

# SCHOLARS WEEK

MIDDLE  
TENNESSEE  
STATE UNIVERSITY

## 2016 UNIVERSITY EXPOSITION

FRIDAY, APRIL 1

Complete schedule of events, abstracts, and other information is available at <http://www.mtsu.edu/research/scholarsWeek/>

### PERFORMANCES: DANCE/THEATRE/MUSIC

#### Student Union Ballroom Lobby

- 11:30 Excerpts from *West Side Story*. Ben George, Robbie Ramirez, Conner McCabe, Alex Irwin, Jay Mullens and Aaron Johnson performing "Jet Song" and "Officer Krupke," accompanied by Micah Snow
- 12:00 *Transit: Transfers & Connections*. Featuring Dancers from the MTSU Dance Theatre. Choreographer: Meg Brooker (Faculty). Music: Different Trains I: America Before the War/Kronos Quartet. Composer: Steve Reich. Lighting Designer: John Underwood. Dancers: Deryl Gasque, Andrew Gateley, Emily Hardin, Josh Jackson, Amber Jordan, Rachel Miller, LD Mitchell, Brianna Morris, Monzie Scott, Kaliss Stephens, Rachel Vassar, Ginny Whaley, Miya Winans
- That You Have* – excerpt, Featuring Dancers from the MTSU Special Topics in Dance "Dance and Visual Art" course – Fall 2015. Choreography: Marsha Barsky with dancers. Music: Ben Frost. Dancers: Rachel Miller, Jesse Reeder, Annah Slayton, Kaliss Stephens, Rachel Vassar, Kevana West, Ginny Whaley, Miya Winans
- Strange Fruit*. Choreography: Tarrisha Hicks and Sierra Smith. Music: Nina Simone. Dancers: Tarrisha Hicks and Sierra Smith

### CENTERS, INSTITUTES, AND PROGRAMS

- 1 Tennessee Center for Botanical Medicine Research (TCBMR)
- 2 College of Graduate Studies (CGS)
- 3 Undergraduate Research Center (URC)
- 4 Interdisciplinary Microanalysis and Imaging Center (MIMIC)
- 5 Women in STEM Center (WISTEM)
- 6 Center for Health and Human Services (CHHS)
- 7 Forensic Institute for Research and Education (FIRE)
- 8 Business and Economic Research Center (BERC)
- 9 James E. Walker Library

### FACULTY POSTERS

- 100 THE IMPACT OF CHALLENGE AND HINDRANCE DEMANDS ON MULTI-FACETED SALESPERSON BURNOUT. Lucy Matthews; Brian Rutherford
- 101 INFERRED PALEOZOIC REACTIVATION OF PRECAMBRIAN BASEMENT FAULTS WITHIN THE NASHVILLE DOME, CENTRAL TENNESSEE. Mark Abolins; Shaunna Young; Joe Camacho; Mark Trexler; Alex Ward; Amber Han; Jonathan Flores; Matt Cooley
- 102 ARE BILATERAL AND MULTILATERAL AID FOR TRADE COMPLEMENTARY? ACCOUNTS FROM AFRICA. Bichaka Fayissa; Bedassa Tadesse; Elias Shukralla

- 103 REMOTE SENSING OF AGRICULTURAL CROPS IN ARGENTINA USING UAS TECHNOLOGY. Tony Johnston; Douglas Campbell
- 104 ENERGY HARVESTING MATERIALS AND DEVICES LABORATORIES AND INSTRUCTIONAL FACILITY. Vishwas Bedekar
- 105 CIVIC ENGAGEMENT AS EXPERIENTIAL LEARNING IN A GENERAL EDUCATION COURSE. Melicent Homan; Jennifer Jackson
- 106 THE MENDELIAN MONOHYBRID CROSS: AN ANIMATED FILM. Kevin McNulty; Bruce Cahoon

### HIGH SCHOOL POSTERS

- 200 HOW COLOR AFFECTS TASTE: CITRUS MODELS. Katelyn Walls
- 201 SELF-FULFILLING PROPHECY IN RESPONSE TO HOROSCOPES. Emma Kruse; Nathan Smith
- 202 THE INFORMATIONAL CONFORMITY OF WAITING LINES. Rebecca Halliburton
- 203 THE EFFECT OF PARENTING STYLE ON ADOLESCENT SELF-ESTEEM. Claudia DiVincenzo
- 204 THE ASSOCIATION OF PERSONALITY TRAITS TO THE SELECTION OF CLOTHING THROUGH COLOR AND COMFORT. Margaret Stubblefield
- 205 MUSIC EDUCATION AND READING COMPREHENSION. Amelia Harrison; Kirstin Taylor

