

Curriculum Vitae

Dr. Daniel R. Jones

OFFICE:

Indiana Wesleyan University
Division of Natural Sciences
4201 South Washington Street
Marion, IN 46953
Telephone: 765-677-2296
Fax: 765-677-2455
E-mail: dan.jones@indwes.edu

HOME:

9389 Rockwood Court, Noblesville, IN 46060

PERSONAL:

Birthplace: Lafayette, IN
Date of birth: February 6, 1962
Marital Status: Married, two children

CAREER SUMMARY:

I am grateful for the opportunity to serve Christ at Indiana Wesleyan University, integrating my faith with my work in the biomedical field by teaching, advising, and engaging undergraduates in laboratory research.

EDUCATION:

1984 B.S. Biochemistry, Purdue University
1987 D.D.S., Indiana University School of Dentistry
1997 Ph.D., Biomedical Science, Wright State University

POSITIONS:

1987-1990 U.S. Air Force general dentist
1990-1991 Private practice dentist
1991-1997 Doctoral student/teaching assistant, Wright State University
1997-2000 Post-doctoral research fellow, Eli Lilly and Company
1999-2000 Adjunct pre-nursing physiology instructor, Indiana University-Purdue University at Indianapolis
2000-2002 Post-doctoral research scientist, Indiana University School of Medicine/Indiana University School of Dentistry
2000-2002 Adjunct first year dental student problem-based learning instructor, Indiana University School of Dentistry
2002-2006 Assistant Professor of Biology, Indiana Wesleyan University
2006-2011 Associate Professor of Biology, Indiana Wesleyan University
2011- Professor of Biology, Indiana Wesleyan University

HONORS AND AWARDS:

- 2006 Gallup Organization Strengths-Based Curriculum Implementation Award
- 2014 Indiana Wesleyan University Professor of the Year Award
- 2017 Indiana Wesleyan University Outstanding Teaching and Mentoring Award

SCIENTIFIC PRESENTATIONS:

- 2006 Poster presentation: *CD40 Ligand Reversal of Dexamethasone-Induced Osteoblast Apoptosis as Measured by a Colorimetric Caspase-3 Assay*, 121st Annual Indiana Academy of Science Fall Meeting, Ball State University, Muncie, Indiana
- 2007 Oral presentation: *A Bare Bones Update on Osteoporosis Research at IWU*, John Wesley Honors College Faculty Lecture Series
- 2008 Poster presentation: *CD40 Ligand Reversal of Dexamethasone-Induced Osteoblast Apoptosis as Measured by a Colorimetric Caspase-3 Assay*, Federation of American Societies for Experimental Biology Meeting, San Diego, California
- 2013 Oral Presentation: *Physiological Levels of the Potential Anti-Osteoporosis Agent, Reveromycin A, do not Induce Apoptosis or Necrosis of Chondrocytes at pH 7.4*, 128th Annual Indiana Academy of Science Meeting, Indianapolis, Indiana
- 2013 Oral Presentation: *Death Effects of Reveromycin A, A Potential Osteoporosis Treatment, on Chondrocytes and Synoviocytes of the Bone-Joint Microenvironment*, Fall 2013 Taylor University Science Lecture Series
- 2014 Oral Presentation: *Reveromycin A-Induced Apoptosis in Osteoclasts is not Accompanied by Necrosis*, 129th Annual Indiana Academy of Science Meeting, Indianapolis, Indiana
- 2014 Poster Presentation: *Reveromycin A-Induced Apoptosis in Osteoclasts is Accompanied by Decreased NF Kappa B Levels*, 2014 American Society for Pharmacology & Experimental Therapeutics Meeting, San Diego, California
- 2015 Poster Presentation: *Death Effects of Reveromycin A in Normal and Diseased Synoviocytes*, 2015 American Society for Pharmacology & Experimental Therapeutics Meeting, Boston, Massachusetts
- 2017 Oral Presentation: *Investigation of a Promising Osteoporosis Therapeutic: IWU Research Highlights*, Fall 2017 IWU Faculty Scholarship Symposium
- 2017 Oral Presentation: *Bone and Joint Research: IWU Highlights*, Fall 2017 IWU Science Forum
- 2019 Oral Presentation: *Rescue of Osteoblasts from Zoledronate-Induced Apoptosis, Necrosis, and Senescence*, Fall 2019 IWU Faculty Scholarship Symposium
- 2021 Poster Presentation: *SLC20/SLC34 Sodium-Dependent Phosphate Transporter Gene Expression in Human Oral Keratinocytes and Gingival Fibroblasts*, 136th Annual Indiana Academy of Science Meeting

MENTORED SCIENTIFIC PRESENTATIONS:

