# JEHU NARH APAFLO

MLS. MS

Metabolic, Nutrition, and Exercise Research (MiNER) Lab
College of Health Sciences
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#### **EDUCATION**

The University of Texas at El Paso (UTEP)	1/2021 – Present
<ul> <li>Program: PhD in Interdisciplinary Health Sciences</li> </ul>	
<ul> <li>Concentration: Exercise Physiology and Metabolic Health</li> </ul>	
Jiangsu University of Science and Technology (JUST)	9/2018 - 6/2020
<ul> <li>Degree: MS Biology</li> </ul>	
<ul> <li>Concentration: Biochemistry, Cell, and Molecular Biology</li> </ul>	
University of Ghana (UG)	9/2011 – 7/2015

- Degree: BSc Medical Laboratory Science
- Concentration: Hematology, Microbiology, Clinical Chemistry, Cytotechnology, & Histotechnology

#### PRESENTATION & RESEARCH EXPERIENCE

- 1. Labadah J., Apaflo J., Narvaez G., Rocha V., Mossayebi Ali., Bajpeyi S. *Neutrophil Count Predicts Cardiovascular and Metabolic Health Risk Factors in a Population without Diabetes*. American Diabetes Association, 83rd Scientific Session- San Diego, CA, June 23-26. (Accepted)
- **2. Apaflo J.**, Labadah J., Narvaez G., Rocha V., Mossayebi A., Bajpeyi S. *Higher Hydration Status is Indicative of Better Glucose Tolerance*. American Diabetes Association, 83rd Scientific Session- San Diego, CA, June 23-26. (Accepted)
- **3.** Labadah J., **Apaflo J**., Narvaez G., Rocha V., Bajpeyi S. *Glucose intolerance is associated with resting heart rate among individuals without diabetes*. American Physiology Summit 2023- Long Beach, California. April 20-23, 2023. American Journal of Physiology. (Accepted)
- **4.** Bajpeyi S., **Apaflo J**., Narvaez G., Labadah J., Mossayebi A., Rocha V., Thyfault J., McAinch A. *Effects of Neuromuscular Electrical Stimulation on Fasting Blood Glucose*. American Physiology Summit 2023- Long Beach, California. April 20-23, 2023. American Journal of Physiology
- **5.** Labadah J., **Apaflo J**., Narvaez G., Bajpeyi S. *Comparison of Percent Body Fat Measurement by other Methods to Dual X-ray Absorptiometry*. American College of Sports Medicine Annual Meeting & World Congresses Denver, Colorado. May 30 June 2, 2023; International Journal Exercise Science. (Accepted)
- **6.** Bajpeyi S., **Apaflo J**., Narvaez G., Labadah J., Mossayebi A., Rocha V., Jung H., Wagler A., Thyfault J., McAinch J. *Effect of Neuromuscular Electrical Stimulation on Blood Glucose and Metabolic Rate A Pilot Study*. American College of Sports Medicine Annual Meeting & World Congresses Denver, Colorado. May 30 June 2, 2023; International Journal Exercise Science. (Accepted)
- 7. Jehu N Apaflo, Gabriel Narvaez, Joshua Labadah, Victoria Rocha, and Sudip Bajpeyi. Maintaining Blood Glucose Homeostasis Using Neuromuscular Electrical Stimulation

