

# *3<sup>rd</sup> Annual Joint Meeting*



*July 26, 2019*

*1111 West 17<sup>th</sup> St.  
Tulsa, OK*



**3<sup>rd</sup> Annual Joint Meeting**  
**Oklahoma Society of Physiologists (OSP)**  
**Tulsa Chapter of the Society for Neuroscience (T-SfN)**  
**Tulsa Area Bioscience Education and Research Consortium (TABERC)**  
**July 26, 2019**

**Preliminary Program**

8:00 – 9:00 Registration (Tandy foyer); put up posters (Founder's Hall)

9:00 – 10:30 **TABERC symposium. A summer of undergraduate research** (Tandy 171; moderated by K. Curtis, PhD, Oklahoma State University – Center for Health Sciences; Chair, TABERC Board of Advisors)

**The Hemodynamics of the Carotid Rete in the Brown Greater Galago (*Otolemur crassicaudatus*).** Sana Ahmed\*<sup>1</sup>, B. Shearer<sup>2</sup>, A. Burrows<sup>3</sup>, T. Smith<sup>4</sup>, H. O'Brien<sup>5</sup>  
<sup>1</sup>Tulsa Community College, <sup>2</sup>NYU School of Medicine, <sup>3</sup>Duquesne University, <sup>4</sup>Slippery Rock University; <sup>5</sup>Oklahoma State University – Center for Health Sciences

**Propensity to Associate with Charged Surfactants and Hydrophobic Substances in *Serratia* Species Exhibiting Disparate Susceptibility to Triclosan Sensitization.** Garrett R. Harper\*<sup>1</sup>, A.S. Rigsbee<sup>2</sup>, D. Reed<sup>3</sup>, F.R. Champlin<sup>2</sup>  
<sup>1</sup>Tulsa Community College, <sup>2</sup>Oklahoma State University - Center for Health Sciences, <sup>3</sup>Oklahoma State University

**Investigation of Stable Fluorescent Protein Expression in Lactobacilli.** Tri Nguyen\*<sup>1</sup>, S. Assefa<sup>2</sup>, M. Joyner<sup>2</sup>, B. Perez<sup>2</sup>, J.T. Curtis<sup>2</sup>, G. Köhler<sup>2</sup>  
<sup>1</sup>Tulsa Community College, <sup>2</sup>U Oklahoma State University - Center for Health Sciences

**Antibacterial Activity of Thymoquinone on Select Nosocomial Bacteria in Vitro.** Jacob Layne\*, J. Gaikwad  
Oral Roberts University

**Use of liposomes to treat kidney infections caused by invasive uropathogenic *Escherichia coli*.** Alejandro G. Torres\*<sup>1</sup>, J. VanOsdol<sup>2</sup>, H. Ashar<sup>2</sup>, A. Ranjan<sup>2</sup>, J.K. Iyer<sup>1</sup>  
<sup>1</sup>Northeastern State University - Broken Arrow, <sup>2</sup>Oklahoma State University, Stillwater

**The Effects of  $\beta$ -FNA Administration on RSD-induced Neuroinflammation.** Christopher Johnson\*<sup>1</sup>, D. Buck<sup>2</sup>, K. McCracken<sup>2</sup>, R.L. Davis<sup>2</sup>  
<sup>1</sup>Tulsa Technical College, <sup>2</sup>Oklahoma State University – Center for Health Sciences

10:30 - 10:45 Coffee break (Tandy foyer)

10:45 – 11:45 **Keynote address. Aging-related loss of thirst: insights from aged rats.** (Tandy 171)  
Robert Thunhorst, PhD, Research Professor, Psychological and Brain Sciences, University of Iowa

11:45 – 12:45 Lunch (Founders Hall)

12:15-12:45 Speed Data (Founders Hall)

1:00 – 1:30 **OSP Symposium. Panel Discussion: Enhancing research opportunities in Northeast OK.** (Tandy 171; moderated by A. Rouch, PhD, Oklahoma State University - Center for Health Sciences, OSP President)

1:30 – 2:00 **T-SfN Symposium. The Brain Initiative: Educational opportunities at OSU** (Tandy 171; moderated by D. Vazquez-Sanroman, PhD, Oklahoma State University – Center for Health Sciences, President, T-SfN)

2:00 - 3:30 **Biomedical Research in Tulsa: Posters by faculty, graduate, undergraduate, and high school students** (Founders Hall)

- 1) **Female mice have short-term protection against blood pressure elevation during long-term consumption of high salt, high fructose diet.** C. Waturuocha\*, L. Fan, A. Rouch; Oklahoma State University-Center for Health Sciences
- 2) **Neuronal activation in Nucleus Tractus Solitarii of Young and Aged Female rats after  $\beta$ -Adrenergic Stimulation.** W. Hood\*, R.L. Thunhorst, K.S. Curtis; Northeastern State University, Broken Arrow; University of Iowa, Oklahoma State University-Center for Health Sciences
- 3) **Neuronal Primary Cilia Changes in Response to Sucrose Intake in Adolescent Rats.** F. Abu-Saleh\*, N. Wilson, K. Curtis, D. Vazquez-Sanroman; Northeastern State University, Oklahoma State University - Center for Health Sciences
- 4) **The expression of aspartate aminotransferase and glutaminase in dorsal root ganglion neuronal cell bodies of glutaminase heterozygous rats during adjuvant induced arthritis.** R.D. Pande\*, K.E. Miller; Oklahoma State University - Center for Health Sciences
- 5) **Evaluating firefighter's functional movement.** S. Al-mur\*, J. Volberding; Jenks High School, Oklahoma State University - Center for Health Sciences
- 6) **Evaluation of bacterial isolates from cystic fibrosis patients.** P. George\*, S. Ruskoski; Jenks High School, Northeastern State University, Broken Arrow, Oklahoma State University-Center for Health Sciences
- 7) **Modeling "Yo-Yo Salt Dieting": Impact on Body Fluid Balance in Female Rats.** E. Ehresman\*, K.S. Curtis; Oklahoma State University - Center for Health Sciences

- 8) **TNBS Induced Hypermethylation Recruits MeCP2 Binding in GLS Promotor Region.** C. Eslinger\*, K.E. Miller, S. Das; Oklahoma State University - Center for Health Sciences
- 9) **The Effects of Vitamin B<sub>3</sub> and B<sub>12</sub> on VEGF Gene Expression of WEHI164 Mouse Cancer Cell Line.** A. Hollihan\*, J. Kim; Rogers State University
- 10) **Smoking During Pregnancy: Do Residential Fathers Moderate the Effects of Childhood Adversity on Cotinine Levels?** S. Tiemeyer\*, K. Shreffler, J. Croff, & C. Joachims; Oklahoma State University - Center for Health Sciences, Oklahoma State University – Tulsa
- 11) **The Adolescent Brain on Sucrose: Investigating Dopamine Release in Reward Pathways.** L. Longaberger\*, E. Espinosa, K. McCracken, D. Vazquez-Sanroman, N. Wilson, K.S. Curtis; Northeastern State University, Broken Arrow, Oklahoma State University – Center for Health Sciences
- 12) **Azacidine treatment impairs DNA methylation in 2,4,6 trinitrobenzenesulfonic acid-induced colitis.** K. Marquette\*, C. Eslinger, K. Miller, S. Das; Tulsa Community College, Oklahoma State University - Center for Health Sciences
- 13) **Selective Inhibition of NGF high affinity receptor alters Glutaminase expression in rat Dorsal root ganglion neurons during peripheral inflammation.** V. Gujar\*, K.E. Miller; Oklahoma State – Center for Health Sciences
- 14) **Bacteriophage Genome Analyses Phage Therapy.** S. Raney\*, S. Assefa, J. Bleichner, A. Abraham, S. Bigelow, B. Perez, J.T. Curtis, G. Köhler; Tulsa Community College, Oklahoma State University - Center for Health Sciences
- 15) **Sugar and Addiction: Sucrose and Its Effect on D1 – Receptor Levels in the Adolescent Rat Brain.** H. Peterson\*, K.S. Curtis, D. Vazquez-Sonroman, N. Wilson; Northeastern State University Broken Arrow, Oklahoma State University – Center for Health Sciences
- 16) **Antibacterial Properties of EIPE-1 Screened Against Bacteria with Disparate Outer Membrane Permeability Properties.** D. Huang\*; D. Reed, F.R. Champlin; Jenks High School, Oklahoma State University - Stillwater, Oklahoma State University-Center for Health Sciences
- 17) **The Immunoreactive Expression Pattern of NeuN as a Neuronal-Nuclei Qualifier for High-Throughput Data Analysis in Rat Dorsal Root Ganglion: 2-day Adjuvant-Induced Arthritis.** M.B. Anderson\*, K.E. Miller; Oklahoma State University - Center for Health Sciences
- 18) **Neuroimmune Signaling Associated with Weight Gain in OVX Rats: Effect of Voluntary Exercise.** S. Rivera\*, D. Wu\*, D. Buck, R.L. Davis, K.S. Curtis; Oklahoma State University – Center for Health Sciences
- 19) **We are all in this together: Examining the Impact of Working Alliance in Group Therapy.** J. Santiago\*, E. Akeman, R. Aupperle; Laureate Institute for Brain Research
- 20) **IL-33 Expression is Increased in Patients with HCV-associated Cirrhosis and HCC.** A. Brooks\*, S. Groover, S. Nicks, B. Okda, R. Kaul; Oklahoma School of Science and Mathematics, Oklahoma State University - Center for Health Sciences

