Projects supported by the Office of Research and Creative Scholarship, 2014–2015

Faculty Research Grant Recipients

Investigation of 1,3-Dipolar Cycloaddition Mechanisms: Synthesis of Thiolactomycin and Derivatives  
Lisa Ahlberg (Chemistry & Biochemistry)

Using What Jordan Field School Archaeology has Learned—for Education and Conservation of Plants, Water and Soil  
Stanley Beikmann (Agriculture)

Christ in the City: Incarnational Ministries that Transform Lives and Grow the Church  
Skip Bell (Church Ministry)

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

Being an American Adventist Pastor’s Husband: A Qualitative Study  
Romulus Chelbegean and Duane McBride (Behavioral Sciences)

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

Church members’ motivations and attitudes about giving to Adventist mission projects  
Petr Cinčala (World Mission) and Duane McBride (Behavioral Sciences)

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

Achieving Competence as a Clinical Instructor: The Lived Experience of Clinical Instructors  
Kim Ferreira (Physical Therapy)

Creation and Exhibition of “Proximity” painting series  
Kari Fristad (Visual Art & Design)

Characterization of manatee habitat and its use with side-scan sonar in Isla de La Juventud, Cuba  
Daniel Gonzalez (Biology)

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

Pilot Case Studies of North American Division Churches who are Attracting and Keeping Young Adults (18–30)  
Kenley Hall and Joseph Kidder (Church Ministry)

Structure Identification and Toxicity Assessment of an Arginine-based Heterocyclic Amine  
Ryan Hayes (Chemistry & Biochemistry)

Paleoecological Reconstruction of Protection Island, Washington  
James Hayward (Biology) and Shandellie Henson (Mathematics)

Apocyclic Inversions  
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)

How Does the Lexical Natization Affect Intelligibility in World Varied English? The Case of Japanese English (Katakana Eigo)  
Julia Kim (English)

Optical trapping of biological particles  
Hyun Kwon (Engineering & Computer Science)

Hesban 4: Ethnoarchaeological Foundations  
Asta LaBlanca (English)

Millennium Horizons in the Global History of the Ancient Near East  
Bystein LaBlanca (Behavioral Sciences)

“Shifting the Stress Curve:” Using “Stress Inoculation” and Exercise to Promote Resilience  
Pam Litvak (Behavioral Sciences) and Gregg Morrow (Public Health, Nutrition & Wellness)

Kenneth Logan (Music)

Examining host advantages of dengue viruses in a two-host cell culture system  
Kanya Long (Biology)

An analysis of protein folding mechanisms: a biology-chemistry-physics collaboration  
Peter Lyons (Biology), David Randall (Chemistry & Biochemistry), and Brendan Cross (Physics)

Modulation of Phonotaxis by Monoamines  
David Mmbungu (Biology)

Synthesis and Characterization of Conjugated Gold and Silver Nanoparticles with Sulfur Containing Amino Acids  
Getahun Merga (Chemistry & Biochemistry)

Nicholas Miller (Church History)

The Effects of Omega-3-Fatty Acids on Intracellular myo-Inositol  
Marlene Murray (Biological Sciences)

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

Preliminary investigation into the relationship between dendrimer structure and enzyme activity  
David Nowack (Chemistry & Biochemistry)

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

U.S. Domestically Held Public Debt and Economic Growth  
Marc Ullom (Accounting, Economics & Finance)

The Role of the Oncogene HER2/neu in breast cancer and potential therapeutic screening  
Denise Smith (Biological Sciences)

Gravitational waveform recovery for Advanced LIGO  
Tiffany Summerscales (Physics)

U.S. Domestic Public Debt and Economic Growth  
Lucile Sasas and Leroy Ruhupatty (Accounting, Economics & Finance)

The 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)

Exploring Possible Synergy in Weed Suppression with Multiple Strains of Deterritorial Rhizobacteria  
Robert Zdor (Biology)

Undergraduate Research Scholar Awardees

The thirteen-lined ground squirrel (Ictidomys tridecemlineatus) as a model system for investigation of carboxypeptidase O protein expression patterns  
Christian Barden (Peter Lyons, Biology)

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

Estimating Gravitational Wave Parameters for Advanced LIGO  
Belinda Cheeseboro (Tiffany Summerscales, Physics)

Religiosity as Relationship: Connection and Self-Protection Goals and the Internalization of Religion  
Cassandra Chlevin (Karl Bailey, Behavioral Sciences)

Man’s search for meaning: The case of Legos revisited  
Michael Choi (Harvey Burnett, Behavioral Sciences)

Characterization of naked noble metal nanoparticles before and after binding them to specific organic molecules and biomolecules  
Noah Chun (Getahun Merga, Chemistry & Biochemistry)

Trapping of micro-molecules and force measurement using the optical tweezers  
Alison Drew (Hyun Kwon, Engineering & Computer Science)

Subcloning, expression and purification of carboxypeptidase mutants  
Hazel Ezeribe (Peter Lyons, Biology)

Being a Pastor’s Husband  
Josias Flores and Amante Gonzalez (Romulus Chelbegean, Behavioral Sciences)

Changes in phonotactic behavior of female A. domestica are influenced by properties of specific auditory neurons  
ReJeanne Greene (Benjamin Nava, Biology)

The Effects of Eicosapentaenoic Acid on Growth of the Yeast Saccharomyces cerevisiae  
Yudy Guzman (Marlene Murray, Biology)

Religiosity & Perceived Stress Among College Students  
Cooper Hodges (Duane McBride, Behavioral Sciences)
### 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.

