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## 03. Biology

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## 03 Biology

### **05.03.01 ~ Foraging Patterns of Carpenter Bees at Chasteberry Bushes on Lesvos (Greece)**

John Barthell - University of Central Oklahoma  
Emily Brown - University of Massachusetts at Amherst  
Amanda Fernandez - University of Maryland Baltimore County  
Erika Metzler - Salem College  
Cody Pavlick- Bloomsburg University  
Vilnery Rivera-Figuera - University of Puerto Rico at Rio Piedras  
Taylor Salaguinto - Whitman College  
Victor Gonzalez - University of Kansas  
Jose Agosto-Rivera - University of Puerto Rico at Rio Piedras  
Theodora Petanidou - University of the Aegean at Mytilene  
John Hranitz - Bloomsburg University

### **05.03.02 ~ Extent and Distribution of Ticks and Tick-Borne Pathogens in Residential and Non-Residential Sites of Edmond, Oklahoma**

Mariah Small - University of Central Oklahoma  
Robert Brennan - University of Central Oklahoma  
Sean Laverty- University of Central Oklahoma

### **05.03.03 ~ Use of a Daily Text Message to Increase Student Engagement and Retention in an Online Clinical Immunology Course**

Alexis Jones - Northeastern State University

### **05.03.04 ~ Searching for a fast, simple way to accurately measure protein concentration in colored bacterial cultural media by spectrophotometer**

Ning Wu - Southeastern Oklahoma State University  
Erika Costain - Southeastern Oklahoma State University  
Teresa Golden - Southeastern Oklahoma State University  
Brad Ludrick- Southeastern Oklahoma State University

### **05.03.05 FoxM1 Promotes Tubular Regeneration Following Acute Kidney Injury**

LaQuan Johnson - Langston University

### **05.03.06 ~ RTKACTIVATION FOLLOWING REMODELING OF THE ECM VIA HYALYRONIDASE PROMOTES AEROBIC GLYCOLYSIS**

Matthew Maxwell - Southeastern Oklahoma State University

### **05.03.07 ~ Viability of Cancerous Cells Under Low- and High-Dose Laser Irradiation**

Sana Mesiya - University of Central Oklahoma

### **05.03.09 ~ Determining conjugate diene in Sjogren's syndrome patients using spectrophotometry**

Huyen Tran - University of Central Oklahoma

**05.03.10 ~ Oxidative damage in Sjogren's syndrome patients using ELISA assays**  
Huyen Tran - University of Central Oklahoma

**05.03.11 ~ Modified Early Obstetric Warning System**  
Melissa Bell - Northwestern State University  
Kimberly McKinney- Northwestern State University

**05.03.12 ~ Development of a microfluidic immunological assay for the detection and identification of Bluetongue virus and Enzootic hemorrhagic disease virus induced antibodies in serum.**  
MaryTappert- University of Central Oklahoma  
Hope Ogbeide - University of Central Oklahoma  
John Bowen - University of Central Oklahoma  
Robert Brennan - University of Central Oklahoma

**05.03.13 ~ Southeastern Oklahoma State University undergraduate OK-LSAMP-scholars participated in the NSF-supported summer international research training program in Beijing, China**  
Lindsay Perez - Southeastern Oklahoma State University  
Brianna Cole - Southeastern Oklahoma State University  
Erika Costain - Southeastern Oklahoma State University  
Brad Ludrick- Southeastern Oklahoma State University  
Teresa Golden - Southeastern Oklahoma State University  
Ning Wu - Southeastern Oklahoma State University

**05.03.14 ~ Cloning and Over-Expression of a Novel Thermophilic Nuclease From Sulfurihydrogenibium Azorense**  
Abigail Trejo - Southeastern Oklahoma State University  
Amy Grunden - North Carolina State University  
Vijay Somalinga - Southeastern Oklahoma State University

**05.03.15 ~ Predation Preference of Toxorhynchites rutilus septentrionalis on Two Primary West Nile Vectors in Oklahoma**  
Daniel Marshall - University of Central Oklahoma

**05.03.16 ~ Mars Regolith Simulant Grow Project**  
Dustin Mullings - Tulsa Community College

**05.03.17 ~ Genetic Effects of Caffeine Treatments on Dupuytren's Contracture Cells in a High-Tension Environment**  
Sarah Olson - University of Central Oklahoma  
Mel Vaughan - University of Central Oklahoma  
Dr. Steven Karpowicz - University of Central Oklahoma

**05.03.18 ~ Serologic Evidence of Viral Reactivation and Increased Disease Activity in Patients With Systemic Lupus Erythematosus**

Rebecca Wood - Oklahoma Christian University  
Lauren Guthridge - Oklahoma State University  
Emma Thurmond - Oklahoma Medical Research Foundation  
Carla Guthridge - Oklahoma Medical Research Foundation  
Hua Chen - Oklahoma Medical Research Foundation  
Susan Macwana - Oklahoma Medical Research Foundation  
Joel Guthridge - Oklahoma Medical Research Foundation  
Judith James - Oklahoma Medical Research Foundation  
Rufei Lu - Oklahoma Medical Research Foundation  
Wade deJager - Oklahoma Medical Research Foundation  
Cristina Arriens - Oklahoma Medical Research Foundation  
Eliza Chakravarty- Oklahoma Medical Research Foundation  
Katherine Thanou - Oklahoma Medical Research Foundation  
Joan Merrill - Oklahoma Medical Research Foundation

**05.03.19 ~ Overexpression of YAP1-TFE3/FAM118B Fusion Genes**

Casey Love - Southeastern Oklahoma State University

**05.03.20 ~ Genetic structure and the potential for hybridization in populations of *Peromyscus* spp. of plateau regions in western Oklahoma**

Sarah Vrla - University of Central Oklahoma  
Michelle Haynie - University of Central Oklahoma

**05.03.21 ~ The Prevalence of *Trypanosoma cruzi* in Mexican Free-Tailed Bats (*Tadarida brasiliensis*) at Three Maternity Roosts in Oklahoma**

Matthew Nichols - University of Central Oklahoma  
Wendy Monterroso - University of Central Oklahoma  
Wayne Lord - University of Central Oklahoma  
Robert Brennan - University of Central Oklahoma  
Victoria Jackson - University of Central Oklahoma  
Michelle Haynie - University of Central Oklahoma

**05.03.22 ~ An Assessment of Copper in High-Touch Areas for use in A Pharmacy's Cleanroom**

Paul Olson - University of Central Oklahoma  
David Freeman - University of Central Oklahoma

**05.03.23 ~ Hunting for Viruses: Protocols for the Isolation, Enumeration, and Characterization of Soil Bacteriophages**

Paul Olson - University of Central Oklahoma  
Alma Marquez - University of Central Oklahoma

**05.03.24 ~ Community-Level Antibiotic Profiling and Resistance of Microorganisms in Oklahoma Soils**

Paul Olson - University of Central Oklahoma

David Freeman - University of Central Oklahoma  
Luis Frias - University of Central Oklahoma  
Alma Marquez - University of Central Oklahoma

**05.03.25 ~ Antimicrobial Activity of Silver Nanoparticles Against Pathogenic Acinetobacter baumannii**

Paul Olson - University of Central Oklahoma  
Dana Khdr Sabir - Charmo University, Iraqi Kurdistan

**05.03.26 ~ Virology SEA-PHAGE Research Phage-Busephilis**

Philip Karanja - University of Central Oklahoma

**05.03.30 ~ Pick your poison: sublethal effects of pesticides on amphipod life history traits**

Lindsey Hendricks - Southwestern Oklahoma State University  
Rickey Cothran - Southwestern Oklahoma State University

**05.03.31 ~ Using Molecular Markers to Assess Contact Zones and Boundary Lines of Cryptic Species (Geomys) in Oklahoma**

Michelle Haynie - University of Central Oklahoma  
Cristina Coffman - University of Central Oklahoma

**05.03.32 ~ Intensity Matters: Perineuronal Nets Remodeling in Nalozone-Percipitated Morphine Withdrawal on Female Adolescent**

Ashley Brown - Tulsa Community College

**05.03.33 ~ Analysis of Proliferation in Phenylalanine, Retinoic Acid, and 4-diethylaminobenzaldehyde Treated Cells**

Kayley Pate - University of Central Oklahoma  
Nikki Seagraves - University of Central Oklahoma

**05.03.34 ~ The Effects of Phenylalanine, Retinoic Acid, and Diethylaminobenzaldehyde on Cell Migration**

McKayla Muse - University of Central Oklahoma  
Nikki Seagraves - University of Central Oklahoma  
Gabriel Rucci - University of Central Oklahoma

**05.03.35 ~ Overexpression of Hydrophobins in the Fungal Cell Factory Aspergillus nidulans**

Caleb Alexander - Oklahoma State University

**05.03.36 ~ The effects of e-juice on CHO cells**

Ayla Hughes - Tulsa Community College  
Steven Grace - Tulsa Community College

**05.03.37 ~ Isolation and Characterization of Bacteriophage "Sasian" from Host *Microbacterium foliorum***

Haris Zafar - University of Central Oklahoma  
Sze Hoe Sea - University of Central Oklahoma  
Hari Kotturi - University of Central Oklahoma

**05.03.38 ~ Detecting Historic Disturbance Regimes in an Oak-Hickory Forest at *Hottonia* Bottoms Nature Preserve**

Justin Cheek - University of Central Oklahoma  
Chad King - University of Central Oklahoma

**05.03.39 ~ Evaluation of the Blue River for Presence of *Campylobacter jejuni* Gunner Parent and April Nesbit**

Gunner Parent - East Central University

**05.03.40 ~ Cilia-driven Cellular Diffusion and Biomixing at Different Viscosities**

Oswah Cheema - University of Central Oklahoma  
Kara Clark - University of Central Oklahoma  
Gang Xu - University of Central Oklahoma

**05.03.42 ~ Redefining HTLV and Host Protein-Promoter Interactions in Magnetic Promoter Pull-Down Assays**

Conner Anderson - East Central University  
Alisha Howard - East Central University

**05.03.45 ~ YfaX and YggD protein function on sugar metabolism**

Aljan Ranjit - East Central University

**05.03.48 ~ ID biases in Citizen-Science Databases for Birds: Under-the-radar observations.**

Joseph Grzybowski - University of Central Oklahoma

**05.03.49 ~ Effects of bacterial secreted products on fibroblast lattice height and correlated contraction**

Pratiksha Kshetri - University of Central Oklahoma  
Robert Brennan - University of Central Oklahoma  
Mel Vaughan - University of Central Oklahoma

**05.03.50 ~ AEBSF inhibits adipogenesis and reduces fly body fat**

Jin Seo - Rogers State University  
William Redmond - Rogers State University  
Morgan Youngblood - Rogers State University

**05.03.51 ~ Imported species of pathogenic *Fusarium* species from Central America differ from *Fusarium* species in Oklahoma**

Cierra Soden - East Central University

**05.03.52 Bacteriophage therapy against E.coli**

Eric Paul - Southwestern Oklahoma State University  
Brittney Le - Southwestern Oklahoma State University

**05.03.53 ~ Telomere Length Predicts Life History Trade-Offs in Wild Female Tree Swallows (*Tachycineta bicolor*)**

Tiana Sanders - Oklahoma State University

**05.03.54 ~ Microenvironment Modulates the Phenotype of Ker-CT-Ras; Role of the Alpha-6 Integrin Response**

Zoe Andrews - University of Central Oklahoma  
Mel Vaughan - University of Central Oklahoma

**05.03.55 ~ Silverleaf: a New Mycobacteriophage Isolated and Sequenced from Oklahoma Soil**

Raistland Valenzuela - University of Central Oklahoma  
Hari Kotturi - University of Central Oklahoma

**05.03.56 ~ Miaurora: New Microbacteriophage Isolated from Oklahoma Soil**

Micah Byrne - University of Central Oklahoma  
Zachary Stone - University of Central Oklahoma  
Hari Kotturi - University of Central Oklahoma

**05.03.57 ~ Antimicrobial Properties of Novel Silver(!) Cyanoximates**

Erin Gallaway- Oklahoma State University  
Marianna Patrauchan - Oklahoma State University  
Treyon Grant - Oklahoma State University  
Snow Popis - Missouri State  
Nikolay Gerasimchuck - Missouri State

**05.03.58 ~ Glycated Chitosan Inhibits Fibroblasts-mediated Compaction and Contraction of Collagen Lattices**

Tu Doan - University of Central Oklahoma  
Mel Vaughan - University of Central Oklahoma  
Gang Xu - University of Central Oklahoma  
Zheng Yie Yap - University of Central Oklahoma

**05.03.59 ~ Using Microwaves for Organic Synthesis of Esters in Undergraduate Organic labs**

Tolulade O. Adenuga Adenuga - Cameron University  
Elizabeth Nalley- Cameron University

**05.03.60 Antimicrobial properties of cinnamon oil nanoemulsion on isolates of *Acinetobacter baumannii*.**

Taylor Jones - University of Central Oklahoma

**05.03.61 DNA Extraction from Dried Testudine**

Mariah Ewy- East Central University

**05.03.62 ~ Analysis of the *C. burnetii* Type 4B Secretion System Homolog DotA During Infection and In Vitro Growth**

Alicia Aguilar - Oklahoma State University

**05.03.63 ~ Oka'Yanhli Nature Preserve Baseline Mammal Survey**

Wendy Monterroso - University of Central Oklahoma

Victoria Jackson - University of Central Oklahoma