Sharifa T. Love-Rutledge, PhD

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Work Address:
301 Sparkman Dr. MSB 229
Huntsville, AL 35899

Education:

The University of Alabama, Tuscaloosa, AL
Doctor of Philosophy-Biochemistry, 2014
Dissertation Chair: Dr. John B. Vincent
Dissertation: Disproving a 55-Year-Old Myth: Cr the Essential Element

The University of Alabama, Tuscaloosa, AL
Master of Science-Chemistry, 2013
Non Thesis

Tougaloo College, Tougaloo, MS
Bachelor of Science-Chemistry, 2008
Magna Cum Laude

Employment History:

Assistant Professor Biochemistry (July 2017-Present)
Department of Chemistry
University of Alabama in Huntsville, Huntsville, AL

Post-Doctoral Research Associate (June 2014-June 2017)
Department of Physiology
Michigan State University, East Lansing, MI

Laboratory Instructor (2013-2014)
The University of Alabama, Tuscaloosa, Alabama

Graduate Teaching Assistant (2008-2013)
The University of Alabama, Tuscaloosa, AL

Graduate Research Assistant (Jan 2009-May 2014)
The Department of Chemistry
The University of Alabama, Tuscaloosa, AL

Professional Memberships:

American Society for Molecular Biology and Biochemistry-Early Career Member
Endocrine Society- Member
NIDDK Network of Minority Health Research Investigators-Member
American Diabetes Association Professional Member-Member
American Chemical Society-Member
The American Association for the Advancement of Science-Member
National Organization for the Professional Advancement of Black Chemist and Chemical Engineers (NOBCChE)-Member

Awards:

Early Career Travel Award to ASBMB annual meeting *Spring 2020*
delegate to the 2019 ASBMB Advocacy Training Program's Cohort 3 *American Society for Molecular Biology and Biochemistry*
UAH Scholarship Enhancement Travel Award *Spring 2019*
Helmsley Charitable Trust Abstract Award in Type 1 Diabetes *Endocrine Society Meeting Spring 2019*
Future Leaders Advancing Research in Endocrinology Class of 2019 *Endocrine Society 2019*
Departmental Nominee for the Undergraduate Research and Creative Mentor Award
Institutional Nominee for the Camille Dreyfus Teacher-Scholar Award
Travel Award to ABRCMS *Fall 2018*
Travel Award to NSF-CH division career workshop *Spring 2017*
UAH New Faculty Research Program Award *Fall 2017*
Advancing Science Award, *National Organization for the Professional Advancement of Black Chemist and Chemical Engineers (NOBCChE), Fall 2016*
Sheldon D Murphy Endowment Fund Travel Award, *Society of Toxicology, Spring 2014*
Advancing Science Award, *National Organization for the Professional Advancement of Black Chemist and Chemical Engineers (NOBCChE), Fall 2013*
NOBCChE Chairman's Travel Award, *Fall 2013*
American Chemical Society Division of Inorganic Chemistry Travel Award, *Spring 2013*

Invited Presentations and panel discussions

- The LEW.1WR1 Rat is sensitive to a moderate sugar diet: Does FAT10 overexpression alter metabolism in insulin sensitive tissues? -University of Wisconsin-Madison July 2019
- Is FAT10 the link between Obesity and Cancer? -Fisk University March 2020(cancelled due to COVID-19)
- Young Adult LEW.1WR1 Rats Develop Glucose Intolerance on a Moderately Increased Sucrose Diet. -University of Memphis October 2020
- ASBMB-Navigating career development and building resilience in times of unrest-panel-PUI faculty careers (https://www.asbmb.org/meetings-events/navigating-career-development#schedule) November 2020