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### Graduate Research Assistants

- Pilot Case Studies of NAD Churches who are Attracting and Keeping Young Adults (18–30): Nathan Dubs, Kristy Hodson, Andrew Lee and Jonathan Moor (Kenley Hall and Joseph Kidder, Christian Ministry)
- Millennium Horizons in the Global History of the Ancient Near East: Jeffrey Hudon (Oystein LaBianca, Behavioral Sciences)
- Denominational Persistence and Denominational Exit Among Adventist University Alumni: Cheryl Logan and Adepeju Olaniyi (Larry Burton, Teaching, Learning & Curriculum)
- Effects of Exercise and Nutrition Education Program on the Health Related Quality of Life (HRQOL), Pelvic Pain and Incontinence, and Nutrition for Postpartum Women: Lindsey Machamer (Lori Walton, Physical Therapy; Maggie Hernandez and Gretchen Krivak, Public Health, Nutrition & Wellness)

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### Undergraduate Students Receiving External Funding

- RUI: Collaborative Research: Climate Change, Cannibalism, and Reproductive Synchrony: The Effect of Food Shortages on Life History Strategies of Marine Organisms (National Science Foundation):
  - Saharsh Dass, Julison Mendonca, Ashley Reichert, Zachary Reichert, Wadenerson Saint Martin, Athena Smith, Rashida Smith, WayAnne Watson, Whitney Watson, Sumiko Weir (James Hayward, Biology and Sandelle Henson, Mathematics)
- Musical Borrowing in Las cuatro estaciones portentosas: Piazzolla, Desyatnikov, Vivaldi
  - WayAnne Watson (Trina Thompson, Music)
- Forgiveness measures within Seventh-day Adventist interpersonal relationships: Lindsay White (Rachel Williams-Smith and Patrice Jones, Communication)
- Mechanism Analysis of Copper(I1) Ions Interacting with Dimethylaminocyanostilbene (DACS): Eui Bin (Eric) You (Ryan Hayes, Chemistry & Biochemistry)
- Stabilization of Aqueous Ascorbic Acid Solutions using PAMAM Dendrimers: Hyelin You (David Nowack, Chemistry & Biochemistry)

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### Undergraduate Students Receiving External Funding

- Dielectric electro active polymer (DEAP):
  - Cody Rieger (Boon-Chai Ng, Engineering & Computer Science)
- “The Story Which He Never Stops Telling Himself”: Bernard’s Selfhood and Storytelling in Virginia Woolf’s The Waves:
  - Melodie Roschman (Beverly Matioko, English/Communication)
- Exploring possible synergy in weed suppression with multiple deleterious rhizobacteria:
  - Athena Smith (Robert Zdor, Biology)
- NIR Spectroscopic and Titration-based Hydroxyl Number Analysis of PAMAM Dendrimers:
  - Seth Stacy (Ryan Hayes, Chemistry & Biochemistry)
- Direct Synthesis of Arginine-based Heterocyclic Amines:
  - Andrew Stewart (Ryan Hayes, Chemistry & Biochemistry)
- Demographic, psycho-social, and Religious Predictors of Suicide Attempts among Adolescents of a Conservative Religious Denomination: Iaac Suh (Lionel Matthews, Behavioral Sciences)
- 3-D scanning of pottery from Jalal and digital reconstruction of Roman and Early Christian ceramics from Sicily:
  - Krystal Uzuegbu (Randall Younker, Archaeology)
- Life Histories of Resilience from the Village of Hisban:
  - Doneva Walker (Oystein LaBianca, Behavioral Sciences)
- Zachary Reichert (Ryan Hayes, Chemistry & Biochemistry)
- Seropositive case mapping: Spatial risk of enzootic virus exposure in Amazonian Peru:
  - Viktoria Kolpacoff (Kenya Long, Biology)
- The Effect of Docosahexaenoic Acid on Intracellular Myo-inositol:
  - Shanelle Kim (Monique Pittman, English)
- Matlab Gui application for Optical trapping:
  - Rufaro Musvosvi (Hyun Kwon, Engineering & Computer Science)
- From Good to Great—An Action Research study to Improve the New Faculty Onboarding Experience:
  - Fonda Mwangi (James Hayward, Biology and Rashida Smith, Communication)
- Jonathan Edwards and Justification by Faith: A Critical Appraisal:
  - Aldar Nommik (Ante Jeroncic, Religion & Biblical Languages)
- Toxicity Assessment of Potentially Carcinogenic Arginine-Based Heterocyclic Amines:
  - Michael Plantak (Ryan Hayes, Chemistry & Biochemistry)
- Ames Test Optimization for Evaluating Mutagenicity of Arginine-Based Heterocyclic Amines:
  - Michael Plantak (Ryan Hayes, Chemistry & Biochemistry)
- Enhanced Isolation and Recovery of Potentially Carcinogenic Arginine-Based Heterocyclic Amines:
  - Shandelle Henson, Mathematics

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