- 2004 2nd Annual IWU Celebration of Scholarship:
Optimization of an Apoptosis Assay for Osteoblasts, Kyle Anderson
- 2005 3rd Annual IWU Celebration of Scholarship:
Apoptosis in Osteoblasts: Investigating a Potential Treatment for Osteoporosis, Jolie Hoffman, Kyle Anderson, Amber Jones
- 2006 4th Annual IWU Celebration of Scholarship:
Osteoblast Apoptosis Inducers: A Factor in Osteoporosis, Carolyn Bainbridge
Colorimetric TUNEL Assays of MC3T3-E1 Osteoblasts: Visualizing Glucocorticoid Induced Apoptosis, Chana Hunter
CD40 Ligand Reversal of Dexamethasone-Induced Osteoblast Apoptosis as Measured by a Colorimetric Caspase-3 Assay, Amber Jones
TGF- β 1 Levels in Dexamethasone-Induced Apoptotic Cells, Chris Rose
Apoptosis Detection Through DNA Fragmentation, Michelle Stuttle
Bcl-X_L Levels in Apoptotic Osteoblasts: The Search for a Potential Role of Bcl-X_L in Protecting Osteoblasts from Glucocorticoid-Induced Apoptosis During CD40 Ligand Signalling, Brittany Wilkerson
DNA Isolation of Black-Capped, Carolina, and Hybrid Chickadee Blood, Jerica Derr
- 2006 19th Annual Butler University Undergraduate Research Conference:
CD40 Ligand Reversal of Dexamethasone-Induced Osteoblast Apoptosis as Measured by a Colorimetric Caspase-3 Assay, Amber Jones
- 2006 121st Indiana Academy of Science Fall Meeting:
Successful Use of Guava Technologies' Nexin Assay for Apoptosis Determination in MC3T3-E1 Cells, Carolyn Bainbridge
Bcl-X_L Levels in Apoptotic Osteoblasts: The Search for a Potential Role of Bcl-X_L in Protecting Osteoblasts from Glucocorticoid-Induced Apoptosis During CD40 Ligand Signalling, Brittany Wilkerson
Colorimetric TUNEL Assays of MC3T3-E1 Osteoblasts: Visualizing Glucocorticoid Induced Apoptosis, Chana Hunter
TGF- β 1 Levels in Dexamethasone-Induced Apoptotic MC3T3-E1 Cells, Chris Rose
Genomic DNA Isolation from Indiana Chickadee Species (Poecile sp.), Jerica Derr, Adam Thada
- 2007 5th Annual IWU Celebration of Scholarship:
Successful Use of Guava Technologies' Nexin Assay for Apoptosis Determination in MC3T3-E1 Cells, Carolyn Bainbridge
Bcl-X_L Levels in Apoptotic Osteoblasts: The Search for a Potential Role of Bcl-X_L in Protecting Osteoblasts from Glucocorticoid-Induced Apoptosis During CD40 Ligand Signalling, Brittany Wilkerson
Colorimetric TUNEL Assays of MC3T3-E1 Osteoblasts: Visualizing Glucocorticoid Induced Apoptosis, Chana Hunter
TGF- β 1 Levels in Dexamethasone-Induced Apoptotic MC3T3-E1 Cells, Chris Rose

- Does DNA Laddering Occur in the MC3T3-E1 Bone Tissue Culture Model Following Glucocorticoid-Induced Apoptosis? Jen Robinson
Genomic DNA Isolation from Indiana Chickadee Species (*Poecile sp.*), Jerica Derr, Adam Thada
- 2007 122nd Indiana Academy of Science Fall Meeting:
The Role of Protein Kinase B in CD40 Ligand-Mediated Prevention of Glucocorticoid-Induced Osteoblast Apoptosis, Chika Nwulu
*A Preliminary Analysis of Nucleotide Differences Among Indiana Chickadee Species (*Poecile sp.*) at the Mitochondrial Cytochrome B Gene Locus*, Brett Bishop
*Development of a Non-Radioisotopic Southern Blot Technique for Detecting Restriction Fragment Length Polymorphisms Among Indiana Chickadee Species (*Poecile sp.*) and Their Hybrids at the C7 Homology Locus*, Matt Zuellig
- 2008 6th Annual IWU Celebration of Scholarship:
*A Preliminary Analysis of Nucleotide Differences Among Indiana Chickadee Species (*Poecile sp.*) at the Mitochondrial Cytochrome B Gene Locus*, Brett Bishop
Development of a Non-Radioisotopic Southern Blot Technique Detecting Restriction Fragment Length Polymorphisms Among Indiana Chickadee Species and Their Hybrids at the Mitochondrial Cytochrome B Locus, Matt Zuellig
The Role of TGF- β 1 in Osteoblasts in Glucocorticoid-Induced Osteoporosis, Kristen Shafer
Apoptosis in Osteoblasts Treated with Dexamethasone and CD40 Ligand, Bethany Kline
The Role of Protein Kinase B in CD40 Ligand-Mediated Prevention of Glucocorticoid-Induced Osteoblast Apoptosis, Chika Nwulu
Dexamethasone-Induced Apoptosis can be Detected in MC3T3-E1 Mouse Osteoblasts using Promega Corporation's Caspase-3 Activity Assay, Dan Seitz
Effects of Estrogen on Osteoclast Apoptosis, Chris Sloan and Laura Tedeschi
- 2009 7th Annual Celebration of Scholarship:
An Investigation of the In Vitro Induction of Osteoclast Apoptosis Related to the Treatment of Osteoporosis by Estrogen, Reveromycin A, and Orientin, Laura Tedeschi
Apoptosis in Osteoblasts Treated with Dexamethasone and CD40 Ligand, Bethany Kline
NF- κ B Inhibition and Osteoporosis, Brittany Mead
The Role of Bcl-xL in the Apoptosis of Osteoblasts and Osteoclasts, Spenser Lang
The Validity of TRAP Staining for Interpreting Differentiation of RAW264.7 Cells by RANKL, Josh Pattengale
The Signal Transduction Pathway of Tumor Necrosis Factor α -as it Relates to Osteoclastogenesis, Jordan Mast

- 2009 124th Annual Indiana Academy of Science Fall Meeting:
Preliminary Investigation of Apoptosis Induction in Osteoclasts by the Flavonoid, Glucoluteolin, Heather Morgan
- 2010 8th Annual Celebration of Scholarship:
Osteoporosis and Apoptosis, Megan Gragg
The Role of I κ B α in Reveromycin A-Induced Osteoclast Apoptosis, Brittany Mead
The Role of NF- κ B/I κ B α in the Regulation of Osteoclast Survival, Kaitlin Riemann
Use of an LDH Release Assay for Measuring Necrosis in Osteoclasts and Osteoblasts, Cory Hines
Preliminary Investigation of Apoptosis in Osteoclasts by the Flavonoid, Glucoluteolin, Heather Morgan
Characterization of Bone Cells in Osteoporosis: Use of the Bradford Assay in Cell Extract Protein Quantitation, Chris Devries
Effect of Bcl-X_L on Osteoclast Survival and Function, Spenser Lang
MC3T3-E1 Cells Treated with the Bisphosphonate, Alendronate, Show Signs of Necrosis, Ben Kawsy
The Role of Bcl-XL in the Regulation of Apoptosis in Bone Cells, Katie Shull
- 2011 126th Annual Indiana Academy of Science Meeting, Oral Presentations:
Caspase 3 Activity Increases in Reveromycin A-Treated Murine Osteoclasts, Megan Gragg
Reveromycin A-Induced Apoptosis in Osteoclasts is not Accompanied by Necrosis, Cory Hines
Western Blot Analysis of Potential Mediators of Reveromycin A-Induced Apoptosis in Osteoclasts, Kaitlin Riemann
- 2011 9th Annual Celebration of Scholarship, Natural Sciences Symposium, Oral Presentations:
Electrophoretic Mobility Shift Assay Control Tests to Confirm Binding of Protein to DNA, Emily Boyd and Tyler Derr
Caspase 3 Activity Increases in Reveromycin A-Treated Murine Osteoclasts, Megan Gragg
Reveromycin A-Induced Apoptosis in Osteoclasts is not Accompanied by Necrosis, Cory Hines
Western Blot Analysis of Potential Mediators of Reveromycin A-Induced Apoptosis in Osteoclasts, Kaitlin Riemann
The Effects of Reveromycin A on Healthy Equine Chondrocytes, Katie Shull
- 2011 9th Annual Celebration of Scholarship, Natural Sciences Symposium, Poster Presentations:
Reveromycin A-Induced Apoptosis in Osteoclasts is not Accompanied by Necrosis, Cory Hines
MC3T3-E1 Cells Treated with the Bisphosphonate, Alendronate, Show Signs of Necrosis, Ben Kawsy

