

## CURRICULUM VITAE

### Marcos A. Amalbert-Birriel, MS

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#### EDUCATION

2018- Ph.D., Kinesiology  
University of Massachusetts Amherst  
2016 M.Ex.Sc., Exercise Sciences  
University of Puerto Rico  
2012 B.S., Biology  
University of Puerto Rico

#### RESEARCH EXPERIENCE

Research Assistant

2019- **University of Massachusetts, Amherst**  
PI: Dr. John R. Sirard  
Grant: NIH-funded R01 NIH- NIDDK 5R01DK110148 (MOCA)  
Role: Code movement behaviors, analyze accelerometer data, and participate in the development of new algorithms for data analysis. Analyzing physical activity and sedentary behavior data.

Research Assistant

2019- **University of Massachusetts, Amherst**  
PI: Dr. John R. Sirard  
Grant: NIH-funded R01 NIH- NICHD - 5R01HD086259 (FAST)  
Role: Perform the anthropometric measures and administer surveys on participants, serve as translator for the Spanish-speaking participants.

Research Assistant

2018- 2019 **University of Massachusetts, Amherst**  
PI: Dr. Catrine Tudor-Locke  
Grant: NIH-funded R01 NIH-NIA-5R01AG049024 (CADENCE-Adults)  
Role: Prepare and perform the cardiometabolic, anthropometric and walking measures on participants.  
Analyzing physical activity, sedentary behavior and cardiometabolic data.

Research Assistant

2018-2019 **University of Massachusetts, Amherst**  
PI: Dr. Catrine Tudor-Locke  
Grant: NIH-funded R01 Supplement NIH-NIA-5R01AG049024 (CADENCE-Adults)  
Role: Prepare and perform cardiorespiratory peak tests on participants.  
Analyzing physical activity, sedentary behavior and cardiometabolic data.

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Research Assistant

2017

**University of Puerto Rico, Medical Sciences Campus**

PI: Dr. Farah A. Ramírez-Marrero and Dr. Valerie Wojna, MD

Grant: NIH-funded R21 R21MH095524 CMEx investigation (Neurocognitive, Metabolic, Anthropometric, Body Composition and Cardiorespiratory Fitness in women HIV+).

Role: Analyzing physical activity and sedentary behavior.

Prepare and perform the cardiorespiratory peak test and anthropometric measures on patients.

Supervise the exercise training program of the patients.

Research Assistant

2016

**University of Puerto Rico, Rio Piedras Campus**

PI: Dr. Farah A. Ramírez-Marrero and Dr. Lucía del R. Martínez-Colón

Grant: FIPI Institutional Grant AFAN (Physical Activity, Physical Fitness, Nutrition and Self-Efficacy).

Role: Analyzing physical activity and sedentary behavior.

Prepare and perform the cardiorespiratory test and anthropometric measures on children.

## HONORS AND AWARDS

- |      |   |
|------|---|
| 2019 | School of Public Health and Health Sciences Dean's PhD Fellowship Recipient<br>USD \$10,000 (Extension Awarded)   |
| 2019 | American College of Sports Medicine Leadership and Diversity Training Program<br>Travel Award Recipient   |
| 2018 | Exceptional Merit Recognition from the Department of Graduate Studies of the<br>Education Faculty of the University of Puerto Rico, Rio Piedras Campus      |
| 2018 | School of Public Health and Health Sciences Dean's PhD Fellowship Recipient<br>USD \$10,000   |
| 2018 | Spaulding-Smith Fellowship Recipient University of Massachusetts, Amherst<br>USD \$25,000   |
| 2016 | Federation of American Societies for Experimental Biology, Maximizing Access<br>to Research Careers Travel Award. Poster presenter award<br>USD \$1,872     |
| 2015 | Federation of American Societies for Experimental Biology, Maximizing Access<br>to Research Careers Travel Award. Poster presenter award<br>USD \$1,872     |
| 2014 | Federation of American Societies for Experimental Biology, Maximizing Access<br>to Research Careers Travel Award. Mentor/mentee travel award<br>USD \$1,872 |

