

2014

2014 Research at Andrews

Andrews University

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Projects supported by the Office of Research and Creative Scholarship, 2013–2014

Faculty Research Grants

Synthesis and Investigation of Isoxazoline Scaffolds as Selective Antibacterial Agents
Lisa Ahlberg (Chemistry & Biochemistry)

Historical socio-economic and xeriscape plants at Tall Hisban, Jordan
Stanley Beikmann (Agriculture)

Denominational Persistence and Denominational Exit Among Adventist University Alumni
Larry Burton (Teaching, Learning & Curriculum)

Music Relaxation Video and Biophysical Measurements: A Randomized Controlled Trial
Grace Chi (Nursing)

Creation and Exhibition of "Poetic Licenses"
Greg Constantine (Visual Art & Design)

Creation and Exhibition of "Proximity" painting series
Kari Friestad (Visual Art & Design)

Cultural Backgrounds to the Biblical Book of Esther
Constance Gane (Old Testament)

*Seasonal variation in diet of fossil Wyoming ground squirrels (*Urocyon elegans*) from Porcupine Cave, CO*
Thomas Goodwin (Biology)

"First Person Shooters", "Saints and Sinners"
Steven Hansen (Visual Art & Design)

Paleoecological Reconstruction of Protection Island, Washington
Shandelle Henson (Mathematics) and **Jim Hayward** (Biology)

Synthesis and Separation of an Arginine-based Heterocyclic Amine
Ryan Hayes (Chemistry & Biochemistry)

Iris Murdoch's "Forest": On Value, Askesis, and the Good
Ante Jeroncic (Religion & Biblical Languages)

The influence of religiosity, religious involvement, spiritual maturity, adherence to Adventist core beliefs, and Adventist education on denominational loyalty among youths and young adults in Sabah mission of Seventh-day Adventists
Jimmy Kijai (Graduate Psychology & Counseling)

Native English Speakers' Comprehension and Perception of a Nonnative Speech
Julia Kim (English)

Study of conformational and electric charge change of protein binding using the QCM-D and EGFET system
Hyun Kwon (Engineering & Computer Science)

Millennium Horizons in the Global History of the Ancient Near East
Øystein LaBianca (Behavioral Sciences)

Using a New Animal Model of Psychological Stress to Test the Effects of Control vs Predictability on Brain Structure and Function
Pam Litvak (Biology)

Creation of Musical Anthology with Working Title "Exploring Organ Repertoire;" Documentation of William Huber, Jr. Collection at the Library of Congress and Its Donor
Ken Logan (Music)

Spatial risk of exposure to alphaviruses in northeastern Peru
Kanya Long (Biology)

Purification and characterization of a novel yeast protease
Peter Lyons (Biology)

Modulation of Phototaxis by Monoamines
David Mbungu (Biology)

Foundations of Web Design: Introduction to HTML & CSS
Thomas Michaud (Visual Art & Design)

The Religious Roots of the Civil War: Slavery, Judgment, and the Moral Government of God
Nicholas Miller (Church History)

Genomic Stilbenes as Molecular Probes for Nucleic Acids
Desmond Murray (Chemistry & Biochemistry)

*Testing a model for recognition in the auditory system of the cricket *Achetia domestica**
Benjamin Navia (Biology)

Evaluation of the electrical resistance and capacitance of a di-electric electro-active polymer
Boon-Chai Ng (Engineering & Computer Science)

Haemagglutinin (HA) Multimers as Probes for the Detection of 2,3- and 2,6- Sialic Acid Bond Structures
David Nowack (Chemistry & Biochemistry)

The effect of hippotherapy on hypertonicity as measured by the HAT scale (Hypertonia Assessment Tool) Modified Ashworth Tool and gait speed
Elizabeth Oakley (Physical Therapy)

The Influence of Family Dynamics on Contraceptive Use in Madagascar and the Ensuing Impact on Family Well-Being
Joel Raveloharimisy (Behavioral Sciences)

Artist working with the Cavan Burren Research Project
Rhonda Root (Visual Art & Design)

Seminary Training, Role Demands, Family Stressors and Strategies for Alleviation of Stressors' Families
David Sedlacek (Discipleship & Religious Education), **Duane McBride** (Behavioral Sciences), and **Wendy Thompson** (Social Work)

Gene Regulation of Glioblastoma by MicroRNA
Denise Smith (Biology)

Social environment and hormonal control: Their effects on the roles auditory neurons play in regulating phototactic behavior by female crickets
John Stout (Biology)

Evidence: A Body of Original Fine Art Images
Marc Ullom (Visual Art & Design)

Development and validation of an educational kinesiology tutorial for entry-level DPT students
David Village (Physical Therapy)

Effects of Exercise and Nutrition Education Program on the Health Related Quality of Life (HRQOL), Pelvic Pain and Incontinence, and Nutrition for Postpartum Women
Lori Walton (Physical Therapy), **Maggie Hernandez**, **Gretchen Krivak** (Public Health, Nutrition & Wellness)

Exploring Possible Synergy in Weed Suppression with Multiple Strains of Deleterious Rhizobacteria
Rob Zdor (Biology)

Undergraduate Research Scholars

African American Veterans, the Combahee River Raid, and the Politics of the Race in the U.S. Pension Office, 1865-1930
Clifford Allen (Kathryn Silva Banks)

