

# Amy M. Knab

Maiden Name: Amy M. Kleinfehn  
Curriculum Vitae: last update May 2017

## Personal Information

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### Office Address:

116F Levine Center for Health and  
Wellness  
1900 Selwyn Avenue  
Charlotte, NC 28271

### Contact Information:

Phone Numbers  
Office, 704-688-2853  
Cell, 614-915-7882  
Email:  
knaba@queens.edu  
amyknab@gmail.com

## Education

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<u>School</u>	<u>Degree</u>	<u>Year</u>
University of North Carolina, Charlotte Charlotte, NC	Interdisciplinary Ph.D. in Biology (Concentration Exercise Physiology)	2009
Saint Mary's College Notre Dame, IN	Biology, BS Minor, Secondary Education	2004

## Professional Experience

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<u>Years</u>	<u>Department, Institute, City; Position</u>
2013-present	Department of Kinesiology, Blair College of Health, Queens University of Charlotte, Charlotte; <b>Associate Professor (tenured, 8-15-2016)</b>
2009-2013	Department of Health Leisure and Exercise Science, Appalachian State University, North Carolina Research Campus, Kannapolis; <b>Assistant Professor</b>
2005-2009	Department of Kinesiology, University of North Carolina, Charlotte; <b>Research Assistant</b> , Mentor: Dr. Tim Lightfoot.
2007-2009	South East American College of Sports Medicine (South East chapter of ACSM); <b>Student Representative to the Executive Board</b>
2004-2005	Myers Park High School, Charlotte NC; <b>Biology Teacher</b>
2004	Penn High School, Mishawaka IN; <b>Student Teacher</b> , Mentor: Ms. Shelly Wilhelm.
2003	Western Michigan University, Kalamazoo MI; <b>Undergraduate Research Fellow</b> , under a National Science Foundation Grant for Undergraduate Research, Mentor: Dr. William Jackson.

## **Teaching Experience**

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### *Queens University of Charlotte*

Special Topics in Kinesiology---Advanced Clinical Exercise Testing and Prescription (KIN 350) (*online*)

Principles of Strength and Conditioning and Exercise Prescription (KIN 412)

Special Topics in Kinesiology—Motor Behavior (KIN 350) (*online*)

Foundations of Exercise and Sport Sciences (KIN 120) (*Traditional and online*)

Nutrition for Exercise and Sport (KIN 312)

Sport and Exercise Physiology (KIN 314) (*Traditional and Hybrid*)

Fitness Training Principles and Applications (KINS 346)

Independent Study in Kinesiology (KIN 316)

Senior Seminar in Exercise and Sport Science (KIN 420)

Gender and Sport Performance (QLC 140)

*\*Have also supervised 30 students on their research and clinical testing related internships with the Exercise and Sport Science Lab*

### *Appalachian State University*

Health and Fitness (HP 1105), Wellness Literacy Course, general education requirement, Fall 2012

Exercise Behavior and Motivation (HON 3115), honors course, Spring 2009, Spring 2010

### *University of North Carolina Charlotte*

Exercise Physiology EX 3280 (86 undergraduate students) team taught

Assistant in Exercise Testing Lab Practicals EX 3287, Spring 2007, Spring 2008

### *Myers Park High School*

Biology I

Biology I Honors

Biology I pre-International Baccalaureate

## **Professional Service**

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### *Reviewer*

Reviewer for Behavioral Brain Research; Brain Research Bulletin; Genes, Brain, and Behavior; International Journal of Nutrition and Exercise Metabolism; International Journal of Diabetes; Medicine and Science in Sports and Exercise (official journal of the American College of Sports Medicine); International Journal of Exercise Science, Texas A&M Huffines Institute for Sports Medicine and Human Performance, The all results journal: Biol.

### *University*

2016	Faculty Personnel Committee, chair of primary unit (BCH), beginning Fall 2016, Queens University of Charlotte
2015-Present	Blair College of Health Wellness Institute Steering Committee member, Queens University of Charlotte
2015	Chair of Health Promotion Faculty Search Committee (April-May 2015)
2015	Internship Presentation Evaluator April 22, 2015
2013-Present	Participate in multiple Queens University of Charlotte Admissions events including most recently: Royals Open House and Scholarship Days.
2013-Present	Work with coaches of athletic teams at Queens to facilitate performance testing as needed and education on nutrition and physiology for performance.
2014-Present	Institutional Review Board Member; Queens University of Charlotte

2014-2015	Honors Program ad hoc committee member; Queens University of Charlotte
2013-present	Blair College of Health Resource Committee; Queens University of Charlotte
2013-2014	Internship Committee; Queens University of Charlotte
2013-2015	Brand Advisory Committee member; Queens University of Charlotte
2011-2013	Office of Student Research Advisory Board member; ASU
2010-2013	Honors College Faculty Governance Committee member; ASU
2009-2013	NCRC Human Performance Laboratory Committee member; ASU
2009-2013	Graduate Faculty Status; ASU

