

**POSTER SESSIONS/COFFEE BREAK
SESSION I 8:15-9:00
ROOM: LA SALA FOYER/LOBBY UCB**

CHAIRPERSONS: Jennifer Hackney and Robin Cotter

#101

DIFFERENTIAL EXPRESSION OF GENES BETWEEN CYSTIC FIBROSIS PATIENTS AND HEALTHY INDIVIDUALS

Ainsley Atherton, Mariah Beltran, Jesse Carter, Jianing Zhang (Arizona State University, Tempe, AZ)

#102

PROTECTIVE EFFECTS OF NORPSILOPIN AGAINST APOPTOSIS IN NEUROBLASTOMA CELLS: A WESTERN BLOT ANALYSIS

Megan Goroski, Patrick Basilio, Jazmine Macias, Logan Fuchsberger, Ekleshia Yilma, Maurice Jabbour, Randall Ordovich-Clarkson (Grand Canyon University, Phoenix, AZ)

#103

CREATING PATIENT-SPECIFIC MODELS FOR FLUOROSCOPY SKIN DOSE ESTIMATION

Gabriel E. Del Valle¹, Jorge Berlanga², Gael Martinez², Sharon Stefan², Wolfgang Stefan³, Saman Jirjies³, and William F Sensakovic³ (Arizona State University, Tempe, AZ¹; Estrella Mountain Community College, Avondale, AZ²; Mayo Clinic, Phoenix, AZ)

#104

BACTERIOPHAGES IN THE URBAN SOIL MICROBIOME AT MCC

Hannah Cook, Julia Wright, TJ Vange, Shelby Delma, Viknesh Sivanathan, Bryan Avina and Francesca De Martini (Mesa Community College, Mesa, AZ)

#105

A COMPARATIVE STUDY OF TEMOZOLOMIDE AND WITHA FERIN ON THE MEK PROTEIN IN PEDIATRIC ANAPLASTIC ASTROCYTOMA

Conner DeJesus and Madhavi Chakravadhanula (Grand Canyon University, Phoenix, AZ)

#106

CREATING PATIENT-SPECIFIC MODELS FOR FLUOROSCOPY SKIN DOSE ESTIMATION

Gabriel E. Del Valle¹, Jorge Berlanga², Gael Martinez², Sharon Stefan², Wolfgang Stefan³, Saman Jirjies³, and William F Sensakovic³ (Arizona State University, Tempe, AZ¹; Estrella Mountain Community College, Avondale, AZ²; Mayo Clinic, Phoenix, AZ)

#107

THE DEGREE OF BACTERIAL UV RADIATION RESISTANCE OBSERVED VARIES ACCORDING TO THE MEDIA AT THE POINT OF EXPOSURE

Riya Dhaliwal, Rejul Guru, Violette Soto, Logan Young, Evan Russell, Alex Hugenberg-Cox, Sudeep Vattikuti, Chad Albert, Jonathan Hill and James Tuohy (Glendale Community College, Glendale, AZ)

#108

EFFECT OF TEMPERATURE AND SALINITY ON GROWTH OF *E.COLI* AND *STAPH AUREUS* UNDER SIMULATED CLIMATIC CONDITIONS OF SONORAN DESERT ECOSYSTEM

Mae Dieguez, Schelby Greene and Demelash Arede (Ottawa, University, Surprise, AZ)

#109

EFFECTS OF α -CEMBRENEDIOL ON THE MAPK PATHWAY IN PEDIATRIC ANAPLASTIC ASTROCYTOMA

Emily Flammang, Raylene D Silva, and Dr. Madhavi Chakravadhanula (Grand Canyon University, Phoenix, AZ)

#110

FRACTAL APPLICATION TO PERCOLATION THEORY

Filippo Posta, Santiago Flores, Tony Subia, Omar Oregon (Phoenix College, Phoenix, AZ)

#111

THE POO-RIFIER: EXTRACTING POTABLE WATER FOR DEVELOPING WATER-STRESSED AREAS

Mariza Fregoso Alvarez and Keisha Orozco (Phoenix Union Bioscience High School, Phoenix, AZ)

#112

DISCOVERING THE BACTERIOPHAGES OF THE SOUTHWEST

Alessia Gallina*, Khiana Michelle*, Kamryn Mallory*, Keziah Miner*, Bryan Avina*, Viknesh Sivanathan**, Francesca De Martini* (*Mesa Community College, **Howard Hughes Medical Institute, University of Pittsburgh, PA)

#113

ISOLATION AND IDENTIFICATION OF ANTIBIOTIC-PRODUCING BACTERIA FROM URBAN AND SUBURBAN SOIL SAMPLE

Alecsara Powell and Kassandra Garcia (Estrella Mountain Community College, Avondale, AZ)

#114

METHOD FOR SELECTIVE SCALING OF NON-BONDING INTERACTIONS FOR A SYSTEM OF MORE THAN THREE INDEX GROUPS IN GROMACS

Ryan A. Grosso, Leilani S. Boren, Chad M. Albert, Sudeep Vattikuti, Jonathan T.E. Hill, James M. Tuohy (Glendale Community College, Glendale, AZ)

#115

ELEMENTAL SOIL ANALYSIS IN A COMMUNITY GARDEN

Aahlad Gummadi, Cole Kuls, Amber Nelson, Han Truong, Carly Ziegenhagen, Ken G. Sweat (Arizona State University, Glendale, AZ)

#116

DYNAMICS OF PATHOGENS TRANSMISSION FROM MACROALGAE TO CORALS: A MATHEMATICAL MODELING APPROACH

Susmita Halder and Joydeb Bhattacharyya (Arizona State University, Tempe, AZ)

#117

DIETARY EFFECTS OF MEDICINAL MUSHROOM SUPPLEMENTATION ON LOCOMOTION IN OREGON-R *DROSOPHILA MELANOGASTER*

Aliya Hashim and Jennifer Hackney (Arizona State University, Glendale, AZ)

#118

REXINOIDS: EMERGING THERAPEUTIC AGENTS IN CANCER TREATMENT

Umm-E-Hani Khan¹, Flavio F. Beas¹, Sabeeha M. Reshi¹, Carl E. Wagner¹, Pamela A. Marshall¹ and Peter W. Jurutka^{1,2} (¹Arizona State University, Phoenix, AZ and ²University of Arizona, Phoenix, AZ)

#119

CURCUMIN'S ROLE IN MITIGATING OXIDATIVE STRESS AND INFLAMMATION IN A DIABETES-LINKED ALZHEIMER'S DISEASE MODEL

Evan Litke, Logan Morris, and Hikmet Nural-Guvener (Grand Canyon University, Phoenix AZ)

#120

ANALYSIS OF METABARCODING IN LETTUCE MICROBIOME FROM COMMUNITY FARMS

Saul Lopez, and Sudipta Biswas (South Mountain Community College, Phoenix, AZ)

#121

CHARACTERIZATION OF *CG34168* IN *DROSOPHILA* WINGS AND TESTES

Karah Mayer, Safoora Syeda, Zollee Williams and Jennifer Hackney (Arizona State University, Glendale, AZ)

#122

A HADROSAUR MAXILLA FROM THE LATE CRETACEOUS FORT CRITTENDEN FORMATION, SOUTHEASTERN ARIZONA, USA.

Gavin McCullough, Robert McCord, Brenden Bannon (Arizona Museum of Natural History, Mesa Community College, and Southwest Paleontological Society)

#123

INVESTIGATING BLOW FLY PREFERENCE ACROSS AGED BAITS

Gabrielle Meza, Yeilee Perez, Andrew W. Meeds, Lauren M. Weidner (Arizona State University, Glendale, AZ)

#124

OVEREXPRESSION OF ALPHA SYNUCLEIN GENE IN NEUROBLASTOMA (SH-SY5Y) CELLS TO MODEL PARKINSONS

Noah Barnes, Isaiah Phillips, Aaron Millet, Maurice Jabbour, Randall DeSouza Ordovich Clarkson
(Grand Canyon University, Phoenix, AZ)

#125

UNVEILING THE MEDICINAL PROPERTIES OF *PINUS HAPENSIS* FROM ARIZONA: AN ALTERNATIVE STRATEGY TO TREAT INFECTIONS AND INFLAMMATION

Jessica Neamtu and Daisy Savarirajan, (Grand Canyon University, Phoenix, AZ)

#126

ADVANCED MULTI-GENERATIONAL BEXAROTENE ANALOGS AS POTENTIAL THERAPEUTIC INTERVENTIONS FOR CANCERS AND ALZHEIMER'S DISEASE

Quang T. Nguyen¹, Flavio F. Beas¹, Carl E. Wagner¹, Pamela A. Marshall¹ and Peter W. Jurutka^{1,2}
(¹Arizona State University, Phoenix, AZ and ²University of Arizona, Phoenix, AZ)

#127

ISOLATION AND CHARACTERIZATION OF BACTERIOPHAGES FROM ENVIRONMENTAL SOIL SAMPLES

Anna Portillo, Myriam Hernandez, Orlando Estrada, Michael Ellis and Saroj Chirravuri
(Gateway Community College, Phoenix, AZ)

#128

ANTIBIOTIC PRODUCING BACTERIA

Alecsara Powell (Estrella Mountain Community College, Avondale, AZ)

#129

CULTIVATION OF OXALOTROPHIC BACTERIA FROM DESERT SOILS

Christine Quan, Alexander Sonke, and Dr. Elizabeth Trembath-Reichert (Arizona State University, Tempe, AZ)

#130

EFFECTS OF HEAVY METALS ON BMP4 IN FROGS (*LITHOBATES HECKSHERI*)

Rafael A. Rios¹, Sofia Barajas¹, Matthew Gross¹, John G. Phillips², Christopher P. Heesy³, Leigha M. Lynch³ (¹Midwestern University, Glendale, AZ, ²Valdosta State University, Valdosta, GA ³Midwestern University, Glendale, AZ)

#131

ADVANCING ALZHEIMER'S DRUG DEVELOPMENT: NEXT STEPS IN UTILIZING APOE GENE ACTIVATION FOR TREATMENT APPROACHES

Michael A. Sausedo¹, Flavio F. Beas¹, Murad Farooqi², Carl E. Wagner¹, Pamela A. Marshall¹ and Peter W. Jurutka^{1,2} (¹Arizona State University, Glendale, AZ; ²University of Arizona, Phoenix, AZ)

#132

FOSSIL WOODLANDS OF THE LATE CRETACEOUS (CAMPANIAN) MENEFEE FORMATION, NEW MEXICO

Heather F. Smith, Brent Adrian, Benjamin F. Mohler, and Kara Kelley (Midwestern University, Glendale AZ, Arizona State University, Glendale, AZ, Arizona State University, Tempe, AZ, University of Arizona, Tucson, AZ, and Southwest Paleontological Society, Mesa, AZ)

#133

IMPACTS OF URBANIZATION ON NATIVE BEE BIODIVERSITY IN THE WESTERN UNITED STATES

Alexandra Sweet, Arella Clark, Zalli Salaiz, Samantha Castillo, Madalynn Zepp, Ethan Ramsumair, Madalyn McKee, Vu Dinh, and Jarod Raithel (Estrella Mountain Community College, Avondale, AZ)

#134

INVESTIGATING THE RELATIONSHIP BETWEEN COPPER TOLERANCE AND ANTIBIOTIC RESISTANCE IN *DEINOCOCCUS INDICUS*

Sudeep S. Vattikuti, Ryan A. Grosso, Chad M. Albert, Jonathan T.E. Hill, Leilani S. Boren, Riya Dhaliwal, and James M. Tuohy (Glendale Community College, Glendale, AZ)

#135

ASSESSING THE DECLINE OF SAGUAROS: INVESTIGATING HEALTH PATTERNS IN URBAN AND NATURAL LANDSCAPES

Erin Walsh, Daphne Weber and Chris Higgins (Arizona State University, Glendale, AZ)

#136

AGNS AS UHECR ACCELERATORS

Liam Whelan (Paradise Valley High School, Phoenix, AZ)

#137

A NEW BRAIN COMPUTER INTERFACE-DRIVEN FOREARM EXOSKELETON FOR STROKE REHABILITATION

Brad Wu (Arizona College Prep High School, Chandler, AZ)