### UNDERGRADUATE POSTERS

- 300 RHONDA ROUSEY: WHY A WOMAN WHO WINS CAN NEVER TRULY WIN. John Westmoreland
- 301 GUN-RELATED HOMICIDE IN AMERICA: WHY THE RATES DIFFER FROM STATE-TO-STATE. John Westmoreland
- 302 INVESTIGATING THE ABILITY OF A FOLATE BIOSYNTHESIS MUTANT TO AFFECT LIFESPAN IN BUDDING YEAST. Muhammad Osama Ali; Muhammad Fariz Ali
- 303 PROPERTIES OF AN MTSU BLUE DONOR-PI-ACCEPTOR POLYENE DYE. John Lasseeter; Mohammed Ali; Donnan Keith; Eric Reinheimer; Andrienne Friedli
- 304 A SYNTHETIC APPROACH TO A SERIES OF BORON-CLUSTER BASED LIQUID CRYSTALS. John Lasseeter; Pawel Tokarz; Jacek Pecyna; Piotr Kaszynski; Andrienne Friedli
- 305 URBAN SPRAWL AND ENVIRONMENTALLY SAFE ALTERNATIVES. Brittne Hall; Eli Phipps; Christopher Sharp
- 306 CARBON FOOTPRINT. Amber Underwood; Tifini Marino; Aya Shanoun
- 307 NATIONAL PARK ENDANGERMENT. Sandra Spain; Christy Hume; Jessica Hargrove; Marcella McBride
- 308 THE EFFECTS OF FISHING. Breana Jolly

- 309 CONTROLLING MANUFACTURING POLLUTION. Abigail Jones; Derek Bennett
- 310 ONE PERSON'S TRASH IS ANOTHER PERSON'S TREASURE. Brooke Burns; Austin Morris; Kendra Lawrence; Brittney Spencer
- 311 WHAT IS LIGHT POLLUTION AND WHY DOES IT MATTER? Adam Hensley; Damien Malone
- 312 WHAT ARE FACTORS THAT POSSIBLY DETERMINE A STATE'S INFRASTRUCTURE EXPENDITURES? Justin DeMello
- 313 OPTIMIZING THE BEAM LENGTH PATTERN TO INCREASE BEAM POWER FOR THE SPALLATION NEUTRON SOURCE. Josie Lyon
- 314 WHY ARE SOME SUB-SAHARAN AFRICAN COUNTRIES SO MUCH MORE UNSTABLE THAN OTHERS? Greg Mayfield
- 315 WHY ARE SOME NATIONS MORE SUSCEPTIBLE TO TERRORISM THAN OTHERS? Kayo Beshir
- 316 WITHDRAWN
- 317 WITHDRAWN
- 318 THE ACCEPTANCE OF WOMEN IN LEADERSHIP ROLES: A STUDY OF LATIN AMERICAN NATIONAL LEGISLATURES. Olivia Nodine
- 319 WHY DO SOME BORDER CONFLICTS RESOLVE IN VIOLENCE? Ashley Martinez
- 320 ROCKIN' RAIDER ROBOTS ARE INCREASING MIDDLE SCHOOL GIRLS' INTERESTS IN STEM. Jessica Earls; Lena Anderkin; Judith Iriarte-Gross
- 321 WHY IS POVERTY MORE PREVALENT IN SOME NORTH AFRICAN COUNTRIES THAN OTHERS? Amanda Freuler
- 322 FOLATE EFFECTS ON LIFESPAN OF *SACCHAROMYCES CEREVISIAE*. Alesha Hicks; Kayla O'Connell
- 323 PATHOGEN DETECTION IN FOODS BY MULTIPLEX POLYMERASE CHAIN REACTION. James Dean; Mustafa Alwan
- 324 POLLUTION RETENTION CAPABILITIES OF PERVIOUS CONCRETE AUGMENTED WITH MICROBIAL AND ALGAL COMMUNITIES. Megan Schulz; Robert Miller; McKayla King; Martha Fonseca; Kayla Cowan; Sophia Britt
- 325 DISTINGUISHING BETWEEN MORPHOLOGICALLY SIMILAR LICHENS BY STEROL COMPOSITION. Hannah Houle; Channell Davis; Alexis Johnson; Arol Zague; Chris Adereti; Justice Adewumi; Doha Ahmed; Mary Botros; Wesley Kirkland; Brittne Miles; et al.
- 326 MOTION AND STABILITY IMPROVEMENT OF A ROSTOCK GEOMETRY DELTA ROBOT. Boston Weisgerber; Donte Kirk; James Boyce
- 327 DETERMINING CONFORMATION AND GEOMETRY OF SPECIFIC RESIDUES IN MODEL PEPTIDE BY <sup>13</sup>C ISOTOPE-EDITED ATR-FTIR IN H<sub>2</sub>O. Cuauhtemoc Gonzalez
- 328 RISING FROM THE DEPTHS OF DESPAIR: THE HEALING ARTS OF LADY PHILOSOPHY IN BOETHIUS'S THE CONSOLATION OF PHILOSOPHY. Nausheen Qureshi
- 329 ALTERNATIVE mRNA SPLICING ANALYSIS OF DAF-2 DURING HYDROGEN PEROXIDE STRESS. Mahmuda Akter; Paige Davis-Farrow; Rebecca Seipelt-Thiemann
- 330 CREATING A BETTER WORLD FOR PRESCHOOL CHILDREN BY LISTENING GLOBALLY. Calla Sharp; Emily Tinch
- 331 RETRACING THE BIRTH OF AVIATION: A CREATIVE PROJECT. Collin McDonald
- 332 RASPBERRY PI CONTROLLED AUTONOMOUS ROBOTS. Jonathan Bogasky
- 333 ANALYSIS OF A LIGHTER, FASTER LUNAR ROVER. Merna Zaref; Timothy Brown; Sean Sibrel; Tavaris Plymouth
- 334 EVALUATING GENE EXPRESSION IN RAINBOW TROUT USING RNA-SEQUENCING. Jasmine McCroskey; India Mathis; Vanessa Ndongala; Taylor Kelsey; Caitlyn Midgett; Mia Krout; Ali Ali
- 335 A SURVEY OF WOUNDING FREQUENCY AMONG TREES FOUND IN URBAN AND FOREST ENVIRONMENTS. Lee Rumble; Melanie Heckman; Drew Sieg
- 336 CHARACTERIZATION OF AURONE X AS A POTENTIAL DRUG CANDIDATE AGAINST *CRYPTOCOCCUS NEOFORMANS*. Yusra Mohammed; Danielle Araujo; Erin McClelland
- 337 COMPARISON OF EQUINE PACKED CELL VOLUME (PCV) DETERMINED BY CENTRIFUGATION IN A MICROHEMATOCRIT TUBE TO GRAVITATIONAL SETTLING OF WHOLE BLOOD IN A 12 mL SYRINGE. Emily Anne Carol Smith
- 338 HOLOGRAPHIC REDUCED REPRESENTATIONS FOR WORKING MEMORY CONCEPT ENCODING. Grayson Dubois
- 339 SYNTHESIS OF ANALOGS OF THE PROTEASOME INHIBITOR BELACTOSIN A. Ariel Stephenson; Zack Fitzsimonds; Norma Dunlap
- 340 TOXICANT DESTRUCTION EFFICIENCY OF CHLORINE DIOXIDE AND OZONE. Zenbyn Chong
- 341 WHAT IS AN EFFECTIVE WAY TO REHABILITATE A DETERIORATING CORAL REEF SYSTEM IN THE DOMINICAN REPUBLIC? Roger Insyxiengmay; Katie Poss
- 342 SORORITY HOOKUPS: THE NEW WAY TO WEAR THE SCARLET "A." Tawny Helton
- 343 SINGLE BREAST CANCER CELL IONIZATION BY LASER TRAP FOR ACCURATE RADIOTHERAPY. Michele Kelley
- 344 LASER TRAPPING IONIZATION OF SINGLE RED BLOOD CELLS WITH AA AND AS HEMOGLOBIN TYPES. Marisa Pasquerilla
- 345 DETERMINATION OF A PROTOCOL FOR ACHIEVING ENDOPHYTE-FREE TISSUE CALLUS OF *VITIS AESTIVALIS* 'NORTON/CYNTHIANA'. Aimee Wilson; John DuBois
- 346 DETECTION OF PHOTONS FROM TYPE I SPONTANEOUS PARAMETRIC DOWN-CONVERSION. Andy Black; Daniel Erenso
- 347 ANALYSIS OF COLOR POWDERS TO DETERMINE POSSIBLE HEALTH RISKS FROM HAZARDOUS TRACE ELEMENTS. Jazzmine Navarro
- 348 MEASURING GLUCOCORTICOID METABOLITE LEVELS, BEHAVIORAL PROFILES, AND WEIGHT GAIN IN TWO, HAND-REARED, CAPTIVE CLOUDED LEOPARDS (*NEOFELIS NEBULOSA*): A PRELIMINARY ASSESSMENT. Logan Whiles
- 349 INHIBITION OF *CRYPTOCOCCUS NEOFORMANS* BY EXTRACT 23B. Kayla Conner; Erin McClelland; Scott Handy
- 350 HIGH THROUGHPUT SCREENING TO IDENTIFY TRADITIONAL CHINESE MEDICINE PLANT EXTRACTS WITH ACTIVITY AGAINST *TRICHOMONAS VAGINALIS*. Charlie Boyle; Jeannie Stubblefield; Anthony Newsome
- 351 AN EXAMINATION OF GAUSSIAN BASIS SETS USING A PSEUDOPOTENTIAL. Justin Cousineau; Jing Kong
- 352 THE RELATIONSHIP BETWEEN AGE OF INITIATION OF CIGARETTES AND SUBSTANCE ABUSE AMONG TENNESSEE HIGH SCHOOL STUDENTS. Miranda Givens
- 353 CATION EXCHANGE IN QUANTUM DOTS: LESSONS FROM THE ZN/PB SYSTEM. Ryan Tilluck; Alexander Morris; Paul Greg Van Patten
- 354 SINCLAIR LEWIS AND THE F-WORD: CAN MEN BE FEMINISTS? Shelby Conklin; Sydney Russell
- 355 AN EVOLUTIONARY ANALYSIS OF MEMBRANE-ASSOCIATED GUANYLATE-KINASE PROTEIN FAMILY. Ryan Carr; Heather Deal; Rebecca Seipelt-Thiemann
- 356 SYNTHESIS OF FE COMPLEX WITH METAL-LIGAND COOPERATIVITIES. David Tyer
- 357 RADIO OBSERVATIONS OF THE SUN, EARTH, AND JUPITER. Joshua Vaughn; Jacques Beasley; John Jackson
- 358 *IN SITU* RUMEN DEGRADATION RATE OF HONEY LOCUST (*GLEDITISIA TRIACANTHOS*) SEED PODS IN THE BOVINE AS A MODEL FOR THEIR USE IN CAPTIVE GIRAFFE DIETS. Caitlin Chase; Kevin Downs
- 359 WITHDRAWN
- 360 THE PILGRIMAGE OF A BURNER: MOTIVATIONS BEHIND THE GLOBAL TREK TO THE NEVADA WASTELAND. Olivia Thompson
- 361 WITHDRAWN
- 362 THE MEANING AND MOVEMENT BEHIND THE BLACK POWER FIST. Jordan Dickerson
- 363 THE ASCENT OF MOUNT KILIMANJARO: A JOURNEY INTO THE MIND OF HEMINGWAY. Mary Claire Bennett
- 364 PEOPLE'S DECADE FOR NUCLEAR ABOLITION: A SOCIAL MOVEMENT. Stephanie Torbit
- 365 THE GOOD WIFE? : PEARL S. BUCK'S FEMINIST CRITIQUE. Lusha Li; Jiaying Du
- 366 RELATIONSHIP BETWEEN SCHIZOTYPY AND SELF-TALK. Taylor Webb
- 367 WITHDRAWN
- 368 SEASONAL VARIATION OF TERPENE EMISSION PROFILE IN PLANTS. Ashley Caldwell
- 369 ASSESSMENT OF ANTI HERPES ACTIVITY IN *BIDENS BITERNATA*. Darcy Tabotabo
- 370 SLEEPY HOLLOW IN THE 21<sup>ST</sup> CENTURY. Logan Varnell; Tyler Gattie; Alexis Arriaga
- 371 DEVELOPMENT OF AN E-COOKBOOK FOR PREADOLESCENT CHILDREN. Mabel Rodriguez
- 372 WHAT DOES BCAT DO IN *CRYPTOCOCCUS NEOFORMANS*? Kathryn Brittain; Erin McClelland

- 373 SINNERS IN THE HANDS OF AN ANGRY GOD: THE MYTH OF AMERICAN EXCEPTIONALISM. Daniel Vincent; Austin Buffalo; Ryan Essary
- 374 MORE MISSING: EXPANDING CONTENT ANALYSIS IN SOCIAL WORK JOURNALS TO INCLUDE NON-BINARY ORIENTATIONS AND GENDER IDENTITIES. Sana Marie Wilson
- 375 ISOLATION AND IDENTIFICATION OF MEDICINAL METABOLITES FROM *CICHORIUM INTYBUS*. Chelsea Harmon
- 376 DISCREPANCIES IN THE SIZE OF THE POLYSACCHARIDE CAPSULE OF *CRYPTOCOCCUS NEOFORMANS* CONTINGENT UPON HOST GENDER. Pei Doski
- 377 ELUCIDATING THE CHEMISORPTION PHENOMENA IN SERS STUDIES VIA COMPUTATIONAL MODELING. Yvonne Ejorh; Beng Ooi; William Ilsley
- 378 READING BETWEEN THE LINES: RACE AND RACISM IN THE HAIRY APE. Heather LaFever
- 379 RIP VAN WINKLE AND OF AMERICAN IDENTITY. Brandon Cartright; Dylan Russell; Taylor Eaton
- 380 DEVELOPMENT OF MULTI-WELL, SOLID-SUPPORTED SYNTHESIS TECHNIQUE FOR AURONES. Evan Conley
- 381 ANTIBACTERIAL PROPERTIES OF PLANT EXTRACTS USED IN TRADITIONAL CHINESE MEDICINE FOR *STREPTOCOCCUS PNEUMONIAE* AND *NEISSERIA GONORRHOEAE*. Kelly Saine
- 382 A COMPARATIVE THEMATIC ANALYSIS OF FRATERNITY MEN'S AND SORORITY WOMEN'S PERSPECTIVES ON HOOKING UP. Samantha Crossland
- 383 EXAMINING ARCHAEOBOTANICAL REMAINS AT THE MAYAN SITE OF EL PILAR. Jessica O'Neill
- 384 WIRELESS INDOOR LOCALIZATION. Joe Beck
- 385 MENTAL ILLNESS AND SMALL-MINDEDNESS IN JOHN STEINBECK'S *OF MICE & MEN*. Richard Carman; Matthew Dossett
- 386 "THE MYTH OF MASCULINITY": SOCIAL CONSTRUCTION OF MASCULINITY IN EARLY AMERICAN LITERATURE. Veronica Placeres; Landon Reid; Tyler Hunt
- 387 EVALUATING THE ACCEPTANCE OF AN ORIGINAL LAYERED TACO RECIPE TO ELEMENTARY STUDENTS WHILE ADHERING TO THE SCHOOL NUTRITION GUIDELINES. Stacy Edwards; Lita Clark
- 388 OBSERVATIONAL STUDY OF THE PARIS ATTACKS REGARDING SOCIAL MEDIA. Malondria Hooker; Marquinta Harvey; Amber Dorsey; Denise Bates
- 389 HIGH THROUGHPUT SCREENING OF A SMALL MOLECULE LIBRARY FOR POTENTIAL TO TREAT LEISHMANIASIS. Yucera Salman; Jeannie Moore Stubblefield; Erin Herbstova; Anthony L. Newsome
- 390 EVALUATION OF TRADITIONAL CHINESE MEDICINE PLANT EXTRACTS FOR THE TREATMENT OF CUTANEOUS LEISHMANIASIS. Erin Herbstova; Jeannie Moore Stubblefield; Yucera Salman; Anthony L. Newsome
- 391 APPLICATION OF DATA MINING APPROACH TO PREDICT A LEVEL OF ACHIEVEMENT FROM INDIVIDUAL CHARACTERISTICS: BASED ON DECISION TREE ALGORITHMS. Jeeun Yi
- 392 NEWCOMER ADJUSTMENT SUMMARY REPORT. Maria Saavedra; Amanda Beaufore
- 393 DRAG ANALYSIS OF CLASS-8 TRUCKS. Salman Rahmani
- 394 PURIFICATION AND CHARACTERIZATION OF RECOMBINANT NUCLEOSIDE HYDROLASE FROM *ARABIDOPSIS*. Kimberley Warren
- 395 QUEER THEORY AND TWO SPIRIT PEOPLE. Anne Gillcrist
- 396 COMPUTATIONAL ANALYSIS OF DRAG REDUCTION METHODS FOR A REARWARD FACING STEP. Nick Myhre
- 397 IMPROVING THE DETECTION LEVELS OF URIC ACID. Marvin Marksberry
- 398 SOUND REDUCTION ON SMALL AIRCRAFT PROPELLERS. Virginia Robinson; Braxton Harter
- 399 SINCLAIR LEWIS: NOBEL PRIZE WINNER AND LITERARY SOCIALIST. Delaney Dickey; Brandon Reed
- 400 THE AUTOBIOGRAPHICAL IMPULSE IN FAULKNER AND HEMINGWAY. Jessica Howard
- 503 NON-GAUSSIAN PENALIZED PARAFAC ANALYSIS OF fMRI DATA. Jingsai Liang; Don Hong
- 504 THE IMPACT OF ADOLESCENCE EMPLOYMENT ON WELFARE PARTICIPATION LATER IN LIFE. Fady Mansour
- 505 PILOT STUDY: A SURVEY OF MIDDLE AND HIGH SCHOOL CHORAL, BAND, AND ORCHESTRA DIRECTORS REGARDING PROFESSIONAL DEVELOPMENT OF MUSICIANSHIP SKILLS FOR MUSIC EDUCATORS. Jessica Brown; Dr. Jamila L. McWhirter
- 506 VITALITY IN URBAN STREETS. Fatemeh Dalilian
- 507 SCANNING ELECTRON MICROSCOPY INVESTIGATION OF FUNGAL CONTAMINATION IN *VITIS AESTIVALIS* 'NORTON.' Shannon Smith; John DuBois
- 508 MICROPROPAGATION OF AMERICAN GINSENG (*PANAX QUINQUEFOLIUS*) VIA SOMATIC EMBRYOGENESIS TECHNIQUES. Matt Fuller; Shannon Smith; Elliot Altman
- 509 NOT ANOTHER MEETING! Joel Clements
- 510 THE CAPTURE AND CREATIVE USE OF ACOUSTIC IMPULSE RESPONSES. Adam Townsell
- 511 THE PARALLEL PROGRAMMING RUNNING ON CONDOR-G WORKFLOW SCHEDULER. Kaite Tang
- 512 AUTHORSHIP PREDICTION WITH CUDA-ACCELERATED N-GRAM AND FEED-FORWARD NEURAL NETWORK MODELS. Taylor Harvin
- 513 THE ART OF SOUNDTRACK DESIGN. Aaron Trimble
- 514 RELIABILITY OF COMPUTERIZED NEUROCOGNITIVE TESTS FOR CONCUSSION ASSESSMENT: A META-ANALYSIS. James Farnsworth; Lucas Dargo; Brian Ragan; Minsoo Kang
- 515 DEVELOPMENT OF A MODEL TO ESTIMATE BODY FAT PERCENTAGE USING DECISION TREE ANALYSIS. Junbae Mun; James Farnsworth; Brian Ragan; Minsoo Kang
- 516 COMPOSITIONAL DATA ANALYSIS OF SEDENTARY BEHAVIOR PATTERNS IN OVERWEIGHT AND NON-OVERWEIGHT ADULTS. Heontae Kim; Seungho Ryu; Junbae Mun; James Farnsworth; Brian Ragan; Minsoo Kang
- 517 ANALYSIS OF MTSU STUDENT RETENTION DATA. Danielle Baghernejad
- 518 EFFECT OF REST-PAUSE VS. TRADITIONAL BENCH PRESS TRAINING ON MUSCLE STRENGTH, ELECTROMYOGRAPHY AND LIFTING VOLUME. Adam Korak; John Coons; Dana Fuller
- 519 PHYSICIAN VIEWS OF WORKING WITH LGBT+ PATIENTS IN GENERAL MEDICINE. Tara Prairie; Bethany Wrye; Norman Weatherby; Sharon Parente; Cynthia Bass-Thomas; Sarah Murfree
- 520 BROADCASTING LIVE: SPORTS, NEWS AND MUSIC. Jessica Ramsey
- 521 TOWARDS THE MOLECULAR IDENTIFICATION OF Afr2, A GENE IMPLICATED IN LIVER CANCER. Zach Grimes
- 522 MAPPING PREDICTORS OF TEAM PERFORMANCE. Megan Wertheimer
- 523 ANALYZING GEOSPATIAL COORDINATES IN TWITTER DATA FOR EVENT DETECTION. Ashley Bizot
- 524 AFFORDABLE SOLAR CELLS. Muhammed Aljohani
- 525 CREATION OF A DRUM SAMPLE LIBRARY. Enrique Ferrer
- 526 IMAGE CRYPTOGRAPHY WITH CHAOS: TESTING THE K-EPSILON TURBULENCE MODEL AS A CHAOS GENERATOR. Gary Hammock
- 527 ARTIFICIAL INTELLIGENCE PROGRESSING EXPONENTIALLY IN DIRECTIONS WHICH WILL DRASTICALLY CHANGE OUR WAY OF COMPUTING FOREVER. Trent Christian
- 528 NATURAL VARIABILITY IN REFERENCE SITE MUSSEL SAMPLES: AN ANNUAL AND SEASONAL ANALYSIS. Amber Hills; Dave McKinney; Susan Lanier
- 529 ACADEMIC OUTCOMES ASSOCIATED WITH AN EARLY MORNING PHYSICAL ACTIVITY PROGRAM. Kristi Phillips; Rudy Dunlap
- 530 EXTENDED SCHOOL DAY HOURS AND THE IMPACT ON ACHIEVEMENT SCORES. Dazarae Higgs
- 531 COMPOSITIONAL DATA ANALYSIS OF TOTAL ACTIVITY PATTERNS BY SEX AND OBESITY STATUS. Seungho Ryu; Heontae Kim; Junbae Mun; Brian Ragan; Minsoo Kang
- 532 THE RELATIONSHIP BETWEEN PILL SHARING AND ABUSE OF OPIATE PAIN RELIEVERS. Cynthia Bass-Thomas; Marquinta Harvey; Amber Dorsey; Dr. Norman Weatherby; Dr. Andrew Owusu
- 533 THE EFFECT OF STUDENT SES STATUS ON TEST ITEMS OF EXPOSITORY TEXT. Laura Clark Briggs; Jwa Kim
- 534 CLASSICAL MUSIC AND ITS INFLUENCE IN NOWADAYS POPULAR MUSIC. Paula Hernandez
- 535 SIMULATING MULTISPECTRAL IMAGERY USING SPECTRAL BAND SYNTHESIS TECHNIQUE AND HYPERSPECTRAL DATASETS. Laura Trujillo

## GRADUATE POSTERS

- 500 COMPLICATING THE FALSE DICHOTOMY OF GENDERED ARCHETYPES FOR VICTORIAN WOMEN. Jacquelyn Hayak
- 501 THE ANGRY AUDIENCE: EXAMINING FAN DISCORD AND MODERN MEDIA. Hillary Yeager
- 502 CARSON MCCULLERS AND THE MODERNIST AESTHETIC. Margaret Johnson

- 536 DEFORESTATION AND ITS EFFECTS. Syed Bukhari
- 537 CREATION OF THE RTA1 RECONSTITUTED STRAIN IN *CRYPTOCOCCUS NEOFORMANS*. Emily Smith; Erin McClelland; Ronakkumar Patel
- 538 OPTIMIZING END-TO-END PERFORMANCE OF DISTRIBUTED APPLICATION WORKFLOWS IN HETEROGENEOUS COMPUTING ENVIRONMENT WITH RESOURCE SHARING. Eti Aggarwal
- 539 A SILVER BULLET FOR BULLWHIP EFFECTS: MINIMIZING LEAD-TIME. Soochan Choi
- 540 GAS METAL ARC WELDING PARAMETER DEVELOPMENT. Michael Thompson
- 541 HOW PEOPLE THINK ABOUT HEALTHY AND UNHEALTHY BEHAVIORS. Kyle Long; Tom Brinthaup
- 542 EXHIBIT CREATION AT OLD STONE FORT ARCHAEOLOGICAL PARK. Heather Scheurer; Katie McClurkin
- 543 INVESTIGATING ACID SPHINGOMYELIN ACTIVITY CHANGES IN NIEMANN-PICK DISEASE AND TREATMENT. Snehal Sant; Matt Fuller; Nicholas Chamberlain
- 544 MODELING, SIMULATION AND OPTIMIZATION OF PIEZOELECTRIC BIMORPH TRANSDUCER FOR BROADBAND VIBRATION ENERGY HARVESTING. Nan Chen; Vishwas Bedekar
- 545 EVALUATION OF THE WELFARE OF THE LESSON HORSE USED FOR EQUINE ASSISTED ACTIVITIES AND THERAPIES. Holly Nobbe; Holly Spooner; Sarah English
- 546 INFLUENCE OF LONG-TERM FUROSEMIDE USE ON BONE MINERAL CONTENT, BONE METABOLISM MARKERS, AND WEIGHT LOSS IN HORSES. Abby Pritchard; Holly Spooner; Rhonda Hoffman; John Haffner
- 547 GRANGER CAUSALITY EFFECTS ON EXCHANGE RATE, INTEREST RATE AND INFLATION RATE IN U.S.A. Pramita Saha
- 548 AUTOMATED WEBSITE TESTING USING JUNIT FRAMEWORK AND REST WEB SERVICES. Swapnil Rajput
- 549 INFECTION OF MACROPHAGES WITH THE PATHOGENIC YEAST, *CRYPTOCOCCUS NEOFORMANS*, ALTERS INFLAMMATORY NF- $\kappa$ B SIGNALING BY TRANSLATIONAL INTERFERENCE. Linda Sircy; James Hayes; Lauren Heusinkveld; Rachel Leander; Wandi Ding; Erin McClelland; David Nelson
- 550 COMBINING LATENT DIRICHLET ALLOCATION AND MODEL TREES WITH POINT PROCESS MODELING ON THE AFGHAN WAR DIARY. Cody Crawford
- 551 SIMULATION OF MULTIPLE INHERITANCE IN JAVA. Sonal Swaroop
- 552 A GOAL-ORIENTED EVALUATION OF THE FAMILY MEDICINE RESIDENCY PROGRAM AT THE SAINT LOUISE CLINIC. Sarah Murfree; Norman L. Weatherby, PhD; Christopher Dunlap, MD; Pamela Singer, DO
- 553 INTEGRATED ANALYSIS OF lncRNA AND mRNA EXPRESSION IN RAINBOW TROUT FAMILIES SHOWING VARIATION IN MUSCLE GROWTH AND FILLET QUALITY TRAITS. Ali Ali; Bam Paneru; Rafet Al-Tobasei; Timothy Leeds; Brett Kenney; Mohamed Salem
- 554 GENOMIC ANALYSIS AND GROWTH CHARACTERISTICS OF THREE STRAINS OF *GARDNERELLA VAGINALIS*. Destaaem Kidane; Brock Arivett
- 555 DETERMINANTS OF ADOPTION OF THE SHEP GUIDELINES FOR HEALTH SERVICES DELIVERY IN GHANAIAN PRIMARY AND SECONDARY SCHOOLS. Angela Bowman
- 556 ANALYSIS OF PRODUCTION METHODS FOR BRAZILIAN POP MUSIC. Gibran Sponchiado
- 557 PASSIVE ACQUISITION OF MISINFORMATION THROUGH SOCIAL MEDIA POSTS AND COMMENTS. Andrew Hunt; Theresa Holcomb
- 558 A COMPARISON STUDY OF TECHNIQUES FOR PROCEDURAL CONTENT GENERATION FOR GAMES. Luke Rowell
- 559 DEOXYGENATION OF ALDEHYDE OR KETONE TO THEIR SATURATED COMPOUNDS. Latifah Alhthol; Evidence Nwangwa
- 560 EFFECT OF pH ON gp120-CD4 INTERACTION IN FOUNDER AND CHRONIC HIV STRAINS USING PROTEIN MODELLING. Jonathan Howton; Joshua Phillips
- 561 AN ELECTROENCEPHALOGRAPHIC NEUROPHYSIOLOGICAL INVESTIGATION OF MEANING THREAT. Micah D'Archangel; Christof Fehrman; Tyler Hubbard; Cyrille Magne; William Langston
- 562 EFFECTS OF STANDING MARTINGALE USE ON KINEMATICS AND CONFLICT BEHAVIOR IN JUMPING HORSES. Devin Lintzenich; Holly Spooner; Anne Brzezicki
- 563 EVALUATION OF FOURTEEN AURONE DERIVATIVES AS POTENTIAL ANTI-CANCER AGENTS. Gheda Alsaif; Nadin Almosnid
- 564 CYTOTOXIC EFFECTS OF SYNTHETIC AURONES ON THE RBL-2H3 MAST CELL LINE. Meagan Garrison; Hyo Park; Anthony Farone; Scott Handy
- 565 THE CONSTRUCTION OF GENDER ROLES IN AMERICAN CULTURE DURING WORLD WAR II IN NORMAN ROCKWELL'S "WILLIE GILLIS" SERIES. Leah Bailey
- 566 THE EFFECT OF WHOLE BODY VIBRATION ON BONE DENSITY AND OTHER PARAMETERS IN THE EXERCISING HORSE. Kayleigh Maher; Holly Spooner; Rhonda Hoffman; John Haffner
- 567 GC-MS ANALYSIS OF MEMPHIS AIR QUALITY USING EPA TO-15 METHOD. Kiin Keith; Ebtsam Seteh; Ngee Chong
- 568 PERCEPTIONS OF WELFARE REGULATION AT STOCK-TYPE HORSE SHOWS. Andrea Rego; Holly Spooner; Rhonda Hoffman; Anne Brzezicki
- 569 THE EFFECT OF GRASSROOTS SOCIAL MEDIA ORGANIZATIONS ON THE SYRIAN REFUGEE CRISIS. Marquinta Harvey; Malondria Hooker; Nicole Leblanc; Denise Bates
- 570 DETERMINATION AND DETECTION OF PENTOBARBITAL BREAKDOWN RATE IN VARIOUS SOIL TYPES. Anita Saha
- 571 KINETIC MECHANISM AND SUBSTRATE SPECIFICITY OF PURINE NUCLEOSIDE PHOSPHORYLASE FROM BOVINE LIVER. Brett Henry
- 572 ANTI-TRYPANOSOMAL IRIDALS ISOLATED FROM IRIS DOMESTICA. Anuradha Liyana Pathirana; Jeannie Stubblefield; Norma Dunlap
- 573 FRACTIONATION OF BOTANICAL POLYSACCHARIDES USING ION EXCHANGE CHROMATOGRAPHY AND SIZE EXCLUSION CHROMATOGRAPHY. Rajarshi Ghosh
- 574 UTILIZATION OF ARTIFICIAL INTELLIGENCE APPROACHES IN EDUCATION. Mayasir Aljohani
- 575 TWEETS CLASSIFICATION. Pooja Mohite
- 576 FRAUD DETECTION IN CREDIT CARD SYSTEM FOR ONLINE TRANSACTIONS USING DATA MINING. Divyashree Shivalingappa
- 577 BIODIVERSITY OF THE SPIDER GENUS *TETRAGNATHA* IN RIPARIAN AREAS OF TENNESSEE. Connor Olson
- 578 THE ROLE OF CADHERIN-MEDIATED CELL ADHESION IN ESTABLISHING PLANAR CELL POLARITY. Dianna Prince; Jason Jessen
- 579 CHARACTERIZING CELL-MATRIX INTERACTIONS IN *DANIO RERIO* WITH THE DEFECTIVE PLANAR CELL POLARITY PROTEIN Vangl2. Anna Love; Jason Jessen



<http://www.mtsu.edu/scholarsweek/>

**First-place posters will be on exhibition in the Walker Library – April 4–April 17**

**Scholars Week Organizing Committee**

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