*Regional*

2016-present	Member at large to the South East American College of Sports Medicine
2013-present	Gaston College Health and Fitness Science Advisory Committee
2015	Served as reviewer of abstracts for the South East American College of Sports Medicine.
2016	Chair of Tutorial at South East American College of Sports Medicine Conference
2012	Served as reviewer of abstracts for the South East American College of Sports Medicine.
2012-2015	Outside reviewer of student grant applications to the Sydney and JL Huffines Institute for Sports Medicine and Human Performance at Texas A&M University
2012	Outside reviewer for The University of Missouri Research Board 2012 internal applications.
2011	Served as reviewer of abstracts for the South East American College of Sports Medicine.
2011	Chair of Tutorial at South East American College of Sports Medicine Conference
2010	Chair of symposium at South East American College of Sports Medicine Conference
2007-2009	Student Representative to Executive Board of the South East American College of Sports Medicine

*National*

2008-present	American College of Sports Medicine Student Bowl Planning Committee member
2007-2009	South East Student representative to National American College of Sports Medicine

**Symposia and Invited Talks**

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2014	Invited speaker for Academic Awards Ceremony at Knox High School, Indiana. “Academic Success” April 23 <sup>rd</sup> , 2014.
2013	Moderated the student panel discussion with Michael Pollan, author of The Omnivore’s Dilemma and Cooked – presented by The Learning Society 10/10/13 – “How Cooking Can Change Your Life”
2012	Cabarrus Regional Chamber of Commerce 2M12@46 invited speaker, November 12, 2012.

- 2011 UNC-Charlotte Invited speaker to the senior Kinesiology majors, Sept 7, 2011: "The ASU Human Performance Lab at the NCRC"
- 2011 David H. Murdock Research Institute Seminar Series: Invited Talk. "An animal model of caloric restriction and wheel running: advancing our understanding of the biological controls of voluntary physical activity"
- 2009 Invited guest speaker at the UNCC Ph.D. Colloquium. "Planning your job search while finishing your Dissertation"
- 2008 Research Seminar, Kinesiology Dept. "High active C57L/J mice have different dopaminergic profiles compared to low active C3H/HeJ mice."
- 2008 Kinesiology Department. Conducted workshop on Real Time Polymerase Chain Reaction, theory and actual training.
- 2007 Research Seminar, Kinesiology Dept. "The role of the dopaminergic System in regulation of physical activity in mice."
- 2007 UNCC Biology Seminar, "Reliability of Mouse Endurance Treadmill Test"

## **Research Support and Grants**

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### *Current Research Support*

- 2017 Faculty-Student Undergraduate Research Grant funded by a Title III grant from the US Department of Education, Queens University of Charlotte (internal grant).

### *Past Research Support*

- 2014 Dole Foods Inc. (\$11,318) "Effects of Pre-Exercise Black Currant and Blueberry ingestion on physiologic adaptations to high intensity interval training" Subaward from Dole Foods, Inc. through Appalachian State University. Total Grant Value \$87,970
- 2014 QEP: CONNECT Faculty-student research grant (\$2,000) "A Comparison of the Effect of Tapering on College Age and Masters Distance Runners"
- 2013 Dole Foods Inc. (\$97,599) "Sustained Energy: Influence of ingesting fruit-based carbohydrates and chia seed oil on human running performance." (Co-I)
- 2013 American Pistachio Growers. (\$99,475) "Influence of pistachios on performance and exercise-induced inflammation, oxidative stress, and immune dysfunction in athletes: a metabolomics-based approach." (Co-I)
- 2012 Dole Foods Inc. (\$48,521) "Influence of 6-weeks supplementation with vitamin D Portobello mushroom powder on muscle function and performance, innate immune function, and exercise-induced muscle damage and DOMS in NASCAR pit crew members." (Co-I)
- 2012 P.L. Thomas Co., Inc. (\$34,674) "Rhodiola rosea treatment: A clinical study." (Co-I)
- 2012 Dole Foods Inc. (\$92,877) "Influence of a high polyphenol blended juice on performance and exercise-induced inflammation, oxidative stress, and changes in

immune function in athletes: a metabolomics-based approach.” **(Principal Investigator)**