- Western Blot Analysis of Potential Mediators of Reveromycin A-Induced Apoptosis in Osteoclasts*, Kaitlin Riemann
The Effects of Reveromycin A on Healthy Equine Chondrocytes, Katie Shull
Characterization of the Mechanism of Reveromycin A-Induced Apoptosis in Osteoclasts, Jonathan Stofer
- 2011 Hodson Summer Research Institute Colloquium Presentations:
Investigation of a Potential Bone-Preserving Agent for Osteoporosis Treatment, Reveromycin A, Tyler Derr (Power Point talk) and Jon Stofer (poster)
- 2012 10th Annual Celebration of Scholarship, Natural Sciences Symposium, Oral Presentations:
Successful Western Blot Visualization of NF κ B and β -actin Loading Control Signals from Osteoclasts, David Collins and Paul Landis
Investigation of Reveromycin A-Induced Cell Death Effects in Chondrocytes, Lauren Nugent and Ryan Saba
Successful Visualization of NF κ B-DNA Complex Formation: Using the Electrophoretic Mobility Shift Assay, Tyler Derr and Emily Boyd
- 2012 10th Annual Celebration of Scholarship, Natural Sciences Symposium, Poster Presentations:
Optimization of NF κ B Western Blot Signal in Reveromycin A-Treated Osteoclasts, David Collins
Optimization of a β -actin Western Blot Loading Control in Reveromycin A-Treated Osteoclasts, Paul Landis
Characterization of Cell Death Effects in Reveromycin A-Treated Mouse Chondrocytes, Lauren Nugent
Optimization of the ATDC5 Mouse Chondrocyte Line for Studying Potential Reveromycin A-Induced Cell Death, Ryan Saba
- 2012 13th Annual American Chemical Society, Indiana Chapter Meeting, Poster Presentation:
Investigating the Effect of Reveromycin A, a Potential Osteoporosis Treatment, on Cartilage Cells of the Bone-Joint Microenvironment, Ellen Steinke
- 2012 Hodson Summer Research Institute Colloquium Presentations:
Investigating the Effect of Reveromycin A, a Potential Osteoporosis Treatment, on Cartilage Cells of the Bone-Joint Microenvironment, Ellen Steinke, (Power Point talk and poster)
- 2013 11th Annual Celebration of Scholarship, Oral Presentations:
Reveromycin A Does Not Cause Apoptosis or Necrosis in the ATDC5 Chondrocyte Cell Line at Physiological pH, Kelsey Davitt
Murine Chondrocytes do not Exhibit Significant Apoptosis when Treated with Reveromycin A as Measured by the TUNEL Assay, Emily Sloane

- Investigation of a Mevalonate Pathway Metabolite for Rescue from Bisphosphonate-Related Osteonecrosis of the Jaw*, Brooke Johnson (Awarded Outstanding Natural Sciences Presentation)
- 2013 11th Annual Celebration of Scholarship, Poster Presentations:
Reveromycin A Does Not Cause Apoptosis or Necrosis in the ATDC5 Chondrocyte Cell Line at Physiological pH, Kelsey Davitt and Ellen Steinke
Murine Chondrocytes do not Exhibit Significant Apoptosis when Treated with Reveromycin A as Measured by the TUNEL Assay, Emily Sloane and Ellen Steinke
Investigation of a Mevalonate Pathway Metabolite for Rescue from Bisphosphonate-Related Osteonecrosis of the Jaw, Brooke Johnson and Ben Kawsy
- 2013 Hodson Summer Research Institute Colloquium Presentations:
Death Effects of Reveromycin A in Chondrocytes and Synoviocytes, Haley Svrčina, (Poster)
Use of Geranylgeraniol to Rescue Osteoblasts and Periodontal Ligament Fibroblasts from Zoledronate-Induced Cell Death, Calli Williams (Poster)
- 2014 129th Annual Indiana Academy of Science Meeting Oral Presentations:
Investigation of Geranylgeraniol Use to Reverse Zoledronate-Induced Death Effects in Human Periodontal Ligament Fibroblasts, Travis Landis and Jacob Kellner
Death Effects of Reveromycin A in Chondrocytes and Synoviocytes, Haley Svrčina
Use of Geranylgeraniol to Rescue Osteoblasts and Periodontal Ligament Fibroblasts from Zoledronate-Induced Apoptosis, Calli Williams
- 2014 12th Annual Celebration of Scholarship, Oral Presentations:
Investigation of Geranylgeraniol Use to Reverse Zoledronate-Induced Death Effects in Human Periodontal Ligament Fibroblasts, Travis Landis and Jacob Kellner
Death Effects of Reveromycin A in Chondrocytes and Synoviocytes, Haley Svrčina
Use of Geranylgeraniol to Rescue Osteoblasts and Periodontal Ligament Fibroblasts from Zoledronate-Induced Apoptosis, Calli Williams
- 2014 12th Annual Celebration of Scholarship, Poster Presentation:
Investigation of Geranylgeraniol Use to Reverse Zoledronate-Induced Death Effects in Human Periodontal Ligament Fibroblasts, Travis Landis
- 2014 2014 American Society for Pharmacology & Experimental Therapeutics Meeting, Poster Presentations:
Death Effects of Reveromycin A in Chondrocytes and Synoviocytes, Haley Svrčina

