

Joshua Labadah  
PhD Interdisciplinary Health Sciences  
The University of Texas at El Paso  
El Paso, TX 79968  
[joshlabadah@gmail.com](mailto:joshlabadah@gmail.com)  
[jlabadah@miners.utep.edu](mailto:jlabadah@miners.utep.edu)

## EDUCATION

- 2021-Date Interdisciplinary Health Sciences PhD Program, University of Texas at El Paso.
- 2017-2019 MPhil Molecular Cell Biology of Infectious Disease. University of Ghana, Ghana.
- 2016-2017 M.A. Health Education. University of Cape Coast, Ghana
- 2008-2013 BSc Biochemistry Kwame Nkrumah University of Science and Technology, Department of Biochemistry and Food Technology Kumasi, Ghana.

## RESEARCH EXPERIENCE

- 2021-Date Health Assessment Project (Mentor: Dr. Sudip Bajpeyi)
- 2022-Date Neuromuscular electrical stimulation: A novel treatment for improving metabolism  
Mentor: Dr. Sudip Bajpeyi)
- 2022-Date Does a Family History of Type 2 Diabetes Affect Exercise Induced Improvement in Insulin Sensitivity? (Mentor: Dr. Sudip Bajpeyi)
- 2018-2020 Microfilarial Clearance from the Eye and Ocular Changes Associated with Ivermectin Treatment in Individuals with Onchocerciasis; Clinical trial; (<https://clinicaltrials.gov/ct2/show/NCT03517462>) (Mentor: Dr. Nicholas Opoku)
- 2014-2019 Comparison of Ivermectin alone with Ivermectin plus Albendazole in their Efficacy against Onchocerciasis in the Volta Region, Ghana; Clinical trial; Head of Laboratory Team (<https://clinicaltrials.gov/ct2/show/NCT02078024>) (Mentor: Dr. Nicholas Opoku)
- 2013-2017 Malaria vaccine Research Capacity Building in Ghana ([https://mavareca.cmp.ku.dk/partners/field-research-teams/field\\_team\\_2015/](https://mavareca.cmp.ku.dk/partners/field-research-teams/field_team_2015/)) (PI: Prof. Lars Hviid)
- 2015-2016 Plasmodium Erythrocyte Invasion Mechanism (PI: Prof. Gordon Awandare)
- 2015-2016 Diabetes Audit among Adults visiting Hohoe Municipal Hospital (Prof. Margarette Kweku)
- 2013-2015 Ghana Rotavirus vaccine efficacy surveillance study (PI: Prof. George Armah)
- 2013-2015 Hospital-based malaria prevalence studies; molecular epidemiology and P. falciparum gametocyte carriage (PI: Dr Bismarck Dinko)
- 2013-2014 Community-based malaria prevalence study (PI: Prof. Michael Ofori)

## PROFESSIONAL EXPERIENCE

- 2013-2017      Laboratory Technologist; University of Health and Allied Sciences; Onchocerciasis Chemotherapy Research Centre, Hohoe Municipal, Ghana.
- 2013-2015      Laboratory Technologist; Hohoe Municipal Hospital General

## TEACHING EXPERIENCE

- JAN 2021-present      Research Methods; Teaching Assistance; The University of Texas at El Paso
- MAR-AUG 2007      Dora Memorial School Complex, Ho; English Teacher, Class Adviser
- SEP 2006-  
MAR 2007      Holy Spirit Catholic Preparatory School, Ho; General Science Teacher, Staff Welfare Committee Chairman

## GRANTS/AWARD/FELLOWSHIPS

Dodson Research Grant (\$3000), Fall 2021, The University of Texas at El Paso.

Certificate of Excellence in Reviewing; Asian Journal of Biology, Certificate number SD/HQ/PR/Cert/64513/JOS; January 2021

Most Sociable Student, Department of Biochemistry, Cell and Molecular Biology, 2017-2018.

West African Centre for Cell Biology of Infectious Pathogens, Fellowship (\$9000), 2017-2019.