- 2012 Chia Farms Inc. (\$29,700) “Effects of milled chia seed (Mila) on performance in endurance athletes. (Co-I)
- 2012 Reoxycyn Discovery Group, LLC. (\$50,382) “Effect of ASEA ingestion on treadmill endurance capacity, fuel substrate utilization, tissue inflammation, and tissue oxidative stress in mice”. **(Principal Investigator)**
- 2012 Reoxycyn Discovery Group, LLC. (\$144,592) “An integrated metabolomics and pharmacokinetics strategy for measuring the human metabolite response to ingestion of ASEA.” (Co-I)
- 2012 Dole Foods Inc. (\$92,877) “Influence of Nutrasorb on performance and exercise-induced inflammation, oxidative stress, and changes in immune function in athletes: a metabolomics-based approach.” (Co-I)
- 2012 The National Watermelon Promotion Board. (\$18,480) “Effect of 2-week supplementation of watermelon on pre- and post-exercise metabolic shifts compared to Gatorade condition: A metabolomics based approach.” (Co-I)
- 2012 Dole Foods Inc. (\$36,072) “Influence of 6-weeks supplementation with vitamin D Portobello mushroom powder on muscle function and performance, innate immune function, and exercise-induced muscle damage and DOMS in vitamin D insufficient high school athletes.” (Co-I)
- 2011 Dole Packaged Foods (\$82,194) “Fatty Acid Bioavailability Study of Single Oral Doses of Chia Seed Clusters or Chia Seed Oil in Healthy Subjects” (Co-I)
- 2011 The National Watermelon Promotion Board (\$50,000) “Comparison of watermelon and Gatorade™ on exercise-induced oxidative stress, inflammation, and immune dysfunction in Masters cyclists” (Co-I)
- 2011 Dole Foods Inc. (\$72,158) “Influence of Adding Two Bananas Per Day Over Five Weeks On Heart Disease Risk Factors In Overweight Women: A Randomized, Community Trial” (Co-I)
- 2011 Dole Foods Grant (\$32,625) “Effect of polyphenol rich juice/shake (“Murdock Shake”) on inflammatory and metabolic biomarkers in elite swimming Olympic athletes.” **(Principal Investigator)**
- 2011 McCormick Spice Institute (\$126,500) “Influence of Selected Spices on Endothelial Cell Function, Inflammation, and Oxidative Stress in Overweight Human Subjects” (Co-I)
- 2011 McCormick Spice Institute (\$88,000) “Influence of black pepper on metabolism in post-menopausal women.” (Co-I)
- 2010 Dole Packaged Foods (\$79,902) “Anti-Inflammatory Response to Plasma  $\alpha$ -Linolenic Acid Increase From Chia Seed Ingestion Over 10 Weeks in Overweight/Obese Subjects” (Co-I)
- 2011 NC Central University (\$30,000) “Quercetin, EGCG, and Inflammation in Obese Women and Animal Study” (Co-I)

- 2010 Dole Packaged Foods (\$60,447) “Effects of chia seed on inflammation, immune function, and performance in endurance athletes” (Co-I)
- 2010 Dole Foods: Comparison of bananas and Gatorade on performance and exercise-induced inflammation, oxidative stress, and changes in immune function in endurance athletes \$47,246
- 2010 Chia Farms Inc. (\$14,432) “Plasma EPA, DHA, DPA and ALA Response to 7-weeks Ingestion of Milled Chia Seed” (Co-I)
- 2009 Appalachian State University, URC Faculty Grant: “Changes in physical activity behavior due to caloric restriction are mediated by changes in the dopamine system.”  
**(Principle Investigator)**
- 2012 Undergraduate Research Grant, ASU Office of Student Research (summer, \$500 for student's research)
- 2012 Undergraduate Research Assistantship, ASU Office of Student Research (summer, \$1000 stipend for student)
- 2011 Undergraduate Research Assistantship, ASU Office of Student Research (summer, \$1000 stipend for student)
- 2010 Undergraduate Research Assistantship, ASU Office of Student Research (summer, \$1000 stipend for student)

### **Past and Present Mentoring**

- 2017 Currently mentoring 6 students for internships and/or independent study research projects. Traveled with 5 students to the South East American College of Sport Medicine Conference in February 2017 where they presented their research. Traveled with one student to the National ACSM conference in Denver to present his research.
- 2016 Mentored six students for internships and/or independent study research projects in the Exercise and Sport Science Lab operating the Community Fitness Testing Program.
- 2015 Mentored 5 students for internships in the Exercise and Sport Science Lab operating the Community Fitness Testing Program. Also, mentored 2 independent study students.
- 2014 I mentored 15 undergraduate students completing internships and independent studies in my lab for a large scale human subject’s research project.
- 2014 Acquired QEP: CONNECT faculty-student research grant and mentored a rising senior through a human subject research project (Summer 2014).
- 2014 Mentored 4 students with independent study projects during the Spring 2014 semester. One conducted research study; three started the Fitness Testing Program in the Exercise and Sport Science Lab.
- 2013-2014 Mentored several student athletes in the area of nutrition for performance.
- 2012 Mentored two undergraduate students in my lab with independent thesis projects during the summer 2012. Served on one of these student’s thesis committee.

- 2012 Assisted in mentoring and training 5 undergraduate exercise physiology majors from UNC – Charlotte in our labs at the NCRC during the Spring Semester.
- 2011 Mentored two undergraduate students from ASU who completed a summer animal study at the NCRC (lead to them presenting this data at a regional conference).
- 2011 Co-mentored 5 interns from the Rowan Cabarrus Community College, in both the biochemistry lab and human performance lab at the North Carolina Research Campus.
- 2010 (summer) Mentored three undergraduate students who conducted an animal study under my direct supervision (lead to them presenting this data at a regional conference).
- 2009 (summer) Co-mentored an undergraduate student in biochemistry lab.
- 2006-2007 Mentored pre-doctoral students in interdisciplinary biology program.