Ethnic Differences in the Relationship between Parent Bonding and Alcohol Use
Subira Brown (Duane McBride)

The Derivation of Identity: Gender, Masculinity, and Sexuality in Coriolanus
Matthew Chacko (Monique Pittman)

Sources of Religious Knowledge as Predictors of Social and Moral Reasoning
Cassandra Chlevin (Karl Bailey)

Evaluation of Copper(II) Ion-Dimethylaminocyanostilbene Binding Interaction
Stephen Gilbert (Ryan Hayes)

Measurement of protein binding in the combined QCM-D and EGFET device
Michael Hess (Hyun Kwon)

Design of a Prototype Clinical Near Infrared Imager
Ricardo Huancaya (Gunnar Lovhoiden)

Seasonal Variation in Diet and Environment of Pleistocene Ground Squirrels from Porcupine Cave, CO: Isotopic Evidence
Luke Kang (Thomas Goodwin)

College Students' Definitions of Domestic Violence and Perceptions of Potential Helping Resources for Victims
Eliana Iller (Melissa Ponce-Rodas)

Breakage Patterns in Bones of Bald Eagle Prey: A Taphonomic Analysis
Christopher Kim (James Hayward)

Investigation of spatial isotope ratios in soil and the effects of fertilizer on plant isotope ratios
Jamie Kim (Tom Goodwin)

Investigation of 1, 3-Dipolar Cycloadditions Mechanisms: Synthesis of Thiolactomycin and Derivatives
Lucyna Krzywon (Lisa Ahlberg)

Amino Acid Analysis of D. novachollondiae Eggshell Fragments Using Reversed-phase HPLC
Jonathan Lee (David Randall)

Calcium Oxide as a Base in Organic Synthesis
Davina Johnson Lowe
(Desmond Murray)

Evaluating The Electrical Resistance and the Capacitance Of Dielectric Electro Active Polymers (DEAP)
James Magbanua
(Boon-Chai Ng)

The Life and Status of Women in Achaemenid Persia
Erika Mikkelsen
(Constance Gane)

Optical trapping of biological molecules
Rufaro Musvosvi (Hyun Kwon)

Modeling of Convection Driven Biosensor Systems
Robert Polski (Hyun Kwon)

Improved Recovery and Purification of Carcinogenic Arginine-Based Heterocyclic Amines
Zachary Reichert (Ryan Hayes)

Dielectric electro active polymer (DEAP)
Cody Rieger (Boon-Chai Ng)

Curvature and Torsion Characterization of a Curve in 3-Dimensional Space
Ye Lim Seo (Yun Myung Oh)

Survival Strategies of Indigenous Population of Jordan: Documenting and Publishing the "Little Traditions" of Hisban
Brittany Swart (Øystein LaBianca)

Synthesis and Investigation of Isoxazoline Scaffolds as Selective Antibacterial Agents
Rosanne Thornhill (Lisa Ahlberg)

The Influence of Family Dynamics on Contraceptive Use in Madagascar and the Ensuing Impact on Family Well-Being
Azra Totobesola (Duane McBride)

3-D Scanning and Reconstruction of Moabite Pottery from Jalul
Krystal Uzuegbu (Randall Younker)

Traumatic Life Experiences and Health Risk Behavior
Michael VanderWaal
(Duane McBride)

The Effects of Exposure to a Documentary Film on Attitudes Toward Homosexuality
Michael VanderWaal
(Harvey Burnett)

Design of a Prototype Clinical Near Infrared Imager
Stefan Von Henner (Gunnar Lovhoiden)

Survival Strategies of Indigenous Population of Jordan: Documenting and Publishing the "Little Traditions" of Hisban
Doneva Walker (Øystein LaBianca)

Bullying Behaviors and Correlates among Elementary and Middle School Girls in Berrien County, Michigan
Lianne Wynne (Curt VanderWaal)

Water/Soil Conservation in Jordan—Dual Education-Academics and Vocational
Andrey Yun (Stanley Beikmann)

Assessing the Predicted Phylogenies of Dengue and Other RNA Viruses
John Zdor (Kanya Long)

Field documentation of summer and fall diet in thirteen-lined ground squirrels, Ictidomys tridecemlineatus
Trevor Zimmerman (Tom Goodwin)

Graduate Research Assistants

Effects of Exercise and Nutrition Education Program on the Health Related Quality of Life (HRQL), Pelvic Pain and Incontinence, and Nutrition for Postpartum Women
Cherisse Buddy (Lori Walton, Maggie Hernandez, Gretchen Krivak)

Eternally At One: Origen's "Fullness" and Ellen G. White's "Harmony" Describe the Eternal Relationship Between God, Humans, and the Whole of His Creation
Kevin Burton (John Reeve)

Millennium Horizons in the Global History of the Ancient Near East
Christine Chitwood (Øystein LaBianca)

The Religious Roots of the Civil War: Slavery, Judgment, and the Moral Government of God
Abner Hernandez-Fernandez (Nicholas Miller)

Millennium Horizons in the Global History of the Ancient Near East
Jeffrey Hudon (Øystein LaBianca)

Development and validation of an educational kinesiology tutorial for entry-level DPT students
Jessica Stotz (David Village)

Purification and characterization of a novel yeast protease
Matthew Schott (Peter Lyons)

Millennium Horizons in the Global History of the Ancient Near East
Jared Wilson (Øystein LaBianca)

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