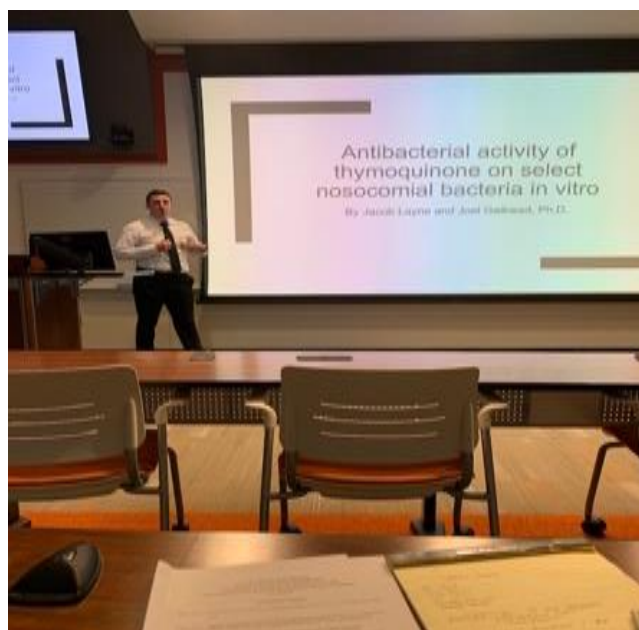
- 21) **fMRI hyperscanning for studying parent-child interactions.** K.L. Kerr\*, E.L. Ratliff, M. Misaki, A.J. Moore, K.T. Cosgrove, D.C. DeVille, K. Burrows, W.K. Simmons, J. Bodurka, A. Sheffield Morris; Oklahoma State University, Stillwater
- 22) **Satellite glial cells are required for painful inflammatory response.** G.J. Lapp\*, K.E. Miller; Oklahoma State University – Center for Health Sciences
- 23) **Characterization of pro-inflammatory responses in the 5637 human bladder cell line upon bacterial infection.** Z. Khatib\*, J. Iyer; Northeastern State University – Broken Arrow
- 24) **Alcohol Abuse.** M. Merrill\*; Booker T. Washington High School
- 25) **Dietary sodium environment during early development modifies morphine-seeking response in adolescent rats.** B. Bland\*, J. Sanchez, K.S. Curtis, D. Vazquez-Sanroman; Oklahoma State University – Center for Health Sciences
- 26) **Comparing the effects of Trypsin and TrypLE on reattachment and susceptibility to infection of 5637 bladder cells.** J. Burdess\*, J.K. Iyer; Northeastern State University, Broken Arrow
- 27) **Evaluation of enzymatic and chemical epidermal-dermal separation techniques of rat skin with immunohistochemistry, PCR and Western blot analysis.** K. Lehew, M. Anderson, K.E. Miller; Oral Roberts University, Oklahoma State University – Center for Health Sciences



**Recognition of outstanding service and job performance.  
 Dr. Diana Spencer, TCC, receives award from Dr. Kath Curtis.  
 Dr. Spencer retires at end of the academic year. You will be missed!!**



**TABERC Students**



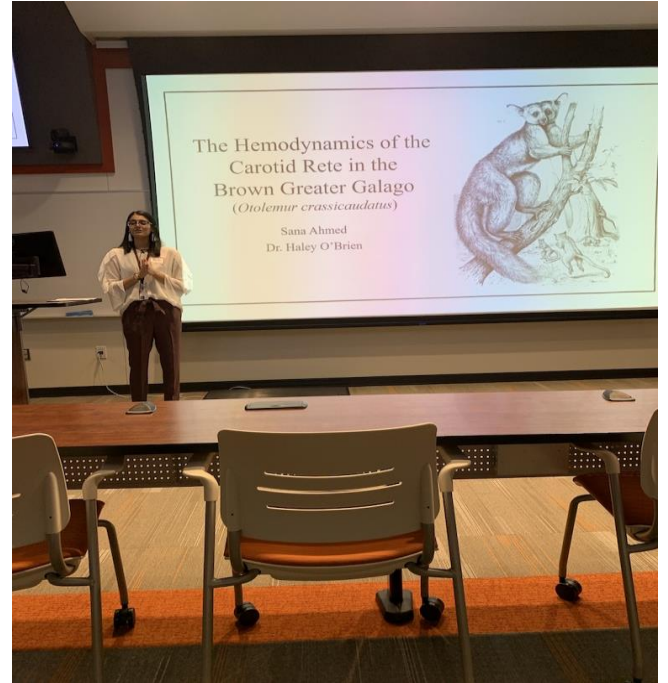
**Jacob Layne**



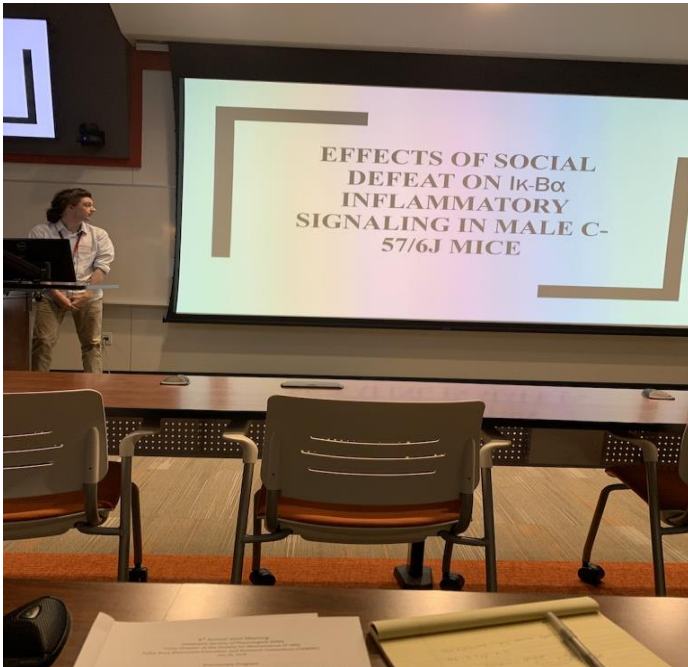
**Tri Nguyen**



**Garrett R. Harper**



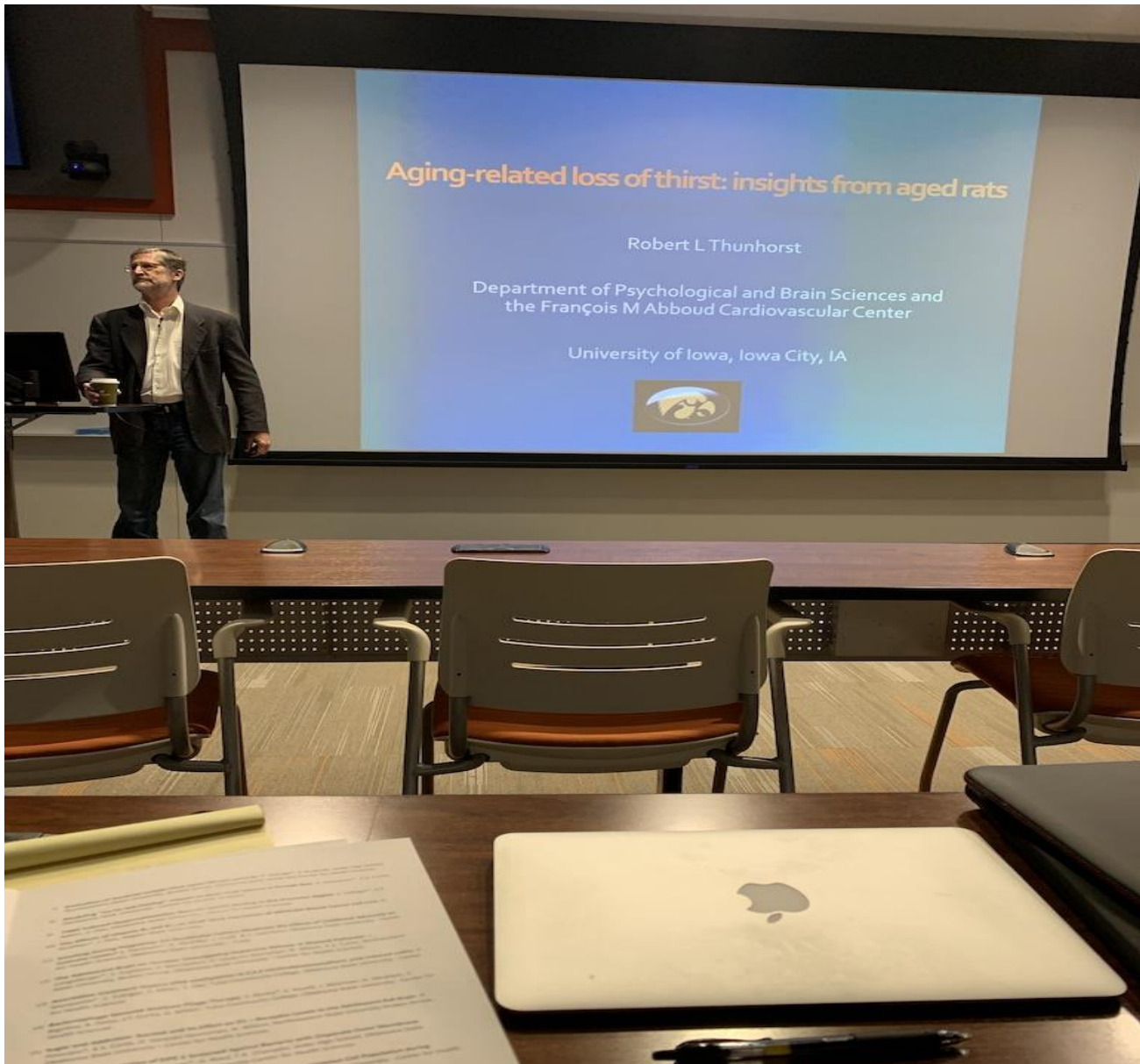
**Sana Ahmed**



**Christopher Johnson**



**Alejandro G. Torres**



**Keynote Address**

**Aging-related loss of thirst: insights from aged rats.**

**Robert Thunhorst, PhD, Research Professor, Psychological and Brain Sciences, University of Iowa**





**Luncheon**



**OSP Symposium: Panel Discussion: Enhancing research opportunities in Northeast OK  
Kelly McCracken, Dr. Charles Amlaner, Dr. Sapda Das, Dr. Dolores Sanroman  
(Moderated by Dr. Al Rouch, OSP President)**



**Dr. Misty Hawkins**

**T-SfN Symposium. The Brain Initiative: Educational opportunities at OSU  
(moderated by Dr. Dolores Vazquez-Sanroman, President, TSfNS)**



**Poster Sessions**