- 2014 *Use of Geranylgeraniol to Rescue Osteoblasts and Periodontal Ligament Fibroblasts from Zoledronate-Induced Apoptosis*, Calli Williams
 Hodson Summer Research Institute Colloquium Presentations:
Investigation of MMP-13 and Cathepsin K Gene Expression in Equine Cartilage, Luke Hayden (Poster)
Reveromycin A-Induced Apoptosis in Osteoclasts is Not Accompanied by Necrosis, Alyssa Mann (Poster)
Death Effects of Reveromycin A in Normal and Diseased Synoviocytes, Haley Svrčina (Poster)
- 2015 *Use of Geranylgeraniol to Rescue Osteoblasts and Periodontal Ligament Fibroblasts from Zoledronate-Induced Cell Death*, Calli Williams (Poster)
 130th Annual Indiana Academy of Science Meeting Poster Presentations:
Investigation of MMP-13 and Cathepsin K Gene Expression in Equine Cartilage, Luke Hayden and Matt Eckhardt
Death Effects of Reveromycin A in Normal and Diseased Synoviocytes, Haley Svrčina and Austin Greer
Use of Geranylgeraniol to Rescue Osteoblasts, Periodontal Ligament Fibroblasts, and Oral Keratinocytes from Zoledronate-Induced Cell Death, Calli Williams and Jacob Kellner
- 2015 13th Annual IWU Celebration of Scholarship Presentations:
Investigation of MMP-13 and Cathepsin K Gene Expression in Equine Cartilage, Luke Hayden and Matt Eckhardt (Oral)
Death Effects of Reveromycin A in Normal and Diseased Synoviocytes, Haley Svrčina (Poster)
Use of Geranylgeraniol to Rescue Osteoblasts, Periodontal Ligament Fibroblasts, and Oral Keratinocytes from Zoledronate-Induced Cell Death, Calli Williams and Jacob Kellner (Oral and Poster)
- 2015 Hodson Summer Research Institute Colloquium Presentations:
Zoledronate-Induced Death Effects in Normal Human Oral Keratinocytes, Terry Beal (Poster)
Investigation of Cathepsin K Gene Expression in Equine Cartilage, Christian Cuevas (Poster)
Extended Time Course of Reveromycin A Death Effects in Normal Chondrocytes and Synoviocytes, Austin Greer (Poster)
- 2016 14th Annual IWU Celebration of Scholarship Presentations:
Cathepsin K Gene Expression Measurement in Cartilage-Forming Cells, Seth Baker (Poster)
Death Effects of Reveromycin A, A Potential Osteoporosis Therapeutic, in Cells of the Joint, Austin Greer (Poster)
Death Effects of Reveromycin A, A Potential Osteoporosis Therapeutic, in Cells of the Joint, Nathan Granger, Austin Greer, and Patricia Martinez (Oral)
Cathepsin K Gene Expression Measurement in Cartilage-Forming Cells, Luke Hayden, Seth Baker, Christian Cuevas (Oral)
Zoledronate-Induced Death Effects in Human Oral Keratinocytes, Ryan Smith, Zach Zylstra (Oral)

- 2016 Hodson Summer Research Institute Colloquium Presentation:
Death Effects of Reveromycin A, a Potential Osteoporosis Therapeutic, in Cells of the Joint Lining, Seth Baker and Morgan Smith (Poster)
- 2017 132nd Annual Indiana Academy of Science Meeting Poster Presentations:
Cathepsin K Gene Expression Measurement in Equine Chondrocytes, Christian Cuevas
Characterization of Apoptosis and Necrosis Induced by Reveromycin A, a Potential Bone Anti-Resorptive Agent, in Normal Cells of the Joint, Patricia Martinez
Use of Geranylgeraniol to Rescue Osteoblasts, Periodontal Ligament Fibroblasts, and Oral Keratinocytes from Zoledronate-Induced Cell Death, Ryan Smith and Sammy Oberholtzer
- 2017 15th Annual IWU Celebration of Scholarship Presentations:
Cathepsin K Gene Expression Measurement in Equine Chondrocytes, Christian Cuevas (Poster)
Characterization of Apoptosis and Necrosis Induced by Reveromycin A, a Potential Bone Anti-Resorptive Agent, in Normal Cells of the Joint, Patricia Martinez (Poster)
Death Effects of Reveromycin A, a Potential Osteoporosis Therapeutic, in Normal and Disease-Associated Cells of the Joint, Patricia Martinez, Morgan Smith, and Natassja Thomas (Oral)
Death Effects of Reveromycin A in Diseased Synoviocytes of the Arthritic Joint, Morgan Smith (Poster)
Zoledronate-Induced Death Effects in Human Oral Keratinocytes, Ryan Smith (Oral)
Use of Geranylgeraniol to Rescue Osteoblasts, Periodontal Ligament Fibroblasts, and Oral Keratinocytes from Zoledronate-Induced Cell Death, Ryan Smith and Sammy Oberholtzer (Poster)
Reveromycin A, a Potential Osteoporosis Therapeutic, Induces Apoptosis in Normal Synoviocytes Through a Mechanism Independent of Caspase 8 and 9, Natassja Thomas (Poster)
- 2017 Hodson Summer Research Institute Colloquium Presentations:
Rescue of Human Oral Keratinocytes from a Bone Cancer Drug Side Effect: Zoledronate-Induced Necrosis Rescue, Ethan Blake (Poster)
Rescue of Human Oral Keratinocytes from a Bone Cancer Drug Side Effect: Zoledronate-Induced Apoptosis Rescue, Jesse Maguire (Poster)
Rescue of Human Oral Keratinocytes from a Bone Cancer Drug Side Effect: Zoledronate-Induced Senescence Rescue, Preston Rippe (Poster)
- 2017 West Michigan Regional Undergraduate Science Research Conference Poster Presentations:
Rescue of Human Oral Keratinocytes from a Bone Cancer Drug Side Effect: Zoledronate-Induced Necrosis Rescue, Ethan Blake
Rescue of Human Oral Keratinocytes from a Bone Cancer Drug Side Effect: Zoledronate-Induced Apoptosis Rescue, Jesse Maguire

