

Annual Meeting
Oklahoma Society of Physiologists
Society for Neuroscience Tulsa Chapter
Tulsa Area Bioscience Education and Research
Consortium

July 19, 2024

**Annual Joint Research Meeting
Biomedical, Biological, Neuroscience, Physiology, Forensics**

Oklahoma Society of Physiologists (OSP)
Society for Neuroscience Tulsa Chapter (SfN-T)
Tulsa Area Bioscience Education and Research Consortium (TABERC)

Tandy 4th floor Conference Center – breakfast, lunch, oral and poster presentations, awards

Registration: <https://forms.office.com/r/bcwMjmCxMa>

Scan the QR
code to register!



Agenda – Friday, July 19th 2024

All oral presentations will be held in-person and via Zoom

<https://okstate-edu.zoom.us/j/96170313517?pwd=akpRcHY4TXl5NzhyR1hhZ0lSSE1ldz09>

Meeting ID: 961 7031 3517

Passcode: 512194

- 9:00 - 9:20 AM** Welcome message SfN-T, Dolores Vazquez-Sanroman, Ph.D., OSU-CHS
Welcome message TABERC, Janaki Iyer, Ph.D., NSU
Welcome message OSP, Al Rouch, Ph.D., OSU-CHS
- 9:20 - 9:50 AM** **Keynote Speaker** – Heartland Physiological Society Dr. Al Rouch
- 10:00 - 10:50 AM** **Keynote Speaker** - TABERC
Dr. Jessica Martin, Dean of the College of Science and Health Professions at
Northeastern State University
"High Impact Practices: Benefits of Undergraduate Research"
Moderator: Dr. Iyer
- 11:00 - 11:50 AM** **Keynote Speaker** – Society of Neuroscience
Dr. Shailesh Khatri
Principal Investigator at National Center for Wellness & Recovery
"Understanding the co-use of addictive substances from a behavioral perspective"
Moderator: Dr. Mitra
- 12:00 - 1:00 PM** **Lunch** (Sponsored by Oklahoma Society of Physiologists)
Tandy Conference Center 4th floor
- 1:00 - 3:00 PM** **Oral Presentations followed by Poster Session**
Moderator: Senior Graduate Student
Tandy Conference Center 4th floor
- 3:00 PM – 4 PM** **Concluding Remarks**
Poster Presentation Awards (Sponsored by OSU Office of Research),
Moderator – Dr. Core

PROGRAM

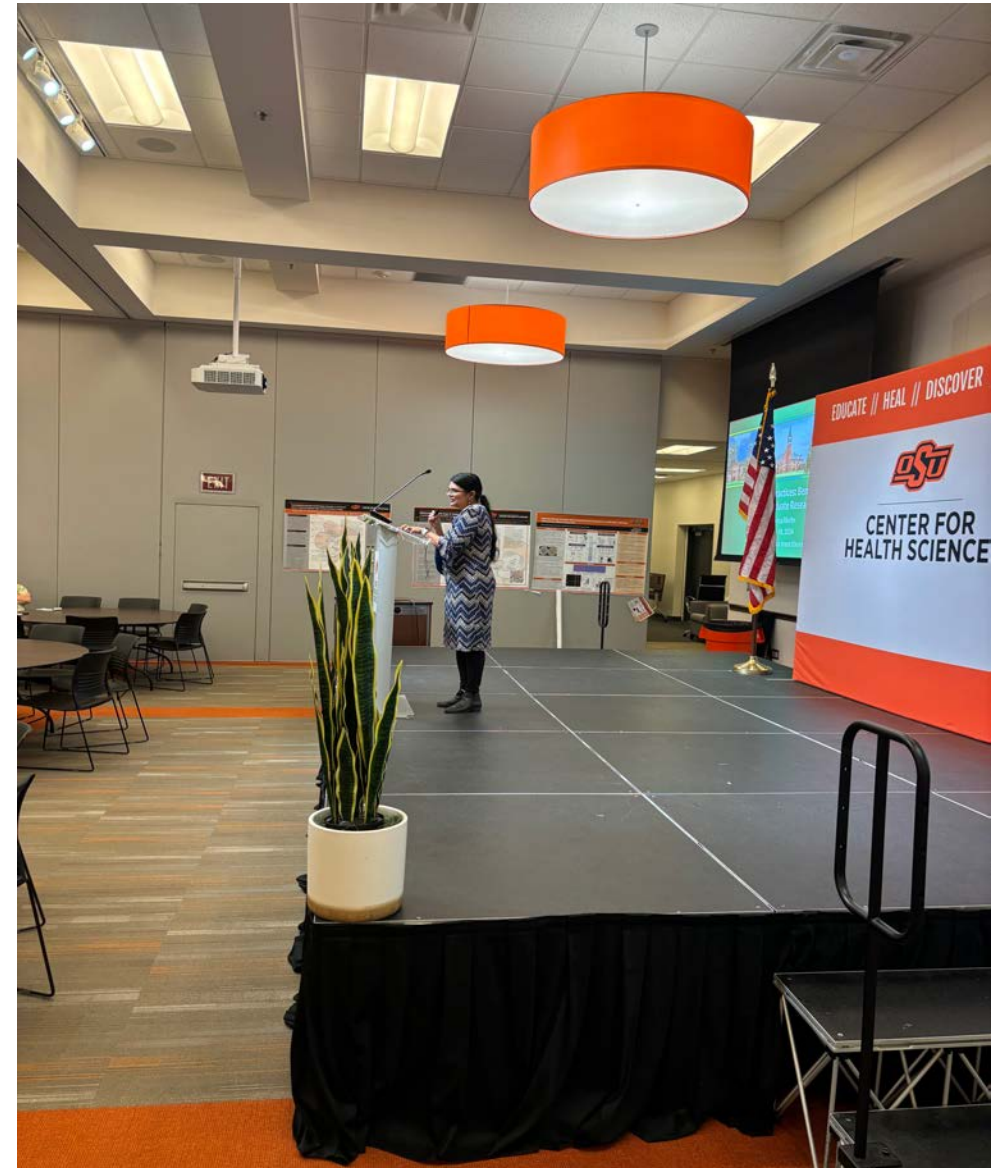
Organizing Committee

- Dr. Sheri Core
- Dr. Janaki Iyer
- Dr. Malabika Maulik
- Dr. Swarup Mitra
- Dr. Al Rouch

Dr. Swarup Mitra



Dr. Janaki Iyer



Dr. Jessica Martin
Professor of Chemistry
and Associate Dean of
College of Science and
Health Professions, NSU
*High Impact Practices:
Benefits of
Undergraduate
Research*



Meeting 2024

Dr. Shailesh Khatri
National Center for
Wellness and Recovery
*Understanding the co-
use of Addictive
Substances from a
Behavioral Perspective*



Bashar Albik
*Modulation of
the UPR in
TNBS Induced
Colitis*



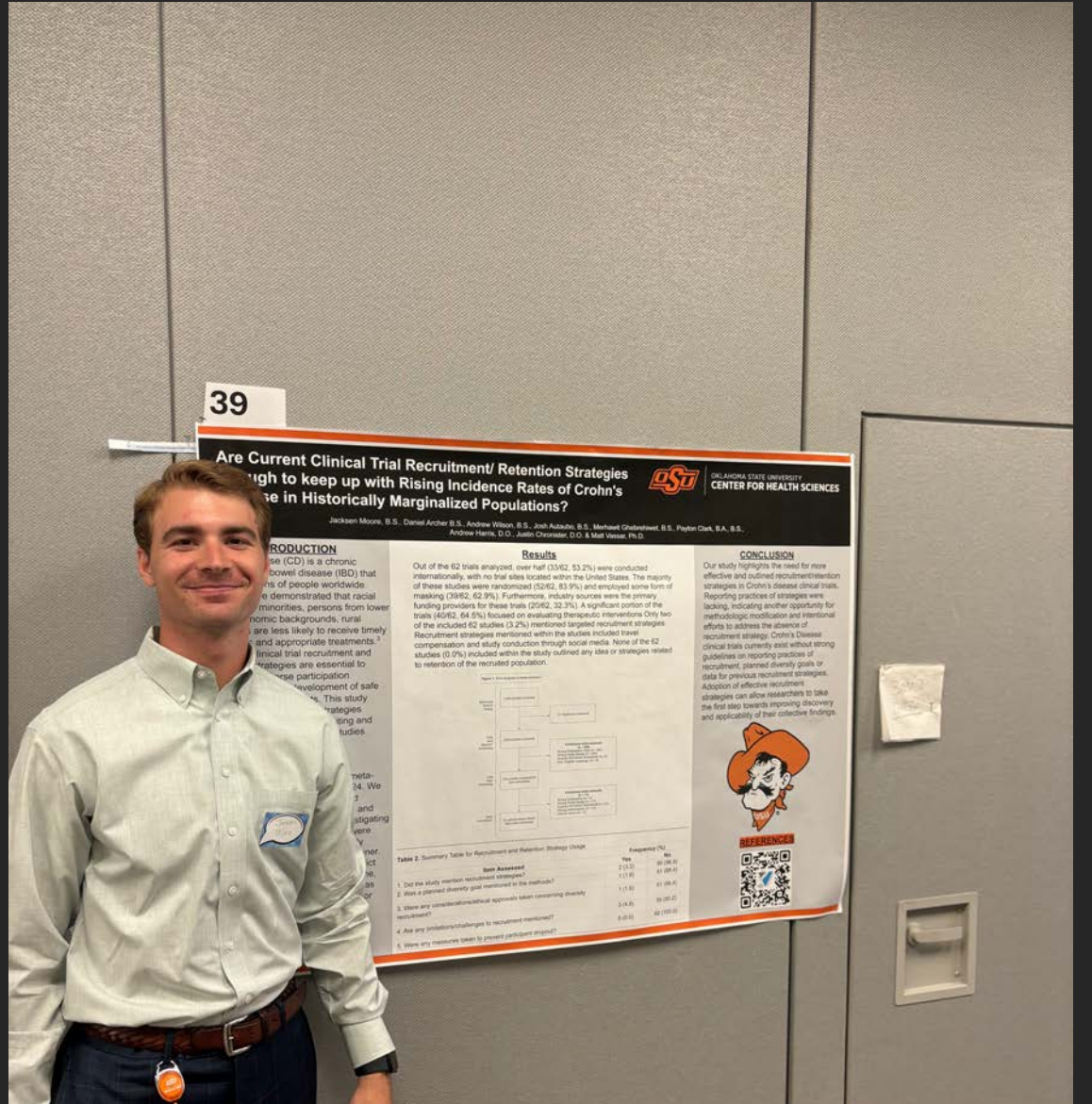
Chalisa Longden
*Recreating
POLEI-FILS
Mutation in
Human Cells
using
CRISPR/Cas9*



Meeting 2024



Meeting 2024





71

Supernumerary Ossicles of the Hand: Persistent Cutaneous Hemangiomas with Unusual Histologic Features: A Case Report

Matthew Robinson, M.D., G. O'Brien, B.S., Paul Laybrook, B.S., Igor Shumilov, M.D.

SUMMARY TABLE OF THOA (n=8)

Case	Age	Sex	Site	Duration	Histology	Immunohistochemistry	Genetics	Outcome
1	10	M	Hand	10 years	Spindle cells	CD34+	None	Resolved
2	15	F	Hand	5 years	Spindle cells	CD34+	None	Resolved
3	20	M	Hand	15 years	Spindle cells	CD34+	None	Resolved
4	25	F	Hand	20 years	Spindle cells	CD34+	None	Resolved
5	30	M	Hand	25 years	Spindle cells	CD34+	None	Resolved
6	35	F	Hand	30 years	Spindle cells	CD34+	None	Resolved
7	40	M	Hand	35 years	Spindle cells	CD34+	None	Resolved
8	45	F	Hand	40 years	Spindle cells	CD34+	None	Resolved

CONCLUSION

The case of THOA is a rare entity that is characterized by the presence of supernumerary ossicles of the hand. The histologic features are unusual and can be mistaken for other entities. The immunohistochemical findings are helpful in the diagnosis of this entity. The genetic findings are also helpful in the diagnosis of this entity.

REFERENCES

1. Robinson M, O'Brien G, Laybrook P, Shumilov I. Supernumerary ossicles of the hand: persistent cutaneous hemangiomas with unusual histologic features. *J Cutan Med Surg Oncol*. 2018;24(12):2018-2022.

76

Producing Fluorescent Uropathogenic *E. coli*

Tram-An Ho¹, Alejandro Lopez², & Janaki K. Iyer²

¹ School of Science & Agriculture, Tulsa Community College, Tulsa, OK, and ² Department of Medical Microbiology, The University of Oklahoma Health Sciences Center, Oklahoma City, OK

Abstract

The ability to produce fluorescently labeled *E. coli* is a valuable tool in research. We have developed a protocol for producing fluorescently labeled *E. coli* that is easy to use and can be performed in a laboratory setting. The protocol involves the transformation of *E. coli* with a plasmid containing a fluorescent protein gene. The transformed *E. coli* are then grown in a medium containing a carbon source that is metabolized by the bacteria, resulting in the production of a fluorescent signal. The fluorescently labeled *E. coli* can be used for a variety of applications, including the study of bacterial growth and the development of diagnostic tools.

Introduction

Escherichia coli is a common bacterium that is found in the human gut. It is a facultative anaerobe and can grow in a variety of environments. *E. coli* is also a model organism for studying bacterial growth and metabolism. The ability to produce fluorescently labeled *E. coli* is a valuable tool in research. We have developed a protocol for producing fluorescently labeled *E. coli* that is easy to use and can be performed in a laboratory setting. The protocol involves the transformation of *E. coli* with a plasmid containing a fluorescent protein gene. The transformed *E. coli* are then grown in a medium containing a carbon source that is metabolized by the bacteria, resulting in the production of a fluorescent signal. The fluorescently labeled *E. coli* can be used for a variety of applications, including the study of bacterial growth and the development of diagnostic tools.

Results

The results of the experiment show that the fluorescently labeled *E. coli* were able to grow in a medium containing a carbon source that was metabolized by the bacteria, resulting in the production of a fluorescent signal. The fluorescent signal was detected by a fluorescence spectrophotometer. The results show that the fluorescently labeled *E. coli* were able to grow in a medium containing a carbon source that was metabolized by the bacteria, resulting in the production of a fluorescent signal. The fluorescent signal was detected by a fluorescence spectrophotometer.

Conclusion and Future

The results of the experiment show that the fluorescently labeled *E. coli* were able to grow in a medium containing a carbon source that was metabolized by the bacteria, resulting in the production of a fluorescent signal. The fluorescent signal was detected by a fluorescence spectrophotometer. The results show that the fluorescently labeled *E. coli* were able to grow in a medium containing a carbon source that was metabolized by the bacteria, resulting in the production of a fluorescent signal. The fluorescent signal was detected by a fluorescence spectrophotometer.

References

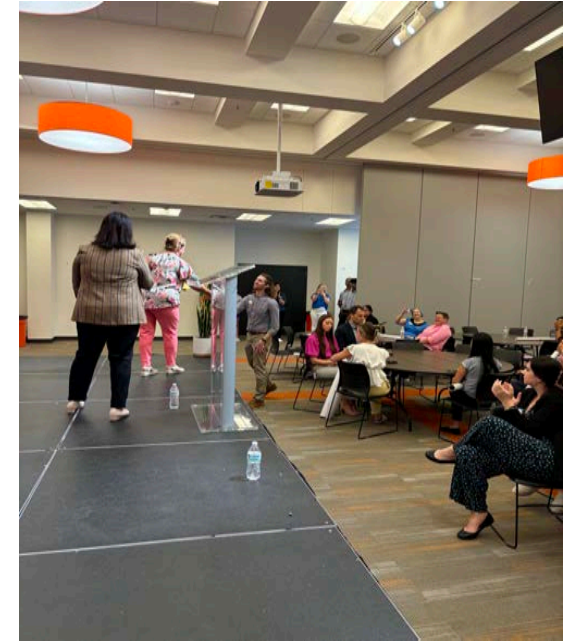
1. Ho T, Lopez A, Iyer J. Producing fluorescent uropathogenic *E. coli*. *J Microbiol Methods*. 2018;150:1-5.





Meeting 2024

Dr. Sheri Core & Dr. Malabika Maulik presenting student awards





Meeting 2024