## PUBLICATIONS

### Letter's to the Editor

1. Moore, C. C., Aguiar E. J., Gould, Z. R., **Amalbert-Birriel, M. A.** & Ducharme, S. W., (2019) Letter to the editor regarding the article "Walking cadence required to elicit criterion moderate-intensity physical activity is moderated by fitness status" by Abt et al. (2019), *Journal of Sports Sciences*, DOI: [10.1080/02640414.2019.1697484](https://doi.org/10.1080/02640414.2019.1697484)

## CURRICULUM VITAE

### Manuscripts Submitted/Under Review

2. Santiago-Rodríguez, M., Bustamante, E., **Amalbert-Birriel, M.**, Martínez-Colón, L. R., Nevárez, C., Rivera-Morales, M., Ramirez-Marrero, F., School Physical Environment, Physical Activity, and Sedentary Time among Children in Puerto Rico *Journal of Community Health* (Submitted)
3. Ramírez-Marrero, F. A., Pérez-Frontera, S., **Amalbert-Birriel, M. A.**, Matos, M., Santana-Bagur, J., Frontera, W., Wojna, V., Effects of low volume high intensity interval training in Hispanic HIV+ Women *Journal of Acquired Immune Deficiency Syndromes* (Submitted)

### CONFERENCE PRESENTATIONS

#### Published Abstracts

4. **Amalbert-Birriel, M.A.**, Moore, C.C., McCullough, A.K., Ducharme, S.W., Gould, Z.R., Sands, C.J., Aguiar, E.J., Schuna, J.M., Barreira, T.V., Chipkin, S.R., Tudor-Locke, C. Device-specific Cadence (steps/min) Thresholds For Metabolic Intensities of Walking. *Medicine & Science in Sports & Exercise*, 2019, 51(5S):296. *American College of Sports Medicine Annual Meeting*, Orlando, FL, USA, May 28-June 1, 2019.
5. Ducharme, S.W., Aguiar, E.J., McCullough, A.K., Moore, C.C., Sands, C.J., **Amalbert-Birriel, M.A.**, Gould, Z.R., Schuna, J.M., Tiago, V.B., Chipkin, S.R., Tudor-Locke, C. Do Older Adults Achieve Moderate Intensity When Walking At Their Self-selected Pace? *Medicine & Science in Sports & Exercise*, 2019, 51(5S):241. *American College of Sports Medicine Annual Meeting*, Orlando, FL, USA, May 28-June 1, 2019.
6. Gould, Z.R., Ducharme, S.W., McCullough, A.K., Moore, C.C., Sands, C.J., **Amalbert-Birriel, M.A.**, Aguiar, E.J., Schuna, J.M., Barreira, T.V., Chipkin, S.R., Tudor-Locke, C. Cadence (steps/min) Thresholds for Relative Intensity Indicators In Older Adults. *Medicine & Science in Sports & Exercise*, 2019, 51(5S):164. *American College of Sports Medicine Annual Meeting*, Orlando, FL, USA, May 28-June 1, 2019.
7. Ramírez-Marrero, F.A., Amalbert-Birriel, M.A., Santana-Bagur, J.L., Wojna, V., Frontera, W. Mechanical Efficiency After High Intensity Interval Training In Hiv+ Hispanic Women. *Medicine & Science in Sports & Exercise*, 2019, 51(5S):533. *American College of Sports Medicine Annual Meeting*, Orlando, FL, USA, May 28-June 1, 2019.
8. Tudor-Locke C., Ducharme, S.W., McCullough, A.K., Moore, C.C., Sands, C.J., Gould, Z.R., **Amalbert-Birriel, M.A.**, Aguiar, E.J., Schuna, J.M. Jr., Barreira, T.V., & Chipkin, S.R. Moderate Intensity Walking Cadence (Steps/min) in 61-85 Year Old Adults. *Medicine & Science in Sports & Exercise*, 2019, 51(5S):486. *American College of Sports Medicine Annual Meeting*, Orlando, FL, USA, May 28-June 1, 2019.
9. Ducharme, S.W., Aguiar, E.J., Moore, C.C., **Amalbert-Birriel M.A.**, Sands, C.J., Gould Z.R., McCullough A.K., & Tudor-Locke, C. *Gerontological Society of America Annual Scientific Meeting*, Boston, MA, Nov 14-18.

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10. McCullough A.K., Aguiar E.J., Moore C.C., **Amalbert-Birriel M.A.**, Gould Z.R., Ducharme S.W., Tudor-Locke C. *Gerontological Society of America Annual Scientific Meeting*, Boston, MA, Nov 14-18.
11. Romero-Reyes, Amarilys; Ramirez-Marrero, Farah, A.; **Amalbert-Birriel, Marcos**; Medina-Encarnacion, Annette; Santana-Bagur, Jorge; Frontera, Walter; Wojna, Valerie: Feasibility of A Low Volume HIIT Intervention In HIV+ Hispanic Women with Neurocognitive Impairment *American College of Sports Medicine 65<sup>th</sup> Annual Meeting*. Minneapolis, MN. May 29-June 2, 2018.
12. **Amalbert-Birriel, Marcos A.**; del R Martínez-Colón, Lucía; Amaral-Figueroa, Marta I.; Ramírez-Marrero, Farah A.: Sedentary Time and Anthropometric Characteristics Among Hispanic Children in Puerto Rico. *American College of Sports Medicine 64<sup>th</sup> Annual Meeting*. Denver, CO. May 30-June 3, 2017.
13. Santiago-Rodriguez, Maria Enid; **Amalbert-Birriel, Marcos A.**; Ramírez-Marrero, Farah A.: Relationship Between School Physical Environment and Sedentary Time Among Children in Puerto Rico. *American College of Sports Medicine 64<sup>th</sup> Annual Meeting*. Denver, CO. May 30-June 3, 2017.
14. **Amalbert-Birriel, Marcos A.**; Santiago-Rodríguez, María E.; González-Rodríguez, Alexis; Martínez, Lucia del R.; Rivera, Mercedes; Ramírez-Marrero, Farah A.: Health Related Fitness, Sedentary Time and Self-Esteem Among Hispanic Children in Puerto Rico. *American College of Sports Medicine 63<sup>rd</sup> Annual Meeting*. Boston, MA. May 31-June 4, 2016.
15. González-Rodríguez, Alexis; Santiago-Rodríguez, María E.; **Amalbert-Birriel, Marcos A.**: Association Between Children's Screen Time and Parent's Sitting Time in Puerto Rico. *American College of Sports Medicine 63<sup>rd</sup> Annual Meeting*. Boston, MA. May 31-June 4, 2016.
16. Torres-Ayala, Gloria M.; **Amalbert-Birriel, Marcos A.**; Ramirez Marrero, Farah A.: Association Between Anthropometric Measures and Sedentary Time in HIV+ Adults in Puerto Rico. *American College of Sports Medicine 63<sup>rd</sup> Annual Meeting*. Boston, MA. May 31-June 4, 2016.
17. **Amalbert-Birriel, Marcos A.**; Santiago-Rodríguez, María Enid; González-Rodríguez, Alexis.: Breaks of Sedentary Time and Physical Fitness Among Hispanic Children in Puerto Rico. *American College of Sports Medicine 62<sup>nd</sup> Annual Meeting*. San Diego, CA. May 26-30, 2015.
18. González-Rodríguez, Alexis; Santiago-Rodríguez, Maria Enid; **Amalbert-Birriel, Marcos A.**; Martínez, Lucía del R.; Ramírez-Marrero, Farah A.: Association between Sedentary Time, Physical Activity, and Physical Fitness among Hispanic Children in Puerto Rico. *American College of Sports Medicine 62<sup>nd</sup> Annual Meeting*. San Diego, CA. May 26-30, 2015.