- 2018 *Rescue of Human Oral Keratinocytes from a Bone Cancer Drug Side Effect: Zoledronate-Induced Senescence Rescue*, Preston Rippe
133rd Annual Indiana Academy of Science Meeting Poster Presentations:
Rescue of Human Oral Keratinocytes from a Bone Cancer Drug Side Effect: Zoledronate-Induced Necrosis Rescue, Ethan Blake and Morgan Smith
Rescue of Human Oral Keratinocytes from a Bone Cancer Drug Side Effect: Zoledronate-Induced Apoptosis Rescue, Jesse Maguire
Improving Bone Health Knowledge in Selected Age 9-12 Indiana Students, Jaylin Miller and Alison Henry
- 2018 *Rescue of Human Oral Keratinocytes from a Bone Cancer Drug Side Effect: Zoledronate-Induced Senescence Rescue*, Preston Rippe
16th Annual IWU Celebration of Scholarship Presentations:
Rescue of Human Oral Keratinocytes from a Bone Cancer Drug Side Effect: Zoledronate-Induced Necrosis Rescue, Ethan Blake and Morgan Smith (Poster)
Rescue of Human Oral Keratinocytes from a Bone Cancer Drug Side Effect: Zoledronate-Induced Apoptosis Rescue, Jesse Maguire (Poster)
Improving Bone Health Knowledge in Selected Age 9-12 Indiana Students, Jaylin Miller (Oral and Poster)
- 2018 *Rescue of Human Oral Keratinocytes from a Bone Cancer Drug Side Effect: Zoledronate-Induced Senescence Rescue*, Preston Rippe (Poster)
Hodson Summer Research Institute Colloquium Presentation:
Rescue of Zoledronate-Induced Death in Normal Human Oral Keratinocytes, Jacob Kirby (Poster)
- 2018 West Michigan Regional Undergraduate Science Research Conference Poster Presentation:
Rescue of Zoledronate-Induced Death in Normal Human Oral Keratinocytes, Jacob Kirby
- 2018 Co-Mentored Completion of Graduate Master's Degree of Dental Science Thesis:
Assessment of Senescence in an Oral Mucosal Model Treated with Bisphosphonate, Nur Bashira Binti Shaharuddin, Department of Restorative Dentistry, University of Malaysia, Kuala Lumpur, May 2018.
- 2019 17th Annual IWU Celebration of Scholarship Presentations:
Rescue of Osteoblasts from Zoledronate-Induced Apoptosis, Necrosis, and Senescence, Ethan Blake (Poster and Talk)
Rescue of Zoledronate-Induced Death in Normal Human Oral Keratinocytes, Jacob Kirby (Poster)
Rescue of Human Oral Keratinocytes from a Bone Cancer Drug Side Effect: Zoledronate-Induced Apoptosis Rescue, Jesse Maguire (Poster)
Rescue of Human Oral Keratinocytes from a Bone Cancer Drug Side Effect: Zoledronate-Induced Senescence Rescue, Preston Rippe (Poster)

- 2019 Hodson Summer Research Institute Colloquium Presentation:
Rescue of Human Oral Keratinocytes from a Bone Cancer Drug Side Effect: Determination of Three Candidate Rescue Agent Doses,
Tyler Cairncross (Poster)
- 2019 West Michigan Regional Undergraduate Science Research Conference
Poster Presentation:
Rescue of Human Oral Keratinocytes from a Bone Cancer Drug Side Effect: Determination of Three Candidate Rescue Agent Doses,
Tyler Cairncross
- 2020 18th Annual IWU Celebration of Scholarship Poster Presentations (Virtual):
Viability Rescue of Zoledronate-Treated Osteoblasts: A Comparison of Geranylgeraniol and Sodium Citrate
Morgan Jessup
Optimization of a Viability Rescue Assay in Human Oral Keratinocytes
Jessica Binkley, Abigail Conrad, and Makayla Standfest
Zoledronate-Induced Viability Loss: Determination of Rescue Agent Dosages in Human Oral Keratinocytes
Jacob Kirby
Viability Rescue of Zoledronate-Treated Osteoblasts: A Comparison of Geranylgeraniol and Phosphonoformic Acid
Spencer Roose
- 2020 18th Annual IWU Celebration of Scholarship Oral Presentations (Virtual):
Zoledronate-Induced Viability Loss: Determination of Rescue Agent Dosages in Human Oral Keratinocytes
Tyler Cairncross
Should Preoperative Fascia Iliaca Block Be Used for Hip Arthroscopic Labral Repair and Femoroacetabular Impingement Treatment? A Prospective Single Blinded Randomized Study
Alison Henry
- 2020 West Michigan Regional Undergraduate Science Research Conference
(Virtual) Poster Presentations:
Dose Optimization of Potential Topical Compounds for Treating Bisphosphonate-Related Osteonecrosis of the Jaw: Dose-Response Curve Determinations in Human Oral Keratinocytes and Gingival Fibroblasts
Charles Barnes
Rescue of Human Oral Keratinocytes and Gingival Fibroblasts from Zoledronate-Induced Viability Loss: Inroads to Lessening a Bone-Cancer Drug Side Effect
Evan Brown
Endocytosis Inhibition as a Rescue Strategy for Zoledronate-Induced Cell Death
Alex Cartwright

- 2021 136th Annual Indiana Academy of Science Meeting Poster Presentations:
Geranylgeraniol, Not Phosphonoformic Acid, Partially Rescues Human Gingival Fibroblasts From Zoledronate-Induced Death
Jessica Binkley
Rescue of Human Oral Keratinocytes and Gingival Fibroblasts from Zoledronate-Induced Viability Loss: Inroads to Lessening a Bone-Cancer Drug Side Effect
Evan Brown
Endocytosis Inhibition as a Rescue Strategy for Zoledronate-Induced Cell Death
Alex Cartwright
Optimization of a Viability Rescue Assay in Human Oral Keratinocytes
Abigail Conrad
Dynasore, A Dynamin Inhibitor, Prevents Zoledronate-Induced Human Gingival Fibroblast Death
Makayla Standfest
- 2021 19th Annual IWU Celebration of Scholarship Poster Presentations:
Geranylgeraniol, Not Phosphonoformic Acid, Partially Rescues Human Gingival Fibroblasts From Zoledronate-Induced Death
Jessica Binkley
Rescue of Human Oral Keratinocytes and Gingival Fibroblasts from Zoledronate-Induced Viability Loss: Inroads to Lessening a Bone-Cancer Drug Side Effect
Evan Brown
Endocytosis Inhibition as a Rescue Strategy for Zoledronate-Induced Cell Death
Alex Cartwright
Optimization of a Viability Rescue Assay in Human Oral Keratinocytes
Abigail Conrad
Dynasore, A Dynamin Inhibitor, Prevents Zoledronate-Induced Human Gingival Fibroblast Death
Makayla Standfest
- 2021 19th Annual IWU Celebration of Scholarship Oral Presentations:
Compound Comparison Analysis for Human Gingival Fibroblast Viability Rescue: A Step Toward Prevention of the BRONJ Side Effect in Patients With Cancer Metastasis to Bone
Jessica Binkley and Makayla Standfest
Optimization of a Viability Rescue Assay in Human Oral Keratinocytes
Abigail Conrad
- 2021 Hodson Summer Research Institute Colloquium Presentations:
Investigation of Compounds for Rescue of Human Gingival Fibroblasts From Zoledronate-Induced Death: A Step Toward the Treatment of Medication-Related Osteonecrosis of the Jaw
Danielle Dadisman

- Visualization and Quantitation of TRITC-Dextran Uptake in Human Gingival Fibroblasts*
Colten Mowat
Confocal Fluorescence Microscopy Visualization of Human Gingival Fibroblast Plasma Membrane with DiO Lipophilic Dye
Daniel Wilmot
- 2021 West Michigan Regional Undergraduate Science Research Conference (Virtual) Poster Presentation:
Confocal Fluorescence Microscopy Visualization of Human Gingival Fibroblast Plasma Membrane with DiO Lipophilic Dye
Daniel Wilmot
- 2022 20th Annual IWU Celebration of Scholarship Poster Presentations:
Inhibition of Endosomal Acidification Prevents Zoledronate-Induced Viability Loss in Human Gingival Fibroblasts
Evan Brown, Alex Cartwright, Colten Mowat, Danielle Dadisman, Conner Murphy, Teddy Houseman
Analysis of Rescue From Zoledronate-Induced Death in Human Gingival Fibroblasts
Danielle Dadisman, Colten Mowat, Daniel Wilmot
- 2022 20th Annual IWU Celebration of Scholarship Oral Presentation:
Inhibition of Endosomal Acidification Prevents Zoledronate-Induced Viability Loss in Human Gingival Fibroblasts
Evan Brown, Alex Cartwright
- 2022 Hodson Summer Research Institute Colloquium Presentation:
Optimization of a CellProfiler™ Software Pipeline to Quantitate Fluorescently-Labeled Zoledronate Distribution in Human Gingival Fibroblasts
Teddy Houseman, Conner Murphy
- 2023 21st Annual IWU Celebration of Scholarship Presentations:
Visualization and Quantitation of TRITC-Dextran Uptake in Human Gingival Fibroblasts (Oral and poster presentations)
Colten Mowat
Endocytosis Inhibition as a Rescue Strategy for Zoledronate-Induced Cell Death (Oral and poster presentations)
Alex Cartwright
Optimization of a CellProfiler™ Software Pipeline to Quantitate Fluorescently-Labeled Zoledronate Distribution in Human Gingival Fibroblasts (Oral presentation)
Teddy Houseman, Conner Murphy
Optimization of a CellProfiler™ Software Pipeline to Quantitate Fluorescently-Labeled Zoledronate Distribution in Human Gingival Fibroblasts (Poster presentation)
Conner Murphy

Optimization of a CellProfiler™ Software Pipeline to Quantitate Fluorescently-Labeled TRITC Dextran Endosomal Marker Distribution in Human Gingival Fibroblasts

- 2023 Teddy Houseman (Poster presentation)
Hodson Summer Research Institute Colloquium Presentation:
Investigation of Compounds for Prevention of Zoledronate-Induced Viability Loss in Osteoblasts and Osteoclasts
- 2024 Caleb Engelsman, Josh Haller (Poster presentation)
22nd Annual IWU Celebration of Scholarship Presentations:
Investigation of Compounds for Prevention of Zoledronate-Induced Viability Loss in Osteoblasts and Osteoclasts
Caleb Engelsman, Josh Haller (Poster presentation)
The Dynamin Inhibitor, Dynasore, Prevents Zoledronate-Induced Viability Loss in Human Gingival Fibroblasts by Inhibiting Endosomal Acidification
- 2024 Caleb Engelsman, Josh Haller (Oral presentation)
Hodson Summer Research Institute Colloquium Presentations:
Investigation of Histatin-1 Effects on Migration and Spreading in Zoledronate-Treated Human Gingival Fibroblasts
Ethan White, Daniella Joseph, Chloe Yoder, Kaiden Slater (Poster presentation)
Preliminary Investigation of Histatin-1 Effects on Zoledronate-Induced Apoptosis in Human Gingival Fibroblasts
Chloe Yoder, Kaiden Slater, Ethan White, Daniella Joseph (Poster presentation)

PROFESSIONAL MEMBERSHIP:

- 2003- Indiana Academy of Science
2011 Cell Biology Section Co-Chair, 126th Annual Indiana Academy of Science Meeting, Indianapolis, Indiana
2012- Christian Medical & Dental Associations
2013- American Society for Pharmacology & Experimental Therapeutics

CONFERENCES AND WORKSHOPS:

- 2003 Attended IWU Teaching Workshops—*Introduction to Blackboard Technology, Writing World Changing Outcomes, and Teaching Tips*
- 2004 Attended CCCU National New Faculty Workshop
- 2004 Attended Indiana University School of Medicine Premedical Advisor's Conference
- 2005 Attended IWU Teaching Workshop—*Faculty Guide to Helping Emotionally Distressed Students*
- 2005 Attended 12th Annual Conference on Bioethics—*Genetic & Reproductive Ethics: The Scientific Cutting Edge & The Everyday Healthcare Challenges*, Trinity International University Center for Bioethics and Human Dignity
- 2005 Attended Taylor University's Technology for Teaching Conference

- 2007 Attended IWU Teaching Workshops—*Are You Getting the IDEA?* and *Mentoring*
- 2008 Attended NACADA (National Academic Advising Association) Academic Advising Summer Institute, Austin, Texas
- 2008 Attended Taylor University's Technology for Teaching Conference
- 2009 Led an IWU Faculty Development Workshop: *Workshop for Improving the Advising Experience at IWU*
- 2010 Led an IWU Faculty Development Workshop: *Advising the Wildcat Way*
- 2010 Attended Indiana University School of Medicine Premedical Advisor's Conference
- 2011 Attended IWU "The Pedagogy of Faith in the Science Classroom" Conference
- 2011 Attended the 2011 Global Missions Health Conference, Louisville, Kentucky, taking 25 IWU undergraduates
- 2012 IWU Center for Learning and Innovation, successful completion of Learning Academy 102: Assessment of Student Learning
- 2012 School of Physical and Applied Sciences Faculty Retreat—Pre-Med Advising Update
- 2012 Attended Indiana University School of Medicine Premedical Advisor's Conference
- 2012 Attended the 2012 Global Missions Health Conference, Louisville, Kentucky, taking 11 IWU undergraduates
- 2013 Attended the 2013 Global Missions Health Conference, Louisville, Kentucky, taking 6 IWU undergraduates
- 2014 Attended the 2014 Global Missions Health Conference, Louisville, Kentucky, taking 10 IWU undergraduates
- 2018 Presenter and Leader, Biology Break Out Session, Annual Indiana CCCU Faith-Learning Integration Faculty Group Meeting

PUBLICATIONS:

Original Research Articles

Jones, Daniel R. and Leffak, Michael. A Bifunctional Regulatory Element of the Human ApoA-1 Gene Responsive to a Distal Enhancer. *DNA & Cell Biology*, February 1999, 18(2):107-19.

Jones, Daniel R., Schmidt, Robert J., Pickard, Richard T., Foxworthy, Patricia S., and Eacho, Patrick I. Estrogen Receptor-Mediated Repression of Human Hepatic Lipase Gene Transcription, *Journal of Lipid Research*, 2002, 43:383-391.

Shah R., Alvarez M., **Jones D. R.**, Torrunguang K., Watt A. J., Selvamurugan N., Partridge N. C., Quinn C. O., Pavalko F. M., Rhodes S. J., Bidwell J. P. Nmp4/CIZ Regulation of Matrix Metalloproteinase 13 (MMP-13) Response to Parathyroid Hormone in Osteoblasts, *American Journal of Physiology—Endocrinology & Metabolism*, 2004, 287:289-296.

Mead, B., Morgan, H., Mann, A., Tedeschi, L., Sloan, C., Lang, S., Hines, C., Gragg, M., Stofer, J., Reimann, K., Derr, T., Heller, E., Collins, D., Landis, P., Linna, N., and **Jones, D.** Reveromycin A-Induced Apoptosis in Osteoclasts is Not Accompanied by Necrosis, *Journal of Cellular Biochemistry*, 2015,116(8):1646- 1657.

Svrcina, H., Greer, A., Baker, S., Smith, M., Martinez, P., Granger, N., Thomas, T., Miller, J., Steinke, E., Davitt, K., Sloane, E., Nugent, L., Sabo, R., Williams C., Lipton, M., and **Jones, D.** Death Effects of Reveromycin A in Normal and Disease-Associated Cells of the Joint, *Journal of Cellular Biochemistry*, 2018; 119 (6): 4382-4396.

Nur Bashira Shaharuddin, **Daniel Jones**, Wen Lin Chai. The Senescence Effect of Zoledronate on Three-Dimensional Oral Mucosa Model, *Sains Malaysiana*, 2022, 51(4): 1131-1142. <http://doi.org/10.17576/jsm-2022-5104-15>.

Jacob Kirby, Makayla Standfest, Jessica Binkley, Charles Barnes, Evan Brown, Tyler Cairncross, Alex Cartwright, Danielle Dadisman, Colten Mowat, Daniel Wilmot, Theodore Houseman, Conner Murphy, Caleb Engelsman, Josh Haller, **Daniel Jones.** The Dynamin Inhibitor, Dynasore, Prevents Zoledronate-Induced Viability Loss in Human Gingival Fibroblasts by Partially Blocking Zoledronate Uptake and Inhibiting Endosomal Acidification, *Journal of Applied Oral Science*, 2024, 32: <http://dx.doi.org/10.1590/1678-7757-2024-0224>.

Original Teaching Articles and Resources

Jones, Daniel R. Biology 102 Lab Manual, August 2005.

Jones, Daniel R. Case Study: Using Microbe Molecular Biology for Gulf Oil Spill Clean Up, *Biochemistry and Molecular Biology Education*, 2011, 39(2): 157-164.

Research Abstracts

Jones, D. and Leffak, M. A Negative Regulatory Element of the Human Apolipoprotein A1 Gene, *The FASEB Journal*, April 19, 1994, 8(7):A1335.

Jones, D., Schmidt, R., Pickard, T., and Eacho, P. Dose-dependent Repression of Hepatic Lipase Gene Transcription by 17 β -estradiol, *The FASEB Journal*, May 11, 2000, 14(8):A1340.

Jones, D., Torrungruang, K., Selvamurugan, N., Partridge, N., and Bidwell, J. Nmp4, a Nuclear Matrix Transcription Factor, Contributes to MMP-13 Transcription in Osteoblasts and Fibroblasts, *Molecular Biology of the Cell*, November 2001 Supplement, 12:496A.

Steinke, E. and **Jones, D.** Investigating the Effect of Reveromycin A, a Potential Osteoporosis Treatment, on Cartilage Cells of the Bone-Joint Microenvironment, *13th Annual American Chemical Society Indiana Chapter Meeting Poster Presentations Program*, Fall 2012.

Haley Svrcina, Ellen Steinke, Kelsey Davitt, Emily Sloane, Calli Williams, and **Dan Jones**, Death Effects of Reveromycin A in Chondrocytes and Synoviocytes, *FASEB J* April 2014 28:663.14.

Dan Jones, Brittany Mead, Heather Morgan, Laura Tedeschi, Chris Sloan, Spenser Lang, Cory Hines, Megan Gragg, Jonathan Stofer, Kaitlin Riemann, Tyler Derr, Emily Heller, David Collins, Paul Landis, and Nathan Linna, Reveromycin A-Induced Apoptosis in Osteoclasts is Accompanied by Decreased NF Kappa B Levels, *FASEB J* April 2014 28:663.15.

Calli Williams, Brooke Johnson, Haley Svrcina, Ben Kawsy, and **Dan Jones**, Use of Geranylgeraniol to Rescue Osteoblasts and Periodontal Ligament Fibroblasts from Zoledronate-Induced Apoptosis, *FASEB J* April 2014 28:663.16.

Dan Jones, Haley Svrcina, Ellen Steinke, Kelsey Davitt, Emily Sloane, Austin Greer, and Calli Williams, Death Effects of Reveromycin A in Normal and Diseased Synoviocytes, *FASEB J* April 2015 29:936.11.

S. Bashira, W.L. Chai, and **D.R. Jones**, Tissue Engineering of Normal Immortalized Oral Keratinocytes (OKF6) Co-Cultured at an Air-Liquid Interface with Normal Human Primary Oral Fibroblasts (pHOF): Potential Model for Osteonecrosis of the Jaw Studies, *Tissue Engineering: Part A* Volume 21, Supplement 1, 2015:S-258.

Review Articles

Bidwell, J., Torrungruang, K., Alvarez, M., Rhodes, S., Shah, R., **Jones, D.**, Charoonpatrapong, K., Hock, J., and Watt, A. Involvement of the Nuclear Matrix in the Control of Skeletal Genes: The NMP1 (YY1), NMP2 (Cbfa1), and NMP4 (Nmp4/CIZ) Transcription Factors, *Critical Reviews in Eukaryotic Gene Expression*, 2001, 11(4):279-298.

Jones, D. (2014). Genetic Imprinting In B. Auday, M. Buratovich, G. Marrocco, and P. Moglia (Eds.), *Magill's Medical Guide, Volume II, Seventh Edition* (pp. 948-952). Amenia, NY: Grey House Publishing/Salem Press.

Jones, Daniel R. A Potential Osteoporosis Target in the FAS Ligand/FAS Pathway of Osteoblast to Osteoclast Signaling, *Annals of Translational Medicine*, 2015, 3(14):1-5.

Jones, Daniel R. Blueberry Polyphenols and Their Effects on Bone and Joint, *Advances in Food Technology and Nutritional Sciences*, 2016, 2(1): 143-149.

INVITED TEXT REVIEW/NATIONAL COMMITTEES:

- | | |
|------|--|
| 2005 | Chapter review of genetics text, <i>The Logic of Genetics</i> , for Benjamin Cummings |
| 2006 | Chapter review of genetics text, <i>iGenetics</i> , 2 nd edition, for Benjamin Cummings |

- 2006 American Chemical Society—2008 National Biochemistry Exam Committee Member, Contributor
- 2011 Chapter review of genetics laboratory text, *Genetics Laboratory Investigations*, 13th edition, for Pearson Prentice Hall
- 2017 Chapter review of *Molecular Biology of the Cell*, 6th edition, for Garland Science

SCIENTIFIC JOURNAL PEER REVIEWER:

- 2016- *Journal of Natural Products* (publication of the American Chemical Society)
- 2016- *Canadian Journal of Physiology and Pharmacology*
- 2016- *Nutrients* (publication of the Multidisciplinary Digital Publishing Group)
- 2016- *Journal of Investigative Medicine*
- 2018- *Journal of Cellular Physiology*
- 2018- *Experimental Biology and Medicine*
- 2019- *Bone*

GRANTS:

- 2004 Indiana Academy of Science Senior Research Scientist Grant, *An Investigation of the Anti-Apoptotic Mechanism of CD40 Ligand in Dexamethasone-Induced Osteoblast Apoptosis*
- 2005 Mentored four students' Lilly Student Research Award applications through IWU, two awarded
- 2005 Lilly Faculty Scholarship Grant through IWU, *A Study of the Mechanisms of Dexamethasone-Induced Apoptosis in Osteoblasts—An Important Piece in the Osteoporosis Puzzle*
- 2006 Mentored three students' Lilly Student Research Award applications through IWU, all awarded
- 2006 Lilly Faculty Scholarship Grant (Summer Research Stipend)
- 2008 Indiana Academy of Science Senior Research Scientist Grant, *Characterization of the Effect of Glucoluteolin, a Flavonoid, on Estrogen-Induced Apoptosis in Osteoclasts*
- 2009 Mentored two students' Lilly Student Research Award applications through IWU, both awarded
- 2009 Lilly Faculty Scholarship Grant (Summer Research Stipend)
- 2010 Lilly Faculty Scholarship Grant (Summer Research Stipend)
- 2011 IWU Hodson Summer Research Institute Grant
- 2011 Lilly Faculty Scholarship Grant
- 2011 Lilly Faculty Research Load Award
- 2012 IