

# John Sterrett

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**Phone:** (731) 819-7433

**Research interests** Gut microbiota, gut-brain axis, multi-omics integration, multivariate statistics, immunology, neuroscience

**Education** **University of Colorado at Boulder (CUB)** Boulder, CO  
PhD in Integrative Physiology August 2020 – Present  
Mentor: Dr. Christopher A Lowry GPA: 4.0.

**East Tennessee State University (ETSU)** Johnson City, TN  
BS in Nutrition August 2016 – May 2020  
Mentor: Dr. William A Clark GPA: 4.0

## Selected coursework

- Graduate: EBIO 5460 Applications of Shotgun Metagenomics in Microbial Ecology, CSCI 5423 Biologically-Inspired Multi-Agent Systems, IPHY 5900 Data Literacy in Biomedical Research, IPHY 5800 Advanced Statistics and Research Methods in Integrative Physiology
- Undergraduate: NTFD 3465 Human Nutrition and Metabolism, NTFD 4447 Nutritional Biochemistry, NTFD 4425 & 4435 Clinical Nutrition I & II

**Honors, awards, scholarships, and fellowships** Summa Cum Laude (ETSU) 2020  
1911 Society Inaugural Member (ETSU) 2020  
College of Clinical and Rehabilitative Health Sciences  
Outstanding Undergraduate Student (ETSU) 2020  
Undergraduate Summer Research Fellowship 2019  
Nutrition Honors-in-Discipline (ETSU) 2018  
Stanton Honors Scholar (ETSU) 2017  
University Honors Scholar (ETSU) 2016

**Publications** **Microbiome Diversity and Differential Abundances Associated with Gastrointestinal Symptoms, BMI, Immune Markers, and Fecal Short Chain Volatile Fatty Acid Profiles**  
Sterrett JD, Clark WA Chandley MJ  
*Undergraduate Honors Theses*, 2020.

## Research experience

### **Behavioral Neuroendocrinology Lab**

Mentor: Christopher A Lowry (CUB)

July 2020 – Present

- Led microbiome analysis for multiple projects within the lab and collaborations with other labs.
- Taught microbiome analysis techniques (via QIIME2) and statistics to other lab members and collaborators.
- Wrote review chapter of “The influence of microbiota on brain structure and functioning affecting neuropsychiatric outcomes” to be published by Springer.
- Analyzed untargeted metabolomics data for various *Mycobacterium vaccae* strains and plasma of animals treated with the strains.

### **Nutritional Biochemistry Lab**

Mentor: William A Clark (ETSU)

August 2017 – May 2020

- Collaborated with research faculty at ETSU, Quillen College of Medicine, and Bill Gatton College of Pharmacy for research regarding the gut-brain axis, metabolic syndrome, vitamin levels, and supplement bioavailability.
- Instructed undergraduate experimental foods classes in performing proximate analysis on experimental foods.
- Designed and implemented a study to analyze the properties of the ETEE brand beeswax wrap.

### **Zahner Electrophysiology Lab**

Mentor: Matthew Zahner (ETSU)

April 2018 – May 2018

- Assisted in rat autopsy and surgery in preparation for locating blood pressure regulatory centers of the brain and sympathetic denervation of the spleen in sepsis

## Teaching experience

### **Teaching assistant, Department of Chemistry (CUB)**

CHEM 1133: General Chemistry II

Spring 2021

### **Teaching assistant, Department of Integrative Physiology (CUB)**

IPHY 2420: Introduction to Nutrition

Fall 2020 – Spring 2021

IPHY 4420: Nutrition for Human Performance

Fall 2020

### **Supplemental Instructor, Department of Health Sciences (ETSU)**

HSCI 2010: Anatomy & Physiology II

Spring 2020

### **Lead Tutor, TRIO-Student Support Services (ETSU)**

Introductory, General, and Organic Chemistry

Fall 2018 – Spring 2020

Biology, Microbiology, and Anatomy & Physiology

Fall 2018 – Spring 2020

	Paper Writing	Fall 2019
	<b>Instructor, Unaka High School Band (Unaka, TN)</b>	
	Low Brass Music and Marching Fundamentals	Summer 2019
	<b>Private Tutor (Johnson City, TN)</b>	
	Grades 3-12 Math and Science	Spring 2019 – Summer 2020
Work experience	ETSU Outdoor Adventure	Johnson City, TN
	Assistant Program Leader	Summer 2018
Posters and presentations	<b>Stress and the Gut Microbiota in Athletes</b>	October 2020
	CU Boulder Nutrition for Human Performance Guest Lecture Series	
	<b>Microbiome Diversity and Differential Abundances Associated with Gastrointestinal Symptoms, BMI, Immune Markers, and Fecal Short Chain Volatile Fatty Acid Profiles</b>	May 2020
	American Society for Nutrition Conference (presented virtually)	
	<b>Properties of the ETEE Compostable Plastic Wrap Substitute</b>	May 2020
	American Society for Nutrition Conference (presented virtually)	
	<b>The Fecal Fermentation Profile of Patients with HIV</b>	April 2020
	Appalachian Student Research Forum (cancelled due to COVID-19)	
	<b>Short and Long Chain Fatty Acid Levels as Indicators of Health in HIV-infected vs Non-infected Individuals</b>	February 2020
	Tennessee Posters at the Capitol	
	<b>Properties of the ETEE Wrap Biodegradable Plastic Wrap Substitute</b>	
	SoCon Undergraduate Research Forum	November 2019
	<b>Short-Chain Fatty Acid Profiles for Mouse Models of Autism Spectrum Disorder</b>	April 2019
	Appalachian Student Research Forum	
Skills	<b>Coding</b>	
	Proficient in: Python, R, UNIX command line, LaTeX, Markdown, Git, Jupyter Notebooks/Google CoLaboratory	
	Familiar with: Julia, Vim	
	<b>Analysis Programs</b>	
	Proficient in: Global Natural Products Social Molecular Networking (GNPS), Shimadzu Gas Chromatography LabSolutions	

## **General Programs**

Proficient in: Microsoft Office, Google Suite

## **Lab Skills**

Proficient in: Gas Chromatography, Proximate Analysis (Bomb Calorimetry, Ferric Reducing Ability in Plasma, Soxhlet, Kjeldahl, Fiber Analysis, Ashing)

Familiar with: Enzyme-linked immunosorbent assay

## **Service and outreach**

### **Organizer, Neurodiverse Food Safety & Cooking Class**

ETSU

April 2020

### **Organizer, Multicultural Nutrition & Cooking Class**

ETSU

February 2020

### **Organizer/Instructor, Summer Bridge Program Nutrition & Cooking Seminars**

ETSU

June 2019

### **Volunteer, Adult Continued Learning**

Johnson City Food City

September 2018 — November 2018

### **Volunteer, Appalachian Resource Conservation and Development Council**

Johnson City Farmers' Market

September 2018 — October 2018

## **Professional memberships**

### **Alpha Eta Society**

May 2020 – Present

### **American Society for Nutrition**

January 2020 – Present

### **ETSU Student Dietetic Association**

January 2019 – May 2020

(Vice President)

March 2019 – May 2020

### **Allied Health Student Association**

January 2017 – October 2018

(President)

August 2017 – May 2018

(Secretary)

January 2017 – August 2017