### **Editorial Contributions**

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- 2008 Published Student Article for July issue of online ACSM newsletter  
2007-2008 SEACSM Newsletter: Contributed several student related articles and recruitment articles

### **Publications**

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Bullock Spt GS, Brookerson N, **Knab AM**, Butler RJ. Examining fundamental movement competency and closed chain upper extremity dynamic balance in swimmers. *J Strength Cond Res.* 2016 Sep 16. PMID: 27669185

Shanely RA, Nieman DC, Perkins-Veazie P, Henson DA, Meaney MP, **Knab AM**, Cialdella-Kam L. Comparison of Watermelon and Carbohydrate Beverage on Exercise-Induced Alterations in Systemic Inflammation, Immune Dysfunction, and Plasma Antioxidant Capacity. *Nutrients.* 2016 Aug 22;8(8). PMID: 27556488

Cialdella-Kam L, Nieman DC, **Knab AM**, Shanely RA, Meaney MP, Jin F, Sha W, Ghosh S. A Mixed Flavonoid-Fish Oil Supplement Induces Immune-Enhancing and Anti-Inflammatory Transcriptomic Changes in Adult Obese and Overweight Women-A Randomized Controlled Trial. *Nutrients.* 2016 May 11;8(5). PMID: 27187447.

**Knab AM**, Nieman DC, Gillitt ND, Shanely RA, Cialdella-Kam L, Henson D, Sha W, Meaney MP. Effects of a freeze-dried juice blend powder on exercise-induced inflammation, oxidative stress, and immune function in cyclists. *Appl Physiol Nutr Metab.* 2014 Mar;39(3):381-5.

Shanely RA, Nieman DC, **Knab AM**, Gillitt ND, Meaney MP, Jin F, Sha W, Cialdella-Kam L. Influence of vitamin D mushroom powder supplementation on exercise-induced muscle damage in vitamin D insufficient high school athletes. *J Sports Sci.* 2014 Apr;32(7):670-9.

Shanely RA, Nieman DC, Zwetsloot KA, **Knab AM**, Imagita H, Luo B, Davis B, Zubeldia JM. Evaluation of Rhodiola rosea supplementation on skeletal muscle damage and inflammation in runners following a competitive marathon. *Brain Behav Immun.* 2013 Sep 18. pii: S0889-1591(13)00459-5.

Nieman DC, Gillitt ND, **Knab AM**, Shanely RA, Pappan KL, Jin F, Lila MA. Influence of a polyphenol-enriched protein powder on exercise-induced inflammation and oxidative stress in athletes: a randomized trial using a metabolomics approach. *PLoS One*. 2013 Aug 15;8(8):e72215.

LaVoy EC, Nieman DC, Henson DA, Shanely RA, **Knab AM**, Cialdella-Kam L, Simpson RJ. Latent cytomegalovirus infection and innate immune function following a 75 km cycling time trial. *Eur J Appl Physiol*. 2013 Oct;113(10):2629-35

Cialdella-Kam L, Nieman DC, Sha W, Meaney MP, **Knab AM**, Shanely RA. Dose-response to 3 months of quercetin-containing supplements on metabolite and quercetin conjugate profile in adults. *Br J Nutr*. 2013 Jun;109(11):1923-33

Nieman DC, Cialdella-Kam L, **Knab AM**, Shanely RA. Influence of Red Pepper Spice and Turmeric on Inflammation and Oxidative Stress Biomarkers in Overweight Females: A Metabolomics Approach. *Plant Foods Hum Nutr*. 2012 Dec;67(4):415-21.

**Knab AM**, Nieman DC, Gillitt ND, Shanely RA, Cialdella-Kam L, Henson DA, Sha W. Effects of a Flavonoid-rich Juice on Inflammation, Oxidative Stress, and Immunity in Elite Swimmers: A Metabolomics Based Approach. *Int J Sport Nutr Exerc Metab*. 2013 Apr;23(2):150-60.

Nieman DC, Gillitt ND, Henson DA, Sha W, Shanely RA, **Knab AM**, Cialdella-Kam L, Jin F. Bananas as an energy source during exercise: a metabolomics approach. *PLoS One*. 2012; 7(5):e37479. Epub 2012 May 17.

Martin M. Root, Megan C. McGinn , David C. Nieman, Dru A. Henson, Serena A. Heinz, R. Andrew Shanely, **Amy M. Knab**, and Fuxia Jin. Combined Fruit and Vegetable Intake Is Correlated with Improved Inflammatory and Oxidant Status from a Cross-Sectional Study in a Community Setting. *Nutrients* 2012, 4, 29-41; doi:10.3390/nu4010029

**Amy M. Knab**, Robert S. Bowen, Alicia T. Hamilton, J Timothy Lightfoot. Pharmacological manipulation of the dopaminergic system affects wheel running activity in differentially active mice. *Biological Regulators and Homeostatic Agents*. 2012. 26(1): 119-29.

**Amy M. Knab**, David C. Nieman, Joshua J. Broman-Fulks, William H. Canu, Wei Sha. Exercise Frequency Is Related to Psychopathology but not Neurocognitive Function. *Med Sci Sports Exerc*. 2012 Jul;44(7):1395-400.

**Knab AM**, Shanely RA, Jin F, Austin MD, Sha W, Nieman DC. Quercetin with vitamin C and niacin does not affect body mass or composition. *Appl Physiol Nutr Metab*. 2011 Jun;36(3):331-8.

**Knab AM**, Shanely RA, Henson DA, Jin F, Heinz SA, Austin MD, Nieman DC. Influence of quercetin supplementation on disease risk factors in community-dwelling adults. *J Am Diet Assoc*. 2011 Apr;111(4):542-9.

**Knab AM**, Shanely RA, Corbin K, Jin F, Sha W, Nieman DC. A 45-Minute Vigorous Exercise Bout Increases Metabolic Rate for 14 Hours. *Med Sci Sports Exerc*. 2011 Sep;43(9):1643-8

Lightfoot JT, Leamy L, Pomp D, Turner MJ, Fodor AA, **Knab A**, Bowen RS, Ferguson D, Moore-Harrison T, Hamilton A. Strain screen and haplotype association mapping of wheel running in inbred mouse strains. *J Appl Physiol*. 2010 Sep;109(3):623-34.

Jin F, Nieman DC, Shanely RA, **Knab AM**, Austin MD, Sha W. The variable plasma quercetin response to 12-week quercetin supplementation in humans. *Eur J Clin Nutr*. 2010 Jul;64(7):692-7.



Shanely RA, **Knab AM**, Nieman DC, Jin F, McAnulty SR, Landram MJ. Quercetin supplementation does not alter antioxidant status in humans. *Free Radic Res.* 2010 Feb;44(2):224-31.

Lightfoot, JT, L Leamy, D Pomp, MJ. Turner, AA.Fodor, **A Knab**, RS Bowen, D Ferguson, T Moore-Harrison, A Hamilton. Strain Screen and Haplotype Association Mapping of Wheel Running in Inbred Mouse Strains. *J Appl Physiol. (In Press).* 2010.

**Knab, AM**, RS Bowen, AT Hamilton, AA Gulledge, JT Lightfoot. Altered dopaminergic profiles: implications for the regulation of voluntary physical activity. *Behavioural Brain Research.* 2009 Dec 1;204(1):147-52. Epub 2009 Jun 9.

**Knab AM**, Lightfoot JT. Does the difference between physically active and couch potato lie in the dopamine system? *Int J Biol Sci.* 2010 Mar 9;6(2):133-50. Review

**Knab, AM**, RS Bowen, T Moore-Harrison, AT Hamilton, MJ Turner, JT Lightfoot. Repeatability of exercise behaviors in mice. *Physiology & Behavior.* 2009 Oct 19;98(4):433-40. Epub 2009 Jul 17.

Bowen, RS, **AM Knab**, AT Hamilton, JA Rettew, T Moore-Harrison, JT Lightfoot. Effects of supra-physiological doses of sex steroids on wheel running activity in mice. *Endocrinology.* 2009 In Review.

Lightfoot, JT, MJ Turner, **AK Knab**, AE Jedlicka, T Oshimura, J Marzec, W Gladwell, LJ Leamy, SR Kleeburger. Quantitative trait loci (QTL) associated with maximal exercise endurance in mice. *Journal of Applied Physiology* 103(1): 105-110, 2007.

## **Presentations**

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J. Kojima, M. Kroger, A.R. DeAngelis, **A.M. Knab [senior author]** “BIOMECHANICAL ANALYSIS OF THE START IN COLLEGE SWIMMERS” South East American College of Sports Medicine Conference, Greenville SC, February 18th 2017. 8:00-10:00 ORAL FREE COMMUNICATION III (Ballroom F)

A. Bronkar, N. Church, A. Blount, M. Mancini, E. Drake, D. Hughes, **A.M. Knab [senior author]** “ENERGY EXPENDITURE DURING SWIM AND DRY LAND WORKOUTS IN COLLEGE SWIMMERS” South East American College of Sports Medicine Conference, Greenville SC, February 18th 2017. P 208 9:30-11:00 POSTER FREE COMMUNICATIONS V (Studio 220)

H. Pressley, T. Pardue, **A.M. Knab [senior author]** “EFFECT OF SLEEP, NUTRITION, STRESS, AND IMMUNE FUNCTION ON PERFORMANCE IN COLLEGIATE SWIMMERS” South East American College of Sports Medicine Conference, Greenville SC, February 16th 2017. P2 4:00-6:00 POSTER FREE COMMUNICATIONS I (Studio 220)

Bullock GS, Harnish Christopher R., **Knab AM**, Krysak S, Blount A “Axiomatic movement and dynamic balance disparities between varying competition levels in golfers” American College of Sports Medicine Conference. Denver CO. C-32 Session Viewing Date/Time: Thursday Jun 1, 2017 7:30 AM - 12:30 PM Presentation Time: 8:00am - 9:30am

Hector Tricas, **Amy M. Knab**, Teneal Pardue. An International Perspective of the Impact of Physical Education during school life on Current Physical Activity. Presented at the National Council on Undergraduate Research. Asheville NC April 7-9, 2016.

**Knab AM.** “How many calories are you actually burning during your workout? Exercise and Sport Science students have scientifically put predictions from your fitbit to the test” Faculty 1st Friday Invited speaker. Queens University of Charlotte. February 3rd, 2017.

Grange AL, Kaley EB, Chestnut R, Arakelian CR, Nieman DC, John CS, **Knab AM [senior author]**. “SURVEY OF RECOVERY MEASURES IN ELITE SWIMMERS” Feb. 19<sup>th</sup> 2016, Poster Presentation. South East American College of Sports Medicine Conference, Greenville SC.

Fredrick Nordhoff, Hanna Hasker, Becca Bogart, Kristi Rose, John Repede, **Amy Knab [senior author]**, Kinesiology Department, Queens University of Charlotte; “RELATIONSHIP BETWEEN NUTRITIONAL INTAKE AND STRESS TO CHANCE OF SICKNESS IN COLLEGE SWIMMERS”— 9:30-10:50 POSTER FREE COMMUNICATIONS II P53; South East American College of Sports Medicine, Friday February 13<sup>th</sup>, 2015 Jacksonville Fl.

Garrett Bullock, Robert S. Bowen, Fredric Nordhoff, **Amy M. Knab [senior author]**. Two Week Taper Not Effective In Improving 5k Performance: Masters vs. young runners. Thematic Poster Saturday May 30, 2015 9:00 AM - 11:00 AM Session Number: G-25 at the American College of Sports Medicine Conference; San Diego CA

**Amy M. Knab**; “Nutrition for sport performance: Swimming” Invited speaker for two Queen’s hosted swim camps (June 12<sup>th</sup>, 2014 and July 15<sup>th</sup>, 2014)

**Amy M. Knab**; presented sport specific talks on nutrition to the following Queens University of Charlotte athletic teams: Men’s and Women’s Golf (February 24<sup>th</sup> 2016), Women’s soccer (April 24<sup>th</sup>, 2014), Women’s Basketball (Oct. 7, 2013 and April 17<sup>th</sup>, 2014), Men’s basketball (Sept. 9, 2013), Men’s and Women’s Cross Country (Dec. 7, 2013), Women’s Lacrosse (Jan. 7, 2014), and Men’s and Women’s Swimming (Jan. 10, 2014).

L. Grant Canipe, Lana Ray, Meghan E. Kusper, R. Andrew Shanely, **Amy M. Knab (Senior Author)**. Poster: "Caloric restriction causes differential brain gene expression in wheel running and sedentary mice." SEACSM, Jacksonville FL, February 2012.

**Amy M. Knab**, Nicholas D. Gillitt, Lynn Ciadella-Kam, David C. Nieman, FACSM, R. Andrew Shanely. Board #177 MAY 30 11:00 AM - 12:30 PM. “Polyphenol Rich Juice Supplementation in Olympic Swimmers does not alter Inflammation or Immune Biomarkers” ACSM San Francisco CA, 2012.

David C. Nieman, FACSM, Nicholas Gillitt, Wei Sha, Andrew Shanely, **Amy Knab**, Lynn Kam Board #114 MAY 30 11:00 AM - 12:30 PM. “Similar Metabolite Shifts Following 75-Km Cycling TimeTrials When Ingesting Bananas Or a Carbohydrate Beverage.” ACSM San Francisco CA, 2012.

R. Shanely, D.C. Nieman, D.A. Henson, **A.M. Knab**, L. Cialdella-Kam, M. Meaney, S. Baxter and W. Sha. “Influence of a Redox-Signaling Supplement on Biomarkers of Physiological Stress in Athletes: A Metabolomics Approach.” Experimental Biology, San Diego CA April 21-25, 2012.

K. Kennerly, **A. Knab**, L. Kam, D. Henson, M.P. Meaney and D.C. Nieman. 651.8 “The chronic effect of quercetin and epigallocatechin gallate-based supplementation on exercise performance in mice.” Experimental Biology, San Diego CA April 21-25, 2012.

L. Cialdella-Kam, D.C. Nieman, W. Sha, M.P. Meaney, **A.M. Knab** and R.A. Shanely. 637.4 “Dose-response effect of long-term quercetin supplementation on metabolomics and quercetin conjugate profile in adults.” Experimental Biology, San Diego CA April 21-25, 2012.

L. Grant Canipe, Meghan Kusper, Jenna Dixon, R. Andrew Shanely, **Amy Knab**

The 14th Annual Celebration of Student Research and Creative Endeavors Thursday, April 14, 2011 "Caloric restriction in mice results in increased voluntary wheel running and gene expression changes in the striatum"

Kusper M, Canipe LG, Dixon J, **Knab AM**, Shanely RA.

The 14th Annual Celebration of Student Research and Creative Endeavors Thursday, April 14, 2011. Poster # P6U.1. "Moderate caloric restriction suppresses microRNAs mir-696 and mir-199a in a voluntary wheel running model."

**Knab, Amy M.**; Shanley, R. Andrew; Corbin, Karen; Jin, Fuxia; Sha, Wei; Nieman, David C. A 45-minute Vigorous Exercise Bout Increases Metabolic Rate for 19 hours: 1329: Board #65 June 1 11:00 AM - 12:30 PM Medicine & Science in Sports & Exercise. 43(5):266, May 2011.

Nieman, David C.; Broman-Fulks, Josh J.; Canu, William H.; **Knab, Amy M.**; Sha, Wei. Perceived Physical Fitness And Frequency Of Aerobic Exercise Are Not Related To Neurocognitive Function In Community Adults: 1315: Board #51 June 1 11:00 AM - 12:30 PM Medicine & Science in Sports & Exercise. 43(5):260-261, May 2011.

Shanely, R. Andrew; **Knab, Amy M.**; Sha, Wei; Henson, Dru A.; Hoffman, Eric P.; Nieman, David C. Single Nucleotide Polymorphisms and Inflammation and Oxidative Stress Biomarkers in Community Adults: 2200: Board #77 June 2 3:30 PM - 5:00 PM Medicine & Science in Sports & Exercise. 43(5):580, May 2011

**Knab, Amy M.**; Shanely, R. Andrew; Jin, Fuxia; Austin, Melanie D.; Nieman, David C. Quercetin Supplementation Does Not Affect Body Mass Or Composition In Community Adults: 2574: Board #182 June 4 8:00 AM - 9:30 AM Medicine & Science in Sports & Exercise. 42(5):674, May 2010

Nieman, David C.; Henson, Dru A.; Heinz, Serena; Shanely, R. Andrew; **Knab, Amy M.**; Jin, Fuxia; Root, Martin M. Lower Chronic Inflammation Among Adults With Higher Self-Reported Physical Fitness: 1156: Board #5 3:15 PM - 5:15 PM Medicine & Science in Sports & Exercise. 42(5):178-179, May 2010.

Shanely, R. Andrew; **Knab, Amy M.**; Dixon, Jenna M.; Kusper, Meghan; Canipe, L. Grant III. Moderate Caloric Restriction Suppresses microRNAs miR-696 and miR-199a in a Voluntary Running Wheel Model. Medicine & Science in Sports & Exercise. 42(10):32-33, October 2010.

**A.M. Knab**, R.A. Shanely, D.A. Henson, F. Jin, S.A. Heinz, M.D. Austin and D.C. Nieman. Influence of quercetin supplementation on disease risk factors in community-dwelling adults. Poster session 721. Experimental Biology, Anaheim CA, 2010

F. Jin, D.C. Nieman, R.A. Shanely, **A.M. Knab** and M.D. Austin. Plasma quercetin response to 12-weeks supplementation: a randomized community clinical trial. Poster session 331. Experimental Biology, Anaheim CA, 2010

K.D. Corbin, **A.M. Knab**, R.A. Shanely, D.C. Nieman and S.H. Zeisel. Reproducibility of 24-hour energy expenditure measured by whole-room indirect calorimetry in lean and obese males. Poster session 554/ Experimental Biology, Anaheim CA, 2010

R.A. Shanely, **A.M. Knab**, D.C. Nieman, F. Jin, S.R. McAnulty and M.J. Landram. Human antioxidant status is not altered by quercetin supplementation. Poster session 321. Experimental Biology, Anaheim CA, 2010.

M. Root, D.C. Nieman, D.A. Henderson, S.A. Heinz, R.A. Shanely, **A.K. Knab** and F. Jin. Self-reported fruit and vegetable intake and inflammatory and oxidant status in a community setting. Poster session 724. Experimental Biology, Anaheim CA, 2010.

Shanely, R. Andrew; **Knab, Amy**; Jin, Fuxia; Root, Martin; Nieman, David C. Self-Reported Fitness Level is Predictive of Oxidative Stress: 1658: Board #95 June 2 3:30 PM - 5:00 PM  
Medicine & Science in Sports & Exercise. 42(5):353-354, May 2010

**Knab, AM**, Bowen, RS, Hamilton, AT, Moore-Harrison, TL, Ferguson, DP, Lightfoot, JT. Central Control of Physical Activity in Mice is mediated by D1 receptors and the Tyrosine Hydroxylase Enzyme. *Medicine & Science in Sports & Exercise*. 41(5):3, May 2009

Bowen, Robert S.; Trynor, Alicia A.; **Knab, Amy M.**; Huet-Hudson, Yvette M.; Lightfoot, J. Timothy. Sex Steroid Regulation of Daily Physical Activity Levels in Male Balb/cJ Mice: 973: May 30 4:00 PM - 4:15 PM *Medicine & Science in Sports & Exercise*. 40(5):S105-S106, May 2008.

**A.M. Knab**, R.S. Bowen, A.T. Hamilton, A. Gulledge, J.T. Lightfoot. "High Active C57L/J Mice have Different Dopaminergic Profiles Compared to Low Active C3H/HeJ Mice." American Physiological Society, Integrative Biology of Exercise Intersociety Meeting. September 27<sup>th</sup>, 2008. Hilton Head, SC. *This presentation was also selected as a finalist for the Graduate Poster Session in the Charlotte Biotechnology Conference, UNCC, held October 28<sup>th</sup> 2008.*

**A.M. Knab**, R.S. Bowen, A.A. Trynor, S.M. Courtney, J.T. Lightfoot Ph.D. FACSM. "Reliability study of mouse exercise endurance treadmill test" South East ACSM graduate award poster presentation. Feb. 14<sup>th</sup>, 2008 Birmingham AL.

**Knab, AM**, A Gulledge, L Schrum, JT Lightfoot. "Activity Level in Mice is not associated with Dopamine 2 Receptor Expression in Heart or Muscle Tissue." *Medicine & Science in Sports & Exercise*. 39(5) Supplement:S278, 2007

Moore, T, A Trynor, J Moser, **A Knab**, RS Bowen, E Friesen, K Loiseau, MJ Turner, SR Kleeberger, JT Lightfoot. "Low exercise endurance is heritable." *Medicine and Science in Sports Exercise*, 39(5):S469 2007.

**Kleinfehn, AM**, MJ Turner, A Jedlicka, T Oshimura, J Marzec, W Gladwell, JT Lightfoot, FACSM, SR Kleeberger. "Fine Map Genotyping of Exercise Endurance Quantitative Trait Loci (QTLs)." *Medicine and Science in Sports and Exercise*. 38(5) S366, 2006.

Lightfoot, JT, FACSM, S Carter, MJ Yost, J Moser, **AM Kleinfehn**, MJ Turner, SR Kleeberger. "High Wheel-Running Activity is inherited in Mice." *Medicine and Science in Sports and Exercise*. 38(5) S48, 2006.

Carter, SE, **AM Kleinfehn**, MJ Yost, MJ Turner, JT Lightfoot. "Female F2 mice are more active than male F2 mice." Southeast American College of Sports Medicine. February 9-11, 2006

Yost, MJ, SE Carter, **AM Kleinfehn**, MJ Turner, JT Lightfoot. "Lack of relationship between weight and physical activity in mice." Southeast American College of Sports Medicine. February 9-11, 2006

### **Professional Memberships**

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American College of Sports Medicine. ID # 631988 (current since 2007)  
South East American College of Sports Medicine (current since 2007)

### **Awards and Honors**

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Sideline Coach Women's Lacrosse Queens University of Charlotte, Feb. 28<sup>th</sup> 2015; Feb. 21<sup>st</sup> 2016  
Honorary Coach Women's Volleyball Queens University of Charlotte, Sept. 19<sup>th</sup>, 2014; Oct. 10<sup>th</sup> 2016  
Awarded Summer QEP: CONNECT faculty-student research award (\$2,500 stipend, \$2000 reimbursement for project related supplies), Queens University of Charlotte 2014  
Awarded Summer Research Stipend (\$5,000), College of Health Sciences, ASU 2012  
Awarded Summer Research Stipend (\$5,000), College of Health Sciences, ASU 2011  
Giles Dissertation Year Fellowship Award Winner, UNCC, 2008-2009  
Selected as finalist in Graduate Poster Competition, Biotechnology Conference, UNCC, 2008  
2<sup>nd</sup> Place, Graduate Student Research Fair, UNCC, 2008  
SEACSM top 7 doctoral student research awards, 2008  
Elected student representative to Executive Board of SEACSM, 2007  
Tuition Waiver Award, Through the Graduate Assistant Support Plan at UNCC, 2005-2009  
Graduate Research Assistantship, NIH-RO1AR050085, 2005-2009  
Crystal Apple Award for Outstanding New Teacher, Myers Park High School, 2005  
*Valedictorian* of class of 2004, Saint Mary's College  
Captain of Saint Mary's College Swim Team, 2003-2004  
Kappa Gamma Pi, National Honor Society for Catholic Colleges, 2004  
Sigma Xi Biological Research Award, Saint Mary's College, 2004  
Outstanding Future Educators Award,  
Indiana Association of Colleges for Teacher Education, 2004  
Pi Lambda Theta Educational Honorary, Saint Mary's College, 2004  
Michigan Intercollegiate Athletic Association Academic Honor Roll, SMC, 2002-2004  
Dean's List, Saint Mary's College, six semesters  
Dean's List, Butler University, two semesters  
Beta Beta Beta Biological Honor Society, Saint Mary's College, 2003-2004  
Saint Mary's College Presidential Scholarship, 2001-2004  
Vi Bern Foundation Scholarship award winner, Saint Mary's College, 2004