- (*NMES*). Rio Grande Chapter of American Physiological Society Las Cruces, NM. March 31 April 1, 2023; Conference Proceedings. (2<sup>nd</sup> Place Trainee Poster Presentation)
- **8.** Labadah J., **Apaflo J**., Narvaez G., Rocha V., Bajpeyi S. *Adiposity and high-density lipoprotein are reflective of blood pressure among individuals without hypertension*. Texas Chapter of American College of Sports Medicine Waco, TX. February 23-24, 2023; International Journal of Exercise Science International Journal of Exercise Science.
- 9. Mossayebi A., Apaflo J., Narvaez G., Labadah J., Rocha V., Jung H., Min K., Mcainch A., Bajpeyi S. *Effect of Neuromuscular Electrical Stimulation on Fasting Blood Glucose in Sedentary Overweight and Obese Population.* Texas Chapter of American College of Sports Medicine Waco, TX. February 23-24, 2023; International Journal of Exercise Science International Journal of Exercise Science. (*Finalist for Doctoral Category*)
- 10. Rocha V., Apaflo J., Narvaez G., Mossayebi A., Labadah J., Bajpeyi S. Effects of Neuromuscular Electrical stimulation on Energy Expenditure and Oxygen Consumption. Texas Chapter of American College of Sports Medicine Waco, TX. February 23-24, 2023; International Journal of Exercise Science International Journal of Exercise Science. (Finalist for Undergraduate Category)
- **11. Apaflo J.**, Narvaez G., Labadah J., Rocha V., Bajpeyi S. *Stand More, Sit Less, for Better Metabolic Health*. Texas Chapter of American College of Sports Medicine Waco, TX. February 23-24, 2023; International Journal of Exercise Science International Journal of Exercise Science.
- **12. Apaflo J.**, Labadah J., Narvaez G., Mossayebi A., Rocha V., Bajpeyi S. *Substituting Siting Time with Standing is Indicative of Better Cardio-metabolic Health*. American College of Sports Medicine Annual Meeting & World Congresses Denver, Colorado. May 30 June 2, 2023; International Journal Exercise Science. (Accepted)
- **13.** Labadah J, **Apaflo JN**, Narvaez G, Rocha V, Mossayebi A, Villegas AP, Bajpeyi S. *Glucose Intolerance Predicts Cardiorespiratory Fitness in a Healthy Population*. Journal of Clinical Exercise Physiology. 2023 Jan;12(s1):6-6
- **14.** Gonzalez MA, Olivas IM, Bencomo-Alvarez AE, Rubio AJ, Barreto-Vargas C, Lopez JL, Dang SK, Solecki JP, McCall E, Astudillo G, Velazquez VV, Schenkel K, Reffell K, Perkins M, Nguyen N, **Apaflo JN**, Alvidrez E, Young JE, Lara JJ, Yan D, Senina A, Ahmann J, Varley KE, Mason CC, Eide CA, Druker BJ, Nurunnabi M, Padilla O, Bajpeyi S, Eiring AM. *Loss of G0/G1 switch gene 2 (G0S2) promotes disease progression and drug resistance in chronic myeloid leukaemia (CML) by disrupting glycerophospholipid metabolism*. Clinical and Translational Medicine. 2022 Dec;12(12): e1146
- **15.** Gonzalez MA, Lopez JL, Velazquez VV, Perkins M, Olivas IM, Bencomo AE, Rubio AJ, **Apaflo JN**, Bajpeyi S, Eiring AM. Regulation of Oxidative Energy Metabolism by G0S2 in FLT3+ AML. Blood. 2022 Nov 15;140(Supplement 1):2984-5.
- **16.** Narvaez G., **Apaflo J.,** Labadah J., Rocha V., Pedroza Villegas A., Mossayebi A., Bajpeyi S. *The Effect of Moderate to Vigorous Physical Activity on Cardiovascular and Metabolic Health.* The University of Texas at El Paso GradEXPO, El Paso TX. November 9, 2022
- **17. Apaflo J.,** Labadah J., Narvaez G., Rocha V., Pedroza Villegas A., Mossayebi A., Bajpeyi S. *Hydration May Help Improve Insulin Sensitivity*. The University of Texas at El Paso GradEXPO, El Paso TX. November 9, 2022 (*Top 5 Research Poster*)
- **18.** Labadah J., **Apaflo J.,** Narvaez G., Rocha V., Pedroza Villegas A., Mossayebi A., Bajpeyi S. *Neutrophil Count Is Indicative of Cardiovascular and Metabolic Health Among Healthy Nondiabetic Individuals*. The University of Texas at El Paso GradEXPO, El Paso TX. November 9, 2022 (*Top 5 Research Poster*)
- **19.** Bajpeyi, S., **Apaflo, J.N.,** Duran, B,Y., Labadah, J., Mossayebi, A., Narvaez, G., Rocha, V., Murillo, S.J., Jimenez, M.A., Carbajal, A. *Time Spent in Moderate to Vigorous Physical Activity is Positively Associated with Glycemic Control*. ACSM's Integrative Physiology of Exercise Conference, Baltimore, MD. September 21-24, 2022

- **20.** Rocha V., Mossayebi A., **Apaflo J.**, Narvaez G., Labadah J., Bajpeyi S. *Effect of Neuromuscular Electrical Stimulation on Energy Expenditure and Substrate Utilization in Overweight and Obese Population*. Campus Office of Undergraduate Research Initiatives Summer Symposium, El Paso, TX. August 6, 2022
- **21.** Rocha, V., **Apaflo, J.N.**, Mossayebi, A., Bajpeyi, S. *Effect of neuromuscular electrical stimulation on energy expenditure and substrate utilization in overweight and obese population*. Annual Campus Office of Undergraduate Research Initiatives (COURI) Symposium, El Paso, TX. April 30, 2022
- **22.** Gonzalez, M.A., **Apaflo, J.N.**, Velazquez, V.V., Perkins, M., Bajpeyi, S., Eiring, A.M. *A role for GOS2 in regulating oxygen and lipid metabolism of myeloid leukemias driven by constitutively active fusion kinases*. 14<sup>th</sup> Annual Research Symposium, Texas Tech University Health Sciences Center, El Paso, TX. April 20-21, 2022
- **23. Apaflo, J.N.**, Labadah, J., Mossayebi, A., Rocha, V., Bajpeyi, S. *Biphasic Glucose Curve Morphology Reflects Better Glucose Tolerance and Substrate Utilization*. Texas Chapter of American College of Sports Medicine Waco, TX. February 24 25, 2022; International Journal of Exercise Science: Conference Proceedings: 2(14), 73 (*Finalist for Doctoral Category*)
- **24.** Labadah, J., Mossayebi, A., **Apaflo, J.N.**, Rocha, V., Bajpeyi, S. *Does Having a Glucose Peak Time within 30 Minutes of Glucose Ingestion Indicate Better Metabolic Flexibility?* Texas Chapter of American College of Sports Medicine Waco, TX. February 24 25, 2022; International Journal of Exercise Science: Conference Proceedings: 2(14), 76
- **25.** Mossayebi, A., **Apaflo, J.N**., Labadah, J., Rocha, V., Bajpeyi, S. *Gender Difference in the Relationship of Fatigue Index, Anaerobic Power and Capacity to Body Composition and Bone Mineral Status in Non-Athletes*. Texas Chapter of American College of Sports Medicine Waco, TX. February 24 25, 2022; International Journal of Exercise Science: Conference Proceedings: 2(14), 75
- **26. Jehu N Apaflo**, Victoria Rosas, Keisha Sepulveda-Rivera, Armando Varela-Ramirez, Jeffrey D Covington, Jose E Galgani, Eric Ravussin, Sudip Bajpeyi. *Effect of an Acute Exercise Bout on Skeletal Muscle Lipid Droplet Morphology and GLUT 4 Protein*. Obesity Week Annual Meeting, Virtual. November 1-5, 2021
- **27. Jehu N Apaflo,** Vivian Andoh. *Intrinsically reinforced silks are obtained by the incorporation of graphene quantum dots into silkworms*. The 1st Sino-Foreign Postgraduates Academic Forum Presentation of JUST, Zhenjiang, Jiangsu. December 2019
- - **Topic:** The Evaluation of the Biological Effects of Graphene Nanoparticles using Silkworm Model
  - **Supervisors:** Dr Guohua Wu (Professor) and Dr Lin Ma (Assoc. Professor)
- - **Topic:** Prevalence of Antibiotic Resistance in *Escherichia coli* Isolates in Chickens in Accra
  - Supervisors: Dr Akua O. Forson and Dr Patrick F. Ayeh-Kumi (Professor)

#### MANUSCRIPT REVIEW EXPERIENCE

#### **Assisted with manuscript review**

- Journal of Cachexia, Sarcopenia, and Muscle
- Journal of Comprehensive Physiology

#### **GRANT WRITING**

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• Title: Mechanism of Physical Activity in Mitigating High-Fat-Diet Induced Insulin

Resistance

Status: ApprovedAmount: \$1750

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• Title: Improving Glycemic Control Using Neuromuscular Electrical Stimulation

Status: ApprovedAmount: \$3000

#### PROFESSIONAL EXPERIENCE

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## Research Responsibilities:

 Lab Maintenance, Protocol Development, Procurement, Grant Writing Assistance, Recruitment of Lab Members, & Supervision/Mentoring of Undergraduate/Graduate Student Lab Workers.

#### Teaching Responsibilities:

- o Freshman Year Research Intensive Sequence (FYRIS) courses:
  - a) Exercise and Metabolism II, Spring 2022 & 2023
  - b) Exercise and Metabolism I, Fall 2021 & 2022
- o Exercise Physiology Laboratory course, Spring 2021

## **Medical Laboratory Scientist**

•	Alma Medical Laboratory	11/2020 - 1/2021
•	Metropolis Healthcare Ghana Ltd	8/2017 - 9/2018
•	Medi-Kah Diagnostic Services	2/2017 - 8/2017
•	Greater Accra Regional Hospital (Intern)	9/2015 - 9/2016
•	Mamprobi Polyclinic (Intern)	8/2014 - 10/2014
•	Korle-Bu Teaching Hospital (Intern)	9/2013 – 10/2013
•	Achimota Hospital (Intern)	7/2012 - 8/2012

#### Responsibilities:

- Performed various types of clinical analyses in microbiology (bacteriology, parasitology, and mycology), hematology, coagulation, blood bank, chemistry, serology, and urinalysis to aid physicians in the diagnosis, treatment, and management of diseases.
- Maintained accurate patient records by documenting and reporting test results in electronic laboratory information system.
- o Ensuring test result validity before reporting results to physicians
- o Calibration and maintenance of laboratory equipment to ensure proper functionality.
- o Following established protocols for specimen handling, processing, and outsourcing.
- Laboratory sample collection (venesection, dermal puncture, and oropharyngeal swab)
- o Preparing laboratory culture media, chemicals, solutions, and reagents
- Training, tutoring, and supervising lab trainees and new employees
- Preparing standard operating procedures for new laboratory tests, taking inventory, and restocking laboratory consumables

## **SKILLS/CERTIFICATION**

**Laboratory Skills:** DXA Scan (Body Composition & Bone Densitometry), Continuous Glucose Monitoring, Indirect Calorimetry (resting & exercise), Skeletal Muscle Cell Culture, SDS-Page Electrophoresis, Hematology, Phlebotomy, Chemical Pathology/Medical Biochemistry, Medical Microbiology, Immunology, Cell Biology, Molecular Diagnostics, Histotechnology, Cytotechnology.

## **Clinical Laboratory Certificates/Licensure:**

- enCORE Operator Training (DXA) Alpha Source Group
- Allied Health Professions Council, Ghana (MLS Certificate of Practice: 09021418)
- BD Good Phlebotomy Practice Training Beckington Dickinson

# **Laboratory Safety Certificates of Training:**

- Basic X-Ray Radiation Safety Course for Bone Densitometry
- Laboratory Safety UTEP BioRAFT (online)
- Biosafety and Bloodborne Pathogens UTEP BioRAFT (online)
- Radiation Safety UTEP BioRAFT (online)

# **Teaching Certification:**

■ Teaching Hybrid Academy – UTEP, 2021 (online)

# **Continuous Professional Development Certificates:**

- ABO Typing Discrepancies MediaLab, Inc. (online)
- Identification of Victims of Trafficking and Prevention of Human Trafficking: The Role of the Healthcare Professional - Continuous Education Services (CES) (online)

**Computer Skills:** MS Word, Excel, Publisher, PowerPoint, Endnote, Origin, GraphPad, SPSS, and Fiji

## **Academic English Course Certificate (Coursera):**

Grammar and Punctuation - University of California, Irvine (online)

**Team Skills:** Leadership, team player, good presentation, and effective communication

#### **AWARDS & HONORS**

Trainee Poster Award (2 <sup>nd</sup> place) – Rio Grande Physiological Society	4/2023	
Student Manuscript Award (1st place) – Texas ACSM	2/2023	
Top 5 Research Poster Award – UTEP GradExpo	11/2022	
Poster Finalist Award – Texas ACSM	2/2022	
Honorary Award of Academic Excellence - National Union of Ghanaian Students, China,		
Zhenjiang Chapter	1/2020	
Star Worker of the Month – Lab Department, Greater Accra Regional Hospit	al8/2016	
Educational Pathways International Scholarship – UG	2011 – 2015	

## **ACTIVITIES/ORGANIZATIONS**

#### Service

TACSM Undergraduate Student Bowl Coach, UTEP Team, Waco, TX 2023

# **UTEP Campus Volunteer Activities**

- Minerpaloozer information booth, September 2022
- Get Involved & Wellbeing Fair MiNER Lab/Kinesiology department tabling, August 2022, January 2023
- Orange and Blue Day Kinesiology department tour and exhibition, October 2021,

#### October 2022

#### **Community Health Service Volunteer**

- Ysletta Independent School employee health fair, El Paso, July 2022, October 2022
- Tobbin Foundation community health screening, Accra, July 2017
- Aulis Health Foundation outreach to Osudoku Orphanage, 2016
- YES Alumni outreach to juvenile inmates in Accra, August 2015
- University of Ghana Medical Laboratory Science Students Association community medical outreach, Kasoa Market, May 2012

# **Organizational Membership**

- Rio Grande Physiological Society Student Member, 2023-Date
- American College of Sports Medicine (ACSM) Student Member, 2021-Date
- Texas ACSM Student Member, 2021-Date
- China National Union of Ghanaian Students Audit Committee Member, Zhenjiang Chapter, 2019/2020

# Participant of World Car Free Day 2019 - Zhenjiang, Jiangsu Province

• Community cycling demonstration to create awareness about gasoline air pollution and the benefits of clean transport.

# **Long-Distance Race**

- 2021 ACSM/Gisolfi Virtual 5K 35:10
- 2019 Zhenjiang Shiyezhou Quarter Marathon 01:09:26