## PROFESSIONAL AFFILIATIONS

Member, American Physiological Society (APS), November 2022-present

Member, American Diabetes Association (ADA), September 2021-present

Member, American College of Sports Medicine, November 2021-present

Member, American College of Sports Medicine, Texas Chapter, November 2021-present

Member, Convention for Biomedical Research Ghana (CoBReG), July 2019-present (<https://cobreg.org/>)

Member, Immunology Society Ghana, August 2020-present

VALIDATE network vaccine development for complex intracellular neglected pathogens, Member, July 2019-present (<https://www.validate-network.org/>)

## PROFESSIONAL CERTIFICATIONS

- Basic Life Support Provider (BLS), American Heart Association. Issued Oct 2022 · Expires Mar 2024. Credential ID: 225419975945.

## ABSTRACTS AND CONFERENCES

Apaflo J., John Tomy I., Narvaez G., Labadah J., Villalobos U., Fatahimeiabadi Z., Bajpeyi S. Neuromuscular Electrical Stimulation Increases Energy Expenditure and Improved Glycemic Control. *The University of Texas at El Paso GradEXPO, El Paso TX. April 26, 2024.*

Jehu N. Apaflo, Irene John Tomy, Gabriel Narvaez, Joshua Labadah, Ulices Villalobos, and Sudip Bajpeyi. Electrical Muscle Stimulation Decreases Blood Glucose and Improves Glycemic Control. *Rio Grande Physiological Society Annual Meeting – Albuquerque, NM. March 29-30, 2024; Conference Proceedings.*

Ulices Villalobos, Jehu N. Apaflo, Gabriel Narvaez, Joshua Labadah, Irene John Tomy, and Sudip Bajpeyi. Role of Neuromuscular Electrical Stimulation Intensity on Stimulation Induced Changes in Energy Expenditure and Respiratory Quotient. *Rio Grande Physiological Society Annual Meeting, Albuquerque, NM. March 29-30, 2024.*

Irene John Tomy, Jehu N. Apaflo, Gabriel Narvaez, Joshua Labadah, Ulices Villalobos, Zahra Fatahimeiabadi, and Sudip Bajpeyi. Neuromuscular Electrical Stimulation: An Innovative Approach to Glucose Management. *Rio Grande Physiological Society Annual Meeting – Albuquerque, NM. March 29-30, 2024; Conference Proceedings.*

Joshua Labadah, Jehu N. Apaflo, Gabriel Narvaez, Ulices Villalobos, Irene John Tomy, Zahra Fatahimeiabadi and Sudip Bajpeyi. Glycemic control, anthropometric and blood parameters that are indicative of cardiovascular health in a healthy Hispanic population without diabetes or hypertension. *Rio Grande Physiological Society Annual Meeting, Albuquerque, NM. March 29 to 30. March 29-30, 2024; Conference Proceedings.*

Gabriel Narvaez, Jehu Apaflo, Joshua Labadah, Ulices Villalobos, Irene John Tomy, & Sudip Bajpeyi. Increased Standing Time Is Indicative Of Better Cardiometabolic Health And Fitness. *Texas Chapter of American College of Sports Medicine – Waco, TX. February 22-23, 2024; International Journal of Exercise Science International Journal of Exercise Science. Accepted*

Apaflo, Jehu N.; John Tomy, Irene; Narvaez, Gabriel; Labadah, Joshua; Villalobos, Ulices; and Bajpeyi, Sudip (2024) "Thirty Minutes of Electrical Muscle Stimulation Improves Glycemic Control," *International Journal of Exercise Science: Conference Proceedings*: Vol. 2: Iss. 16, Article 49. Available at: <https://digitalcommons.wku.edu/ijesab/vol2/iss16/49> (**Finalist for doctorate category**)

Jehu N. Apaflo, Ka'Delyn Sanders, Joshua Labadah, Gabriel Narvaez, Victoria Rocha, Ulices Villalobos, Irene John Tomy, & Sudip Bajpeyi. Blood Glucose Fluctuation Is Indicative of Adiposity. *American Physiology Summit 2024- Long Beach, California. April 4-7, 2024. American Journal of Physiology. Accepted*

Jehu N. Apaflo, Irene John Tomy, Gabriel Narvaez, Victoria Rocha, Joshua Labadah, Ulices Villalobos, Ali Mossayebi, Hyejin Jung, John Thyfault, Andrew J McAinch, Sudip Bajpeyi. Neuromuscular Electrical Stimulation – A Novel Approach for Glycemic Control Among Hyperglycemic Population. *Cell Symposia: Exercise Metabolism, Lisbon, Portugal May 5–7, 2024. Submitted*

