

# 6th Annual Postdoctoral Research Symposium

Monday, Sept. 19, 2022 | 1–5 p.m. | Memorial Student Center | 2300 A&B

## AGENDA

### WELCOME & OPENING REMARKS

1:00 – 1:15 p.m.

#### Introduction

**Dr. Andreea Trache**, Faculty Fellow, TAMU Office of Postdoctoral Affairs

#### Opening Remarks

**Dr. Gerianne Alexander**, Associate Vice President for Research and Research Integrity officer

**Dr. Henry Fadamiro**, Associate Dean for Research, College of Agriculture and Life Sciences

**Jeff Sammons**, Associate Executive Director, Texas A&M Energy Institute, College of Engineering

### FLASH TALKS

1:15 – 2:15 p.m.

**VOTE HERE FOR FLASH TALKS  
PEOPLE'S CHOICE AWARD**



1	1:15 pm	<b>Dr. Chander Amgoth</b> Biomedical Engineering	MXene@Chitosan based Hydrogel with Angiogenic Stimulation and Antibacterial Activity for Chronic Wound Healing.
2	1:18 pm	<b>WITHDRAWN</b>	
3	1:21 PM	<b>Dr. Vikas Chonira</b> Microbial Pathogenesis and Immunology	DARPinS as SARS-cov2 therapeutics
4	1:24 PM	<b>Dr. Hassan Hakimi</b> Veterinary Pathobiology	Functional characterization of tick carboxypeptidase inhibitor during tick feeding
5	1:27 PM	<b>Dr. Zhenbo Huang</b> Neuroscience & Experimental Therapeutics	Chronic alcohol drinking persistently suppresses thalamostriatal excitation of cholinergic neurons to impair cognitive flexibility
6	1:30 PM	<b>Dr. Ishaq Khan</b> Pharmaceutical Sciences	Innovative Dual Anti-HER2-VEGFR with anti-EMT Targeted Therapy for Resistant Metastatic Breast Cancer
7	1:33 PM	<b>Dr. Matthew Kulpa</b> Veterinary Pathobiology	The complex historical biogeography of Onchocerca lineages infecting wild ungulates in North America

8	1:36 PM	<b>Dr. Ziyang Lei</b> Atmospheric Science	Effect of Acidity and Liquid-Liquid Phase Separation on Heterogeneous Ice Nucleation
9	1:39 PM	<b>WITHDRAWN</b>	
10	1:42 PM	<b>Dr. Chelsea Miranda</b> Entomology	The Black Soldier Fly: A Cornucopia of Waste Digestion or Snake Oil?
11	1:45 PM	<b>Dr. Shobana Navaneethalakrishnan</b> Medical Physiology	Blood Pressure and Salt Differentially regulate Testicular Immune Cell Populations in Hypertensive Mice
12	1:48 PM	<b>Dr. Thu-Thuy Nguyen</b> Veterinary Pathobiology	Highly conserved and <i>Borrelia burgdorferi</i> responsive tick saliva serpin is an anticoagulant and anti-complement protein that rescues the Lyme disease agent from complement-mediated killing.
13	1:51 PM	<b>Dr. Seema Rana</b> Entomology	Differential responses to double-stranded RNA (dsRNA) injection and feeding in Mormon cricket, <i>Anabrus simplex</i>
14	1:54 PM	<b>Dr. Siara Rouzer</b> Neuroscience & Experimental Therapeutics	Exposure to alcohol and cannabinoids during the second trimester-equivalent in mice impairs arterial resistance and increases cardiac stroke volume in fetal cerebral and umbilical arteries.
15	1:57 PM	<b>Dr. Meichen Wang</b> Veterinary Pathobiology	Application of Edible Montmorillonite Clays for the Absorption and Detoxification of Microcystin
16	2:00 PM	<b>Dr. Will Whitham</b> Ecology & Conservation Biology	Chimpanzee gaze behaviors and visual complexity
17	2:03 PM	<b>Dr. Peng Zhang</b> Plant Pathology and Microbiology	Systematic Chem-Bio Interface Design for Rapid Conversion of CO <sub>2</sub> to Bioplastics in an Integrated System

## **BREAK**

2:15 – 2:30 p.m.

## **POSTER PRESENTATIONS**

2:30 – 3:45 p.m.

**VOTE HERE FOR POSTER PRESENTATIONS  
PEOPLE'S CHOICE AWARD**



- |   |   |  |
|---|---|--|
| 1 | <b>Dr. Irshad Ahmad</b><br>Veterinary Physiology and Pharmacology | High-throughput LC-MS/MS steroid quantification of rat renal medulla reveals sexual dimorphism of renal steroidogenesis            |
| 2 | <b>Dr. Moiz Ansari</b><br>Veterinary Pathobiology                 | <i>Ixodes scapularis</i> tick calreticulin binds complement proteins but does not affect the deposition of membrane attack complex |
| 3 | <b>Dr. Junhwi Bak</b><br>Aerospace Engineering                    | Time-resolved experimental observation of surface cooling by emitted electrons in the thermionic discharge                         |

4	<b>Dr. Anton Classen</b> Soil and Crop Sciences	Modeling the Image Formation Process in Fourier Domain Optical Coherence Microscopy for a Bessel-like LP02 Mode from a Higher Order Mode Fiber
5	<b>Dr. Ivette Cornejo Corona</b> Biophysics and Biochemistry	In vivo productivity evaluation for mutants in the algal hydrocarbon biosynthesis enzyme lycopaoctaene synthase
6	<b>Dr. Lopamudra Das Ghosh</b> Biomedical Engineering	Tumor Microenvironment on Chip: Role of Platelet in Angiogenesis
7	<b>Dr. Roopa Dharmatti</b> Biochemistry and Biophysics	Discovering epimerase reactivity determinants in two families in the enolase superfamily.
8	<b>Dr. Zehuan Ding</b> Pharmacy Instruction	Fructose in the High-fat diet exacerbates liver dysfunctions in male mice by regulating Sirtuins
9	<b>Dr. Ana Escocard</b> Biochemistry and Biophysics	A novel role for Threonine Deaminase 2 in tomato resistance to bacterial infection
10	<b>Dr. Alex Gaithuma</b> Veterinary Pathobiology	Whole system pan-transcriptome analysis of the black-legged tick ( <i>Ixodes scapularis</i> ) during <i>Borrelia burgdorferi</i> transmission
11	<b>Dr. Adarsh K. Gupta</b> Entomology	Functional Requirements of the Yellow Fever Virus Capsid Proteins Antagonism of RNA Silencing
12	<b>Dr. Jaclyn Iannucci</b> Neuroscience and Experimental Therapeutics	Targeting meningeal B cells in the 5xFAD model of Alzheimer's disease partially ameliorates behavioral dysfunction
13	<b>Dr. Manish Jana</b> Chemistry	Bond Trading: e-Deal with NO Currency
14	<b>Dr. Cameron Manche</b> Geology & Geophysics	Geological Characterization of the Coastal Bend Carbon Storage Complex, Corpus Christi, Texas
15	<b>Dr. Jeannine Ott</b> Veterinary Medicine Pathobiology	Evolution of surrogate light chain in tetrapods and the relationship between lengths of CDR H3 and VpreB tails
16	<b>Dr. Angel Renteria</b> Chemistry	General and Practical Route to Diverse 1, 3-(Difluoro) alkyl bicyclo [1.1. 1]-Aryl Pentanes Enabled by an Fe-Catalyzed Multicomponent Radical Coupling
17	<b>Dr. Nitya Shree</b> Pharmaceutical Sciences	High fat-high fructose diet blocks miRNA biogenesis machinery via miR-103 affecting brown adipocyte function
18	<b>Dr. Bhupinder Singh</b> Texas A&M AgriLife Research – Vernon	Improving Soil Cover, Health, and Resilience with Pasture Cropping
19	<b>Dr. Lavanya Venkatasamy</b> Neuroscience and Experimental Therapeutics	CLIP antagonism improves traumatic brain injury-induced cognitive behaviors and meningeal macrophages in a sex-dependent manner

20	<b>Dr. Hongying Wang</b> Nutrition	Uncover the Profile of Neuroinflammation in Aged Mice
21	<b>Dr. Aishatu Yusuf</b> Epidemiology & Biostatistics	Women’s empowerment and Sexual Reproductive Health among Nigerian women
22	<b>Dr. Mohammad Zulkifli</b> Biochemistry & Biophysics	Mechanisms of elesclomol-mediated intracellular copper delivery

## **RESOURCE TABLES**

2:30 – 3:45 p.m.

<b>Career Center</b> Marilyn Yeager	<b>International Student Services</b> Samantha Clements
<b>High-Performance Research Computing (HPRC)</b> Lisa Perez	<b>Texas A&amp;M University Libraries</b> Sheila Green
<b>Core Facilities</b> Ashlyn Montgomery	<b>Texas A&amp;M University Postdoctoral Association (PDA)</b> Tyler Raszick
<b>School of Veterinary Medicine and Biomedical Sciences Postdoctoral Association</b> Bibiana Petri Da Silveira	<b>Health Science Center Postdoctoral Association</b> Saranya Kannan
<b>Texas A&amp;M University Office of Postdoctoral Affairs</b> Shannon Eyre	<b>Education Concierge Innovation Partners</b> Elizabeth Deuermeyer Megan Brown Ankur Dayal
<b>Office of Export Controls, Conflict of Interest, and Responsible Conduct of Research</b> Laura Cajio-Wingenbach	

## **KEYNOTE ADDRESS**

3:45 – 4:45 p.m.

### ***“Embracing Your Career Path as a Journey Rather Than a Destination”***

Dr. Tricia Serio, Senior Vice Chancellor for Academic Affairs and Provost  
University of Massachusetts Amherst

## **CLOSING REMARKS & AWARDS**

4:45 – 5:00 p.m.



TEXAS A&M UNIVERSITY  
School of Medicine



TEXAS A&M UNIVERSITY  
Division of Research



Texas A&M Engineering  
Experiment Station



TEXAS A&M UNIVERSITY  
Postdoctoral Association

TEXAS A&M  
AGRI LIFE



TEXAS A&M UNIVERSITY  
School of Veterinary Medicine  
& Biomedical Sciences