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### Conference Proceedings

19. Gould, Z., Moore, C., Ducharme, S., Aguiar, E., McCullough, A., **Amalbert-Birriel, M.**, Sands, C., Tudor-Locke, C. "Accuracy and Bias of Consumer and Research Grade Wrist-Worn Accelerometers". *University of Massachusetts Amherst School of Public Health and Health Sciences Research Day*. April 2nd, 2019. Poster Presentation
20. Sands, C., Ducharme, S., Aguiar, E., Moore, C., McCullough, A., Gould, Z., **Amalbert-Birriel, M.**, Tudor-Locke, C. "Cadence as a Predictor of the Walk-to-Run Transition". *University of Massachusetts Amherst School of Public Health and Health Sciences Research Day*. April 2nd, 2019. Poster Presentation
21. Gould, Z., McCullough, A., Ducharme, S., Moore, C., Aguiar, E., **Amalbert-Birriel, M.**, Sands, C., Tudor-Locke, C. Accuracy of Step Detection in Older Adults Using a Low Frequency Extension Filter. *UManage Center 2019 Conference: Managing, Measuring, and Monitoring – Critical Issues in Activity, Sleep, and Fatigue*. Amherst, MA. March 28<sup>th</sup>, 2019. Poster Presentation
22. Sands, C., Ducharme, S., Aguiar, E., Moore, C., McCullough, A., Gould, Z., **Amalbert-Birriel, M.**, Tudor-Locke, C. Walk to Run Transition Cadence Thresholds for Wearable Devices. *UManage Center 2019 Conference: Managing, Measuring, and Monitoring – Critical Issues in Activity, Sleep, and Fatigue*. Amherst, MA. March 28<sup>th</sup>, 2019. Poster Presentation.
23. **Amalbert-Birriel M.A.**, McCullough A.K., Moore C.C., Aguiar E.J., Ducharme S.W., Gould Z.R., Sands C.J., Tudor-Locke C. Estimating Energy Expenditure from Device-Determined Cadences. *New England American College of Sports Medicine Fall Conference*, Providence, RI, Nov 8-9, 2018.
24. Santiago-Rodriguez, Maria Enid; **Amalbert-Birriel, Marcos A.**; Ramírez-Marrero, Farah A.: Differences by Physical Education Class and Recess Time among Children in Puerto Rico. *46th Annual Meeting Southeast Chapter of the American College of Sports Medicine*. Chattanooga, TN. February 15-17, 2018.
25. Santiago-Rodriguez, Maria Enid; **Amalbert-Birriel, Marcos A.**; Ramírez-Marrero, Farah A.: Relationship Between School Physical Environment and Sedentary Time Among Children in Puerto Rico. *44th Annual Meeting Midwest Chapter of the American College of Sports Medicine*. Fort Wayne, IN. November 4-5, 2016.
26. **Amalbert-Birriel, Marcos A.**; Santiago-Rodríguez, María E.; González-Rodríguez, Alexis; Martínez, Lucia del R.; Rivera, Mercedes; Ramírez-Marrero, Farah A.: Fitnessgram Healthy Fitness Zone, Sedentary Time and Self-Esteem Among Hispanic Children in Puerto Rico. *American College of Sports Medicine Southeast Chapter Annual Meeting*. Greenville, SC. February 18-20, 2016

### COLLEGE/UNIVERSITY TEACHING

Teaching Assistant (Research Methodology-Wearable Technology Physical Activity)  
2019                      **University of Massachusetts, Amherst**

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Prepare the laboratory for the undergraduate course. Prepare and organize the undergraduate data collection for their honor thesis. Help setup devices and laboratory for the undergraduate data collection.

Teaching Assistant (Research Methodology-Wearable Technology Physical Activity)  
2018 **University of Massachusetts, Amherst**

Prepare the laboratory for the undergraduate course. Give the instructions and demonstrations of the instruments, their use data in collection. Assist the professor on the evaluation and workshops of the students.

Teaching Assistant (Exercise Physiology)  
2016 **University of Puerto Rico, Rio Piedras Campus**

Prepare the laboratory for the graduate and undergraduate course. Give the instructions and demonstrations of the instruments, their use data is collection. Assist the professor on the evaluation and workshops of the students.

Teaching Assistant (Ecology)  
2010 **University of Puerto Rico, Rio Piedras Campus**

Prepare and supervise test. Give instructions and demonstrations to the students.

Prepare the laboratory and the field trip experience.

Organize the classroom, update the grades and tutor the students.

Teaching Assistant (Biology)  
2009 **University of Puerto Rico, Rio Piedras Campus**

Assist and supervise the course and tests. Evaluate the students.

Prepare the laboratory and class material.

Organize the classroom and tutor the students.

### Professional Experience

Long Jump and Triple Jump Coach  
2018 **University of Puerto Rico Rio, Piedras Campus**

Develop, manage, periodize and supervise training programs for the student-athletes.

Perform test to measure athlete potential, capacities and fitness levels.

Calendarize competitions.

Serve as mentor and guidance for the freshmen and help them adapt to the training system.

Sprints, Hurdles, Throws and Jumps Coach  
2018 **School of Sports of San Juan**

Develop, manage, periodize and supervise training programs for the student-athletes.

Perform test to measure athlete potential, capacities and fitness levels.

Serve as mentor and guidance for the students-athletes and help them adapt to the training system.

Sprints, Hurdles and Jumps Coach  
2017 **Caribbean University**

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Develop, manage, periodize and supervise training programs for the student-athletes.  
Perform test to measure athlete potential and capacities.  
Serve as mentor and guidance for the freshmen and help them adapt to the training system.

### Clinical Exercise Physiology Internship

2016

#### **Veterans Affairs Caribbean Healthcare System**

Completed clinical exposure related to exercise physiology  
Discuss clinical assessment based on rotation population (cardiac, pulmonary and musculoskeletal).  
Participated and administrated exercise tests  
Performed and assisted in clinical assessments on rehabilitation  
Created and supervised the exercise training programs of the patients.

### Long Jump Coach Assistant, (Volunteer)

2016

#### **University of Puerto Rico, Rio Piedras Campus**

Supervise and train freshmen.  
Served as mentor and guidance for the freshmen and help them adapt to the training system.  
Record and help analyze training and competitions.

## Volunteering

- 2019 9th Annual Life Sciences Graduate Research Symposium (Volunteer Committee Member)  
2019 American College of Sports Medicine New England Chapter Fall Meeting (Registration booth volunteer)  
2019 Round-Table Discussion Incoming Spaulding-Smith Fellows (Invited Speaker)

## Mentorship

- 2019- Skylar Holmes, *University of Massachusetts, Amherst*, Graduate Student  
2016-2017 Diego Orro, *University of Puerto Rico, Rio Piedras Campus*, Undergraduate Student  
2015-2017 Amarilys Romero, *University of Puerto Rico, Rio Piedras Campus*, Undergraduate Student  
2015-2017 Annette Medina, *University of Puerto Rico, Rio Piedras Campus*, Undergraduate Student

## Professional Affiliations

- 2018- American College of Sports Medicine New England Chapter  
2018- International Society for Physical Activity and Health  
2017-2018 American College of Sports Medicine Midwest Chapter  
2016- Association of Exercise Physiology of Puerto Rico  
2015-2016 American College of Sports Medicine Southeast Chapter  
2014- Sedentary Behavior Research Network  
2013- American College of Sports Medicine

