carolina at Greensboro, Department of Kinesiology, *Greensboro, NC (Jan '15 – May 15)*

KIN 375L – Exercise Physiology Laboratory: Led class of 16 students in the undergraduate exercise physiology laboratory section of KIN 375 "Physiology of Physical Activity". This involved lecture and various laboratory exercises including VO2 max, heart rate and blood pressure, EEG, and anaerobic power tests. Responsibilities of teaching assistant involved leading lectures and laboratory activities, teaching and grading of formal laboratory reports and exams.

KIN 151 – Beginning Swimming: Led two separate sections of students in a physical activity elective course in the foundations of swimming for aerobic fitness. This course involved teaching and evaluation of the four basic swimming strokes and basic principles of swimming for both recreation and aerobic fitness.

Professional Memberships

- **American Association for the Advancement of Science (AAAS)** *(Apr' 15 – Current)*
- **American College of Sports Medicine (ACSM)** *(Aug' 14 - Current)*
- **Kappa Omicron NU Honor Society (KON)** *(Oct'15 – Current)*