Annual Meeting of Arizona Nevada Academy of Science
2023
Presentation Preview

Oral Presentations Session 1 – Dobson Theater, Mesa Art Center

8:00AM-8:15AM
ARBOVIRAL DISEASE, LANDSCAPE DESIGN, AND HUMAN DEMOGRAPHICS
Dawn H. Gouge (University of Arizona, Tucson, AZ)

8:15AM-8:30AM
NEUROANATOMY AND INNER EAR OF THE FOSSIL BAENID TURTLE *PLESIOBAENA ANTIQUA* FROM THE CAMPANIAN JUDITH RIVER FORMATION
Heather F. Smith (Midwestern University, Glendale, AZ), Brent Adrian (Arizona State University, Tempe, AZ), and Madison Berg (Midwestern University, Glendale, AZ)

8:30AM-8:45AM
***FOSSIL GIRAFFIDAE FROM THE EARLY MIOCENE HAZEVA FORMATION, NEGEV DESERT, ISRAEL AND THE MIGRATION PATH THROUGH THE LEVANTINE CORRIDOR**
Sage Cromwell, Rivka Rabinovish, Rani Calvo, Aryeh Grossman (Midwestern University, Glendale, AZ)

8:45AM-9:00AM
LIFE CYCLE AND REARING CONDITIONS OF *DERMESTUS MARMORATUS
Barry Cromer III, Andrew Meeds, Lauren M. Weidner (Arizona State University, Glendale, AZ)

9:00AM-9:15AM
***RAPAMYCIN'S ROLE IN PROLONGING OVARIAN REPRODUCTIVE LIFESPAN: A NON-HUMAN PRIMATE STUDY**
Gaurika Shah, Masara Azooz, Suzanne Dietrich, Karen. H. Watanabe (Arizona State University, Glendale, AZ), Mary Zelinski (Oregon Health & Science University, Beaverton, OR), James Sluka (Indiana University, Bloomington, IN)

Posters – Arizona Museum of Natural History, Auditorium, 9:30-11:00 am

***USING A HANDHELD BAT DETECTOR TO DETECT ULTRASONIC SOUNDS FROM PLANTS**
Alex Shaw, Josh James, Evelyn Rivera (Phoenix College, Phoenix, AZ)

***PREVENTATIVE CONSERVATION OF THE ARIZONA MUSEUM OF NATURAL HISTORY'S TEXTILE COLLECTION**
Samantha Bomkamp (Arizona Museum of Natural History, Mesa, AZ)

***DESIGNING AND EXPLORING THE STRUCTURE OF LAUNCH VEHICLES TO CREATE OPTIMAL THEORETICAL AND SMALL-SCALE EXPERIMENTAL MODELS**
Cole J. Errico and Dr. Timothy Takahashi (Arizona State University, Tempe, AZ)

***A COMPARISON OF BITE FORCE ESTIMATES FOR PACIFIC SLEEPER SHARKS, SOMNIOSUS PACIFICUS, WITH OTHER ELASMOBRANCH SPECIES**
Sarika R. Sawant, Ana B. Ronan, Lara A. Ferry (Arizona State University, Glendale, AZ)

***COMPARING THE MICROBIAL DIVERSITY OF MALES AND FEMALES OF THAMNOPHIS SIRTALIS**
Alvaro Rodriguez Mendoza[1], Francesca De Martini[1], Rocky Parker[2], Emily Thompson[2], Krista Coppage[2], Desiree Edemba[2], Ray Enke[2], and Morgan Steffen[2] ([1]Mesa Community College, Mesa, AZ; [2]James Madison University, Harrisonburg, VA)

***THE ROLE OF A SELECTIVE VITAMIN D RECEPTOR ANTAGONIST IN TARGETING MAJOR CANCER SIGNALING PATHWAYS**
Jennifer Hong[1], Sabeeha Reshi[1], Rakesh K. Singh[2], Richard G. Moore[2] and Peter W. Jurutka[1,3] ([1]Arizona State University, Glendale, AZ; [2]University of Rochester Medical Center, Rochester, NY; [3]University of Arizona College of Medicine, Phoenix, AZ)

***BITS AND BYTES: PASSIVE NETWORK DISCOVERY: WHAT CAN BE DERIVED FROM YOUR WIRELESS NETWORK ACTIVITY**
Douglas Applegate and Adam Keech (Arizona State University, Tempe, AZ)

***SYNERGISM OF VITAMIN D AND NOVEL REXINOIDS FOR THE PREVENTION AND TREATMENT OF MAJOR HUMAN DISEASES**
Mobin Emran Doost[1], Jennifer Hong[1], Carl E. Wagner[1], Pamela A. Marshall[1] and Peter W. Jurutka[1,2] ([1]Arizona State University, Glendale, AZ; [2]University of Arizona, College of Medicine, Phoenix, AZ)

***THE EFFECTS OF COMMON HOUSEHOLD CLEANERS ON *DROSOPHILA MELANOGASTER* DEVELOPMENT**
Isabella Hernandez, Stephen Johnston, and Jennifer F. Hackney Price (Arizona State University, Glendale, AZ)

THE INVOLVEMENT OF TESTICULAR GENES DURING WING DEVELOPMENT OF THE FRUIT FLY, *DROSOPHILA MELANOGASTER
Safoora Syeda, Zollee Williams, and Jennifer F. Hackney Price (Arizona State University, Glendale, AZ)

***DEVELOPMENT OF NOVEL DRUGS TO COMBAT ALZHEIMER'S DISEASE**
Michael A. Sausedo[1], Carl E. Wagner[1], Pamela A. Marshall[1] and Peter W. Jurutka[1,2] ([1]Arizona State University, Glendale, AZ; [2]University of Arizona, College of Medicine, Phoenix, AZ)

IT TOOK MUSSELS: ANDEAN-SIZED MOUNTAINS IN CAMPANIAN ARIZONA BASED ON UNIONID SHELL STABLE OXYGEN RATIOS
Grant S. Boardman (Estrella Mountain Community College, Avondale, AZ)

***ECDYSONE'S ROLE AS A STRESS HORMONE IN DROSOPHILA MELANOGASTER**
Cristina L. Martalogu and Jennifer F. Hackney Price (Arizona State University, Glendale, AZ)

***HOW DOES A DIFFERENCE IN VECTOR AND BACTERIAL STRAIN AFFECT PYOMELANIN PRODUCTION?**
Preeti Kakade[1,2], Madison Lanes[1], and Dhara D. Shah[1,2] ([1]Arizona State University, Tempe, AZ; [2]Arizona State University - West Campus, Glendale, AZ)

***FUNCTIONAL ANALYSIS OF HUMAN SULFOTRANSFERASES WITH TYROSINE METABOLITES AND DERIVATIVES**
Lauryn Langford[1], Rylee Close[1],and Dhara D. Shah[1,2] ([1]Arizona State University, Tempe, AZ; [2]Arizona State University - West Campus, Glendale, AZ)

WHOLE GENOME SEQUENCE OF *DEINOCOCCUS AQUATICUS* TYPE STRAIN PB314, A NON-EXTREMOPHILE REPRESENTATIVE OF THE GENUS *DEINOCOCCUS
Chad M. Albert, Jonathan T.E. Hill, Leilani S. Boren, Stacy Scholz-Ng, Nahid Fatema, Ryan A. Grosso, Erica Soboslay, James M. Tuohy (Glendale Community College, Glendale, AZ)

GUT MICROBIOTA OF THE *CASTOR CANDENSIS* IN SAN PEDRO RIPARIAN AREA
Kari Durham, Conner Fenn, Katie Puckett, Cynthia Ruvalcaba, Auttum Smith, Ana Rivera Durazo, Isabella Jamka, Aliya Leon (Cochise College, Sierra Vista, AZ)

USE OF THE CAROTENOID SYNTHESIS PATHWAY GENE PHYTOENE DESATURASE TO DETERMINE PHYLOGENETIC RELATIONSHIPS IN THE GENUS *DEINOCOCCUS
Jonathan T.E. Hill, Chad M. Albert, Marisa Ostos, James M. Tuohy (Glendale Community College, Glendale, AZ)

A COMPARATIVE STUDY OF RAPID AND ECONOMIC METHODS OF DNA EXTRACTION FROM THE PLAQUE FORMING SPECIES, *DEINOCOCCUS SONORENSIS
Leilani S. Boren, Ryan A. Grosso, Chad M. Albert, Jonathan T.E. Hill, Rhiannon F. Giesegh, Aland A. Harsen, Deja Vu R. Birney, Malica E. Pena Sanchez, Alex Cox, James M. Tuohy (Glendale Community College, Glendale, AZ)

***ISOLATION OF NOVEL ANTIBIOTIC-PRODUCING BACTERIA FROM A BOTANICAL GARDEN IN THE DESERT SOUTHWEST**
Hannah Harvey, Luis Saucedo, Lindsay Duran, Reilly Bendon, Maria Camargo-Arredondo, Iliian Rico-Chavez, Maria Soto Fuentes, Jessica Mondragon and Robin Cotter (Phoenix College, Phoenix, AZ)

***NEXT GENERATION NOVEL REXINOIDS AS POTENTIAL THERAPEUTIC AGENTS FOR PREVENTION AND TREATMENT OF CANCER AND ALZHEIMER'S DISEASE**

Flavio F. Beas[1], Sabeeha M. Reshi[1], Carl E. Wagner[1], Pamela A. Marshall[1] and Peter W. Jurutka[1,2] ([1]Arizona State University, Phoenix, AZ; [2]University of Arizona, College of Medicine, Phoenix, AZ)

Oral Presentations Session 2 – Dobson Theater, Mesa Art Center

11:15AM-11:30AM

***A COMPUTATIONAL AND MATHEMATICAL ANALYSIS OF HIDDEN FIGURES**

Brianna Jones, Cassandra Nevarez, Jonathan Salazar (Estrella Mountain Community College, Phoenix, AZ)

11:30AM-11:45PM

SOUTHERN ARIZONA'S SHELLENBERGER CANYON FORMATION CRETACEOUS SAUROPOD REMAINS REVISITED

Brian Curtice (Arizona Museum of Natural History, Mesa, AZ), Robert McCord (Arizona Museum of Natural History), Ray Wilhite (Auburn University), Gavin McCullough (Arizona Museum of Natural History)

11:45AM-12:00PM

***THE CERVICAL-DORSAL VERTEBRAE TRANSITION IN *STEGOSAURUS STENOPS*: A COMPLEX PROBLEM EXEMPLIFIED BY THE UNRELIABILITY OF SKELETAL DISPLAY MOUNTS**

Brandon Nguyen (Arizona State University, Tempe, AZ)

12:00PM-12:15PM

TRACE FOSSILS FROM THE UPPER CRETACEOUS FORT CRITTENDEN FORMATION, ARIZONA, USA

Robert McCord, Gavin McCullough (Arizona Museum of Natural History, Mesa, AZ)

12:15PM-12:30PM

RAISING ARIZONA: THE UPPER CRETACEOUS (CAMPANIAN) FORT CRITTENDEN FORMATION, SOUTHERN ARIZONA, USA, YIELDS THE STATE'S FIRST REPORTED ANKYLOSAURID DINOSAUR

Gavin McCullough, Robert McCord (Arizona Museum of Natural History, Mesa, AZ)