## Professional Development

**Marcos A. Amalbert-Birriel, MS – November 2019**

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- 2019 Meet the Experts Lunch. NEACSM Regional Chapter Meeting, Providence Convention Center, Providence, RI USA
- 2019 Funding Search & Application Strategies for Grad Students of Color. Office for Professional Development, University of Massachusetts Amherst, USA
- 2019 Anatomy of a Successful NSF Proposal. Office for Professional Development, University of Massachusetts Amherst, USA
- 2019 Making Great Figures. Office for Professional Development, University of Massachusetts Amherst, USA
- 2019 Diversity Statements for the Academic Job Market. Office for Professional Development, University of Massachusetts Amherst, USA
- 2019 A Leader's Toolkit: Developing an Effective Negotiation Strategy. Office for Professional Development, University of Massachusetts Amherst, USA
- 2019 The Research Statement (and the Academic Cover Letter). Office for Professional Development, University of Massachusetts Amherst, USA
- 2019 Convincing Funders That Your Work Matters. Office for Professional Development, University of Massachusetts Amherst, USA
- 2019 Developing Validated Digital Clinical Endpoints with Wearable Sensors
- 2019 Industry Presented Webinar - Wheat, Microbiome and Health: The Science Behind Gut Health and Food Intolerances
- 2019 Meet the Experts Lunch. ACSM Annual Meeting, Orange County Convention Center, Orlando, FL, USA
- 2019 It Doesn't Have to be Perfect, It Just Has to be Done. Office for Professional Development, University of Massachusetts Amherst, USA
- 2019 From Student to Scholar. Office for Professional Development, University of Massachusetts Amherst, USA
- 2019 Understanding and Combating Impostor Syndrome. Office for Professional Development, University of Massachusetts Amherst, USA
- 2019 Mindfulness: A Strategy to Reduce Stress and Increase Productivity. Office for Professional Development, University of Massachusetts Amherst, USA
- 2019 Career Conversations: Understanding the Intersection of Science and Policy. Office for Professional Development, University of Massachusetts Amherst, USA
- 2019 Leveraging Positive Psychology for Personal and Professional Growth. Office for Professional Development, University of Massachusetts Amherst, USA
- 2019 Get Organized with Bullet Journaling. Office for Professional Development, University of Massachusetts Amherst, USA
- 2018 CV Clinic. Office for Professional Development, University of Massachusetts Amherst, USA
- 2018 Datacamp online courses for R – Data Scientist Career Track
- 2018 A Leader's Toolkit: Navigating difficult conversations. Office for Professional Development, University of Massachusetts Amherst, USA
- 2018 A Leader's Toolkit: Emotional Intelligence (EI). Office for Professional Development, University of Massachusetts Amherst, USA
- 2018 Managing difficult conversations in mentoring and research. Office for Professional Development and Center for the Integration of Research, Teaching, and Learning, University of Massachusetts Amherst, USA
- 2018 Time Management workshop
- 2018 The Art of Introducing Yourself, Office for Professional Development, University of Massachusetts Amherst, USA



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| 2018 | Finding Mentors, Sponsors and Advisors, Office for Professional Development, University of Massachusetts Amherst, USA                   |
| 2018 | KGSO Fall Professional Development Workshop   |
| 2018 | Speakeasy Toastmasters Club Workshop  |
| 2018 | Leading Effective Discussions   |
| 2018 | The First Day of Class  |
| 2018 | Effective Teaching: Advice from Top Education, SBS, Isenberg, and Public Health TAs   |
| 2018 | People of Color in Academia: Opportunities, Challenges, Resources, Community  |
| 2018 | First Generation Graduate Students: Opportunities, Challenges, Resources, Community   |
| 2018 | Succeeding in Graduate School: Advice from Top Students in the Social and Behavioral Sciences, Education, Management, and Public Health |
| 2018 | Title IX Rights and Responsibilities for Graduate Students  |
| 2018 | Ethics in the Laboratory  |
| 2018 | Diversity in STEM Fields  |
| 2018 | Meet the Experts Lunch. ACSM Annual Meeting, Minneapolis Convention Center, Minneapolis, MN, USA  |

### **Institutional Trainings**

#### **University of Massachusetts Amherst, USA**

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| 2018 | Introduction to Anti-Bullying   |
| 2018 | Group 3 Good clinical practice. Collaborative Institutional training (CITI) |
| 2018 | Biomedical responsible conduct of research. CITI                            |
| 2018 | Group 1 Biomedical research investigators and key personnel. CITI           |
| 2018 | Hazardous waste management and right to know training                       |
| 2018 | First aid training – including CPR and AED                                  |
| 2018 | Laboratory safety training  |
| 2018 | Fire safety training  |
| 2018 | Harassment prevention training  |
| 2018 | Sexual harassment training  |

### **Languages**

|         |                       |
|---------|-----------------------|
| Spanish | Native                |
| English | Bilingual proficiency |