Select Presentations and Abstracts

- Wimalarathne, M. M., Mercado, L.D., Wilkerson Vidal, Q.C., Wolfsberger, J., McConnell, V.J., Vogler, B., Love-Rutledge, S.T. Young Adult LEW.1WR1 Rats, a Model of Liver FAT10 Overexpression, Develop Insulin Resistance and Fatty Liver with Age. Endocrine Society 2021 (Abstr.). Virtual
- Wilkerson Vidal, Q.C, Collins, G.L., Fowler, E., Wimalarathne, M. M., Mercado, L.D., Gibson, H., Martin, S. C., Love-Rutledge, S.T. P14. Dysregulated Metabolic Response Young Adult LEW.1WR1 Rats Develop Dysregulated Islet Function and Impaired Liver Insulin Responses. Endocrine Society 2021 (Abstr.). Virtual
- Love-Rutledge S., Robinson J. Engaging Metabolic Pathways: Infographics to Promote Creativity and Multimodal Learning in Biochemistry. Experimental Biology 2020(Abstr.). San Diego California
- Wimalarathne, M. Wade, A. Love-Rutledge, S. LEW.1WR1 Rats have increased insulin levels and liver lipid lipolytic gene expression during their type 1 diabetes susceptibility window. Experimental Biology 2020(Abstr.). San Diego California
- Vidal, Q.W., Collins, G., Mercado, L., Martin, S., Wright, L.C., Gibson, H., Love-Rutledge, S. Gene Expression in LEW.1WR1 Rats Indicate Insulin Resistance in Muscle and Liver Tissue. Experimental Biology 2020(Abstr.). San Diego California
- Collins, G. Clopp, A. Mercado, L. Gibson, H. Love-Rutledge, S. Young Adult LEW.1WR1 Rats develop Increased Glucose Intolerance on a Moderately Increased Sucrose Diet. Endocrine Society 2019 (Abstr.). New Orleans, LA

- Wade, A. Wimalarathne, M. Cantrell, K. Gibson, H. Love-Rutledge, S. Characterizing the Insulin Staining of LEW.1WR1 and LEW/SsNHsd Rats in Response to Polyinosinic-Cytidylic Acid. Experimental Biology 2019 (Abstr.). Orlando, FL
- Mercado, L.D., Clopp A., Collins G., Love-Rutledge, S. Characterizing Insulin Sensitivity in Adult LEW.1WR1 Rats. Experimental Biology 2019 (Abstr.). Orlando, FL
- Truong, N. Love-Rutledge, S. Lydic, T. Olson, L.K. Effect of interferon gamma on neutral lipid levels, lipid droplet formation, and antiviral responses in pancreatic islets and INS-1 beta cells Experimental Biology 2019 (Abstr.). Orlando, FL
- Wimalarathne, M., Cantrell, K., Love-Rutledge, S. LEW.1WR1 rats have altered inflammation responses during Type 1 Diabetes Induction Southeast Regional Lipid Conference Fall 2018 (Abstr.). Cashier's, NC
- Mercado, L., Collins, G., Clopp, A., Love-Rutledge, S. Characterizing Glucose Tolerance in adult LEW.1WR1 rats. Annual Biomedical Research Conference for Minority Students Fall 2018 (Abstr.). Indianapolis, IN (Outstanding Presentation Winner)
- McConnell, V., Mercado, L., Clopp, A., Gibson, H., Collins, G., Love-Rutledge, S. LEW.1WR1 Rats: A Novel Model for the Study of Insulin Resistance and Neuroinflammation? UAB School of Medicine Comprehensive Neuroscience Center Retreat Fall 2018 (Abstr.). Birmingham, AL
- Collins, G., Clopp, A. Mercado, L., Love-Rutledge, S. Characterizing the metabolic profile of the Type 1 Diabetes Model, LEW.1WR1 NOBCChE National Meeting 2018(Abstr.). Orlando, FL
- Love-Rutledge S., Lydic T., & Olson L.K. Changes in islet lipid correlate with increases in pro-inflammatory gene expression during the initiation of Type 1 Diabetes NOBCChE National Meeting 2016(Abstr.). Raleigh, NC **Presented poster.**

Published Papers:

1. Love ST, Di Bona KR, Sinha SH, McAdory D, Skinner BR, Rasco JF, & Vincent JB. Urinary Chromium Excretion in Response to an Insulin Challenge Is Not a Biomarker for Chromium Status *Biological Trace Element Research* **2013,** 152(1):57-65
2. Staniek H, Rhodes NR, Di Bona KR, Deng G, Love ST, Pledger LA, Blount J, Gomberg E, Grappe F, Cernosek C, Peoples B, Rasco JF, Krejpcio Z, &Vincent JB. Comparison of Tissue Metal Concentrations in Zucker Lean, Zucker Obese, and Zucker Diabetic Fatty Rats and the Effects of Chromium Supplementation on Tissue Metal Concentrations *Biological Trace Element Research* **2013,** 151(3):373-83
3. Vincent JB, Love S. The Need for Combined Inorganic, Biochemical, and Nutritional Studies of Chromium (III) *Chemistry & Biodiversity* **2012**, 9(9):1923-41
4. Vincent JB, Love S. The binding and transport of alternative metals by transferrin. *Biochimica Biophysica Acta -General Subjects* **2012,** 1820(3):362-78
5. Di Bona KR, Love S, Rhodes NR, McAdory D, Sinha SH, Kern N, Kent J, Strickland J, Wilson A, Beaird J, Ramage J, Rasco JF & Vincent JB. Chromium is not an essential trace element for mammals: Effects of a "low-chromium" diet. *Journal of Biological Inorganic Chemistry*. **2010,** 16(3):381-90.
6. Rhodes NR, McAdory D, Love S, Di Bona KR, Chen Y, Ansorge K, Hira J, Kern N, Kent J, Lara P, Rasco JF & Vincent JB. Urinary chromium loss associated with diabetes is offset by increases in absorption. *Journal of Inorganic Biochemistry.* **2010,** 104(7): 790-97.

Professional Development:

PRIDE-Functional and Translations Genomic of Blood Disorder program Cohort 8 (Fall 2020)
National Research Mentoring Network Grant Writing Group (Fall 2020)
2019 American Chemical Society New Faculty Workshop (Fall 2019)
Advancing Learning Through Evidence-Based STEM Teaching (Spring 2017)
Research Mentor Training (Spring 2016)
Northwestern U NRMN Grant Writers Coaching Group (Spring 2016)
Certificate for College Teaching Institute (May 2015)

Committee on Institutional Cooperation's Professorial Advancement Initiative (Fall 2014-2017)
NRMN-CAN Professional Development and Grant Writing Conference (November 2015)
An Introduction to Evidence-Based Undergraduate STEM Teaching (Fall 2015)
Certification in College Teaching Institute (Spring 2015)

Synergistic Activities

FLAMEnet (Factors affecting Learning, Attitudes, and Mindsets in Education network)
Early Career Reviewer for Journal of Biological Chemistry
UAH Campus PI for Louis Stokes Alliance for Minority Participation
Journal of Biological Chemistry Early Career Reviewer
National Science Foundation, panelist 2019 and 2020
ABRCMS Poster Presentation Judge 2018(Chemistry section)
UAH College of Science, Science Ambassador Advisory Committee
Council of African American Faculty UAH
Ad Hoc reviewer for Biological Trace Element Research
JDRF Students with Diabetes Internship Program Mentor-Summer 2018
ABRCMS Student Travel Award Reviewer-Fall 2015 Fall 2017

Ongoing Research Support

1619659, NSF
Acoff (PI)
09/01/16-08/31/21
A/UA/Alabama LSAMP: Sustainability of Best Practices for STEM Education and Research
The LSAMP Program is aimed at increasing the quality and quantity of students successfully completing science, technology, engineering and mathematics (STEM) baccalaureate degree programs, and increasing the number of students interested in, academically qualified for and matriculated into programs of graduate study. LSAMP supports sustained and comprehensive approaches that facilitate achievement of the long-term goal of increasing the number of students who earn doctorates in STEM fields, particularly those from populations underrepresented in STEM fields.
Role: Co-Investigator