SESSION II 10:45-11:30
ROOM: LA SALA FOYER/LOBBY UCB

CHAIRPERSONS: Jennifer Hackney and Robin Cotter

#201

FIRST ANNUAL FIELD REPORT OF THE MENELEE PALEONTOLOGICAL PROJECT FIELD EXPEDITIONS IN 2024

Brent Adrian (Arizona State University, Tempe, AZ), Heather F. Smith (Arizona State University, Midwestern University, Glendale, AZ), Benjamin F. Mohler (University of Arizona, Tucson, AZ), Harrison Brand (Southwest Paleontological Society, Mesa, AZ), Merlyn Heck (Southwest Paleontological Society, Mesa, AZ), Emelia Dolson (Southwest Paleontological Society, Mesa, AZ), F. Joe Reavis (Southwest Paleontological Society, Mesa, AZ), Tyler Greaves (Southwest Paleontological Society, Mesa, AZ)

#202

USING MACHINE LEARNING FOR THE CLASSIFICATION OF BRAIN TUMORS

Nadir Babiker, Briana Mariah Gomez, Jesus Martinez, Juan Armando Vidaurrazaga Chavez, Frank S. Marfai (Phoenix College, Phoenix, AZ)

#203

CHANGING AIR QUALITY AND ITS ASSOCIATION WITH RESPIRATORY ILLNESSES IN PHOENIX METROPOLITAN AREA, IN THE STATE OF ARIZONA

Bentley, Brooke Elizabeth and Demelash Areda (Ottawa University, Surprise, AZ)

#204

THE DISTINCTIVE BIOFILM OF *DEINOCOCCUS SONORENSIS* KR-87^T; A GENOMIC AND PHYSIOLOGICAL STUDY

Leilani Boren, Ryan Grosso, Alex Hugenburg-Cox, Jonathan Hill, Chad Albert, Emerson Turensky, Madison Cook, Vanshika Mohapatra, Madison Jackson, James Tuohy (Glendale Community College, Glendale, AZ)

#205

IDENTIFICATION OF BURROWING OWLS

Brian Bovee, Jade Huynh, and Rachel Smith (Estrella Mountain Community College, Avondale, AZ)

#206

CAMPANIAN DINOSAUR DIVERSITY IN WESTERN NORTH AMERICA AND ITS IMPLICATIONS FOR THE MENELEE PALEONTOLOGICAL PROJECT

Harrison Brand (Southwest Paleontological Society, Mesa, AZ), Jessie R. Silverstein (Southwest Paleontological Society, Mesa, AZ), Brent Adrian (Arizona State University, Tempe, AZ), Heather F. Smith (Arizona State University, Midwestern University, Glendale, AZ), Benjamin F. Mohler (University of Arizona, Tucson, AZ)

#207

OPTIMIZING IMMUNOCYTOCHEMISTRY PROTOCOLS FOR PROTEIN VISUALIZATION IN SH-SY5Y CELLS: A FOUNDATION FOR OXIDATIVE STUDIES IN ALZHEIMER'S DISEASE MODELS

Sophie Bricker, Melanie Ciobanu, Mohammed Ramadan, Sherlin Moses and Hikmet Guvener (Grand Canyon University, Phoenix, AZ)

#208

FINDING THE BLACK WIDOW SPIDER HALLOWEEN GENES

Andrew Burgess and Jennifer Hackney (Arizona State University, Glendale AZ)

#209

URBAN MICROBIOME SOIL SAMPLING ON MESA COMMUNITY COLLEGE SOUTHERN & DOBSON CAMPUS

Atria Coffinger, Jessica Antonio, Julia Wright, Francesca De Martini, and Aurelie Buffin (Mesa Community College, Mesa, AZ)

#210

SYNERGISTIC EFFECTS OF CYANIDIN CHLORIDE AND WITHA FERIN A ON PEDIATRIC ANAPLASTIC ASTROCYTOMA

Morgan Dirks and Madhavi Chakravadhanula (Grand Canyon University, Phoenix AZ)

#211

DISCOVERY AND ISOLATION OF A NOVEL BACTERIOPHAGE IN ARIZONA

Jake Eggen*, Ameliz Price-Dominguez*, Jay Mathur*, Ky Aquiningoc*, Subodh Balenalli*, Bryan Avina*, Francesca De Martini* and Viknesh Sivanathan**(* Mesa Community College, Mesa, AZ, ** Howard Hughes Medical Institute, Chevy Chase, MD)

#212

TEMPERATURE DEPENDENCE OF WHOLE FRUIT IMPEDANCE

Hussein El Ghandour, Daniel Angulo, Natalie Martalogu, Lee Ann Stapleton and Francisco J. Solis (Arizona State University, Glendale, AZ)

#213

ADVANCING RXR-BASED CANCER THERAPEUTICS: ENHANCED TUMOR SUPPRESSOR ACTIVATION BY NOVEL REXINOIDS

Murad Farooqi¹, Flavio F. Beas², Quang T. Nguyen², Carl E. Wagner², Pamela A. Marshall² and Peter W. Jurutka^{1,2} (¹University of Arizona, Phoenix, AZ, ²Arizona State University, Phoenix, AZ)

#214

P-ADIC MULTIFRAMELET SETS

Debasis Haldar (National Institute of Technology Rourkela, Odisha, India)

#215

DIFFERENCES OF TRIFLUOROACETIC ACID CONCENTRATIONS IN VARIOUS CONSUMER FOODS

A. Hawley, M. Winne and T. Cahill (Arizona State University, Glendale, AZ)

#216

DATA ANALYTICS WITH MEDICAL IMAGING

Alanys Hernandez Cruz, Marlah E. Garcia, Wolfgang Stefan, Jeremiah Sanders, Jirjies Saman Sharon Stefan and Meha Trivedi (Estrella Mountain Community College, Avondale, AZ)

#217

***CAMELLIA SINENSIS* EXTRACT POTENTIALLY ALLEVIATES ALLERGIC RHINITIS AND INHIBITS *MYCOBACTERIUM* SPS.**

Maxwell Hinton, Wesley Hinton, and Daisy Savarirajan, of Natural Sciences (Grand Canyon University, Phoenix, AZ)

#218

DRZ RESTORATION PROJECT

Zainab Kadhim, Peter Khiev and Ken Sweat (Arizona State University, Glendale AZ)

#219

THE EFFECTS OF CELLULAR ANTI-OXIDATION PATHWAYS ON ORAL HEALTH

Ashley Livingston¹, Carl E. Wagner¹, Pamela A. Marshall¹ and Peter W. Jurutka^{1,2} (¹Arizona State University, Phoenix, AZ and ²University of Arizona College of Medicine, Phoenix, AZ)

#220

A TALE OF ONE TURTLE: *ADOCUS* AND *BASILEMYS* IN THE CRETACEOUS FORT CRITTENDEN FORMATION OF SOUTHEASTERN ARIZONA

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

#221

THE EFFECT OF DECOMPOSITION ON RECOVERY OF DNA EVIDENCE AND ITS SUBSEQUENT IMPACT ON IDENTIFICATION

Kathryn Melançon, Katelyn L. Bolhofner and Jonathan J. Parrott (Arizona State University, Glendale, AZ)

#222

USING THE TYPE IV SECRETION SYSTEM TO PREDICT THE POTENTIAL TRANSFORMABILITY OF *DEINOCOCCUS* SPECIES

Vanshika Mohapatra, Leilani S. Boren, Alaa N. Al-shawi, Jo A. Martin, Nancy Z. Azaouneh, Jonathan T.E. Hill, Chad C. Albert, and James M. Tuohy (Glendale Community College, Glendale, AZ)

#223

VALIDATING HISTOLOGY METADATA FOR MOTHER

Maxx A. Mudd, Suzanne W. Dietrich, Karen H. Watanabe (Arizona State University, Glendale AZ)

#224

NOTES ON THE GROUND-DWELLING ARTHROPODS OF PITCAIRN ISLAND

Liliana Nemecek¹, Brenda Lupton-Christian², J. Judson Wynne^{1,3} (¹Northern Arizona University, Flagstaff, AZ, ²Office of Immigration, Government of the Pitcairn Islands; ³Center for Adaptable Western Landscapes, Northern Arizona University, Flagstaff, AZ)

#225

NATURE'S PHARMACY: EXPLORING THE ANTIOXIDANT AND ANTIMICROBIAL POTENTIAL OF EDIBLE MUSHROOMS

Maame Osei-Fordwuo, Zoe Obermuller, Annelise Scruggs, Allison Peschl, Makayla Walizer, Aaron Millett and Ramesh Velupillaimani (Grand Canyon University, Phoenix, AZ)

#226

OPTIMIZING GERMINATION IN SIX NATIVE SONORAN DESERT SPECIES

Preeti Pandey, Rhiannon Burin, Taylor Somyk and Ken Sweat (Arizona State University, Glendale, AZ)

#227

GENOTYPING OPHIOPHAGUS HANNAH (CANTOR, 1836) AND THE CONSERVATION GENETIC APPLICATIONS

Leah Ratynski (Mesa Community College, Mesa, AZ)

#228

THE EFFECTS OF CLIMATE CHANGE ON BODY SIZE AND MELANIN IN *POLYPHYLLA DIFFRACTA*

Colton Roberts-Zaffiro, Grey Gustafson and Amanda Wilson Carter (Northern Arizona University, Flagstaff, AZ)

#229

METHODOLOGICAL CONSIDERATIONS FOR THE STUDY OF TWITCH MOTILITY IN *DEINOCOCCUS*

Evan Russell¹, Nicholas Feierabend¹, Tatiana Wright¹, Logan Young¹, Riya Dhaliwal¹, Isabella Kimble¹, Violette Soto¹, Joshua Scarfo¹, Madison Jackson¹, Chad Albert¹, Jonathan Hill¹, James Tuohy¹ and Sabrina Mueller-Spitz² (¹Glendale Community College, Glendale, AZ; ²University of Wisconsin, Oshkosh, WI)

#230

APPLICATION OF BONSAI CULTIVATION TECHNIQUES FOR WATER-EFFICIENT LANDSCAPING IN THE SONORAN DESERT

Arianna Ruvalcaba and Becky Ball (Arizona State University, Glendale, AZ)

#231

SENSITIVITY ANALYSES OF A SCORING SYSTEM FOR AN ONLINE CONTRACEPTION DECISION AID

Sanyam P. Shah, Tanuj S. Shekhawat, Dongwen Wang (Arizona State University, Tempe, AZ)

#232

DEL RIO SPRINGS; AN ECOLOGICAL ANALYSIS OF ECOSYSTEM HEALTH

Lily J. Stein, Amanda Dulaney, Alea Lind, Tatiana Gomez, Carson Westman (Embry Riddle Aeronautical University, Prescott, AZ)

#233

CERAMIC ANALYSIS OF AL BALEED ARCHAEOLOGICAL SITE

Chloe Strawn and Jayden Bell (Estrella Mountain Community College, Avondale, AZ)

#234

IMPACTS OF CLIMATE CHANGE ON MELANIN AND NEAR-INFRARED REFLECTANCE ON THE WINGS OF *VANESSA CARDUI*

Ashlyn Trujillo and Amanda W. Carter (Northern Arizona University, Flagstaff, AZ)

#235

WHAT'S IN YOUR WATER?-AN INITIAL ASSESSMENT OF MACROINVERTEBRATE COMMUNITIES IN THE TRES RIOS WETLANDS

Gabriela E. Vasquez, Danielle Hirschey, Ethan Ramsumair, and Scott Milne (Estrella Mountain Community College, Avondale, AZ)

#236

BIOSIGNATURE ANALYSIS OF MIRABILITE FROM MARS-ANALOG SITES

Zollee Williams, Karena Gill and Elizabeth Trembath-Reichert (Arizona State University, Tempe, AZ)

#237

TARGETING MICROPLASTIC CONTAMINATION: ELECTROCOAGULATION AS A PROMISING SOLUTION FOR WASTEWATER TREATMENT

Jonathan Wisman, Olneya Fong, Evelyn Rivera, Cassandra Palacios, Luis Saucedo, Hannah Harvey, Marcus Reid, Chris Livingston, Joshua James, Warren Dancer and Robin Cotter (Phoenix College, Phoenix, AZ)

#238

THE EFFECT OF SALT ON BIOFILM FORMATION IN *DEINOCOCCUS GOBIIENSIS*

Logan Young, Alex Hugenberg-Cox, Madi Cook, Isabella Kimble, Evan Russell, Violette Soto, Tatiana Wright, Chad Albert, Jonathan Hill, and James Tuohy (Glendale Community College, Glendale, AZ)