Villalobos, Ulices; Apaflo, Jehu N.; Narvaez, Gabriel; Labadah, Joshua; John Tomy, Irene; and Bajpeyi, Sudip (2024) "Role of Stimulation Intensity on Neuromuscular Electrical Stimulation Induced Changes in Energy Expenditure and Respiratory Quotient," *International Journal of Exercise Science: Conference*

11. John Tomy, Irene; Apaflo, Jehu; Rocha, Victoria; Narvaez, Gabriel; Labadah, Joshua; Villalobos, Ulices; and Bajpeyi, Sudip (2024) "Effects of Neuromuscular Electrical Stimulation on Glycemic Control in a Hyperglycemic Population," *International Journal of Exercise Science: Conference Proceedings*: Vol. 2: Iss. 16, Article 25. **(3<sup>rd</sup> Place Finalist for undergraduate category)**

Joshua Labadah, Gabriel Narvaez, Jehu N. Apaflo, Ulices Vallalobos, Irene John Tomy Sudip Bajpeyi. Markers of Cardiovascular Health among a Healthy Hispanic Population without Diabetes nor Hypertension. *Texas Chapter of American College of Sports Medicine – Waco, TX. February 22-23, 2024; International Journal of Exercise Science International Journal of Exercise Science. Conference Proceedings*

Joshua Labadah, Gabriel Narvaez, Jehu N. Apaflo Sudip Bajpeyi. Surrogate Markers of Impaired Glucose Tolerance among a Mexican-American Population without Diabetes. *American Diabetes Association, 84th Scientific Session- Orlando, Fl, June 23-26, 2024.*

Jehu N. Apaflo, Gabriel Narvaez, Joshua Labadah, Victoria M. Rocha, Kisuk Min, Hyejin Jung, Amy Wagler, Sudip Bajpeyi. Non-Conventional Means of Blood Glucose Regulation. *College of Health Sciences Health Disparities Conference – ¡Viva La Salud!, UTEP, El Paso, TX. September 14-15, 2023.*

Sanders K., Apaflo J., Labadah J., Narvaez G., Rocha V., Bajpeyi S. Greater Glycemic Variability is an Indicator of Obesity. *Campus Office of Undergraduate Research Initiative Summer Symposium, El Paso, TX. August 5, 2023.*

Molina D., Apaflo J., Narvaez G., Labadah J., Rocha V., Golden B., Villalobos U., Lopez C., Molina D., Bajpeyi S. Fat Distribution and Glycemic Control. *Campus Office of Undergraduate Research Initiative Summer Symposium, El Paso, TX. August 5, 2023.*

Villalobos U., Apaflo J., Narvaez G., Labadah J., Rocha V., Golden B., Lopez C., Molina D., Bajpeyi S. Low HDL is an indicator of poor glycemic control. *Campus Office of Undergraduate Research Initiative Summer Symposium, El Paso, TX. August 5, 2023.*

Rocha V., Apaflo J., Narvaez G., Labadah J., Bajpeyi S. Effect of Neuromuscular Electrical Stimulation on Blood Glucose and Energy Expenditure. *Campus Office of Undergraduate Research Initiatives Summer Symposium, El Paso, TX. August 5, 2023.*

Jehu N. Apaflo, Joshua Labadah, Gabriel Narvaez, Victoria M. Rocha, Sudip Bajpeyi. Android to Gynoid Fat Ratio is a Strong Indicator of Insulin Sensitivity and Cardiovascular Health. *Obesity Week Annual Meeting, Dallas, TX. October 14-17, 2023.*

Rocha V., Apaflo J., Narvaez G., Labadah J., Bajpeyi S. Effect of Neuromuscular Electrical Stimulation on Blood Glucose. *Campus Office of Undergraduate Research Initiatives Spring Symposium, El Paso, TX. April 22, 2023.*

Labadah J, Apaflo J. N, Narvaez G, Rocha V, Bajpeyi S. Poorer Glycemic Control is Associated with Higher Resting Heart Rate in a Healthy Population. *Rio Grande Chapter of American Physiological Society – Las Cruces, NM. March 31- April 1, 2023; Conference Proceedings. Poster and oral presentation*

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.*

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.*

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.*

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.*

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.*

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.*

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.*

Labadah J., Apaflo J., Narvaez G., Rocha V., Mossayebi Ali., Pedroza Villegas A., Bajpeyi S. Glucose Intolerance Predicts Cardiorespiratory Fitness in a Healthy Population. *CEPA 2023 Virtual Conference, February 11, 2023; Journal of Clinical Exercise Physiology (2023) 12 (s1): 6.*

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.*

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.*

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.*

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.*

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.*

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.*

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.*

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.*

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.*

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.*

Labadah, J., Mossayebi, A., Apaflo, J., Rocha, V., & Bajpeyi, S. (2022). Does Having a Glucose Peak Time within 30 Minutes of Glucose Ingestion Indicate Better Metabolic Flexibility?. In *International Journal of Exercise Science: Conference Proceedings* (Vol. 2, No. 14, p. 76)-

Apaflo, J. N., Labadah, J., Mossayebi, A., Rocha, V., & Bajpeyi, S. (2022). Biphasic Glucose Curve Morphology Reflects Better Glucose Tolerance and Substrate Utilization. In *International Journal of Exercise Science: Conference Proceedings* (Vol. 2, No. 14, p. 73)-

Mossayebi, A., Apaflo, J. N., Labadah, J., Rocha, V., & Bajpeyi, S. (2022). Gender Difference in the Relationship of Fatigue Index, Anaerobic Power and Capacity to Body Composition and Bone Mineral Status in Non-Athletes. In *International Journal of Exercise Science: Conference Proceedings* (Vol. 2, No. 14, p. 75)

White blood cell differentials, cytokines, total ige and histamine distinction between ivermectin-treated and untreated Onchocerca-infected patients in the Nkwanta north district, Ghana *American Journal of Tropical Medicine and Hygiene* (Vol. 103, pp. 104-105).

Keystone Symposia Conference T4: Helminths: New Insights from Immunity to Global Health Dates: December 8 - December 12, 2019 Location: Southern Sun Cape Sun, Cape Town, Western Cape. Poster Presentation (Number 2007); White blood cell differentials, cytokines, total IgE and histamine

distinction between ivermectin treated and untreated *Onchocerca*-infected individuals in Oti Region, Ghana.

International Research Conference, Noguchi Memorial Institute for Medical Research, 28-29 November 2019. Poster Presentation (number 73); Immunological profiling of untreated and ivermectin treated *Onchocerca*-infected patients in the Oti Region, Ghana.

American Society of Tropical Medicine and Hygiene, 68th Annual Meeting, 20-24 November 2019. Maryland, USA. Poster Presentation (number 1145); Comparison of hematological indices between microfilaremic and ivermectin treated amicrofilaremic onchocerciasis patients in the upper part of the Volta Region of Ghana

WACCBIP RESEARCH CONFERENCE 2019, 24-26 July. 2019, University of Ghana, Accra Ghana. Poster Presentation (number 24); *Onchocerca volvulus* microfilaria impacts hematological indices in infected individuals.

Convention for Biomedical Research Ghana; Conference 30th July-1st August 2019. Kwame Nkrumah University of Science and Technology, Kumasi, Ghana. Poster Presentation; Immunological profiling of untreated and ivermectin treated *Onchocerca*-infected patients in the Oti Region, Ghana

Malaria causes long-term effects on markers of iron status in children: a critical assessment of existing clinical and epidemiological tools, Castberg et al, 2018. Acknowledgment for Laboratory analysis.

## PUBLICATIONS

Labadah, J., Kusi, K. A., & Wilson, M. (2020). Immunological profiling of untreated and ivermectin-treated *Onchocerca*-infected patients in the Oti Region, Ghana-, *International Journal of Infectious Diseases*, 101, 433.

Labadah, E. P., Labadah, J., Awere-Kyere, L., & Wheatley, G. (2022). Effective Cooling of Cassava Starch to Ethanol Bio-Reactors/Fermenters. *International Journal of Chemical and Process Engineering Research*, 9(1), 1-10.

## REFERENCES

Available upon request