2014 Research at Andrews

Andrews University

Follow this and additional works at: http://digitalcommons.andrews.edu/researchbrochure

Recommended Citation

http://digitalcommons.andrews.edu/researchbrochure/1

This Book is brought to you for free and open access by the Office of Research and Creative Scholarship at Digital Commons @ Andrews University. It has been accepted for inclusion in Annual Research Brochure by an authorized administrator of Digital Commons @ Andrews University. For more information, please contact trobtsn@andrews.edu.
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)

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

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

- “First Person Shooters”, “Saints and Sinners”
  Steven Hansen (Visual Art & Design)

- Paleoenecological 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 (Biological Sciences)


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

- Purification and characterization of a novel yeast protease
  Peter Lyons (Biological Sciences)

- Modulation of Phonotaxis by Monoamines
  David Mbuungu (Biology)

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

  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 Acheta 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 hypothermia 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)

- Artistic working with the Cavan Bunrein Research Project
  Rhonda Root (Visual Art & Design)

- Seminar Training, Role Demands, Family Stresses and Strategies for Alleviation of Stresses in Pastor’s 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 phonotactic behavior by female crickets
  John Stout (Biological Sciences)

- 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
  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.
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 Chievin (Karl Bailey)

Evaluation of Copper(II) Ion-Dimethylaminoacyanostilbene 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. novachollandiae
Eggshell Fragments Using Eggshell Fragments
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 Capacitive Property of Dielectric Electro Active Polymers (DEAP)
James Magbanua (Boon-Chai Ng)

The Life and Status of Women in Achaemenid Persia
Erika Mikkelson (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
Krysztal 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)

Support Research and Creative Scholarship at Andrews University

Internal grants and Undergraduate Scholar Awards are supported by the Office of Research & Creative Scholarship. To meet the needs of the growing research initiatives around campus, we have instituted a Fund for Research which will be used to support faculty and student research activities above and beyond what is normally funded through the internal grant process, to cover travel expenses to national and international conferences, and to support the hosting of research conferences where our faculty and students can interact with other researchers from around the world.

You may support research at Andrews by choosing to designate a gift to the Office of Research & Creative Scholarship. Please visit www.andrews.edu/go/give/SCHOLAR or fill out the form to the right to support research at Andrews.

The Fund for Research

☐ My check is enclosed.
☐ Please charge my credit card.
☑ Visa ☐ MasterCard ☐ AmEx ☐ Discover

Card #: ___________ ___________ ___________ ___________ Security Code: ___________

Name on Card: ___________________________ Exp. Date: ___________ ___________

Signature: ___________________________

Name: ___________________________

Address: ___________________________

City, State, Zip: ___________________________

Please make checks payable to Andrews University

Graduate Research Assistants

Effects of Exercise and Nutrition Education Program on the Health Related Quality of Life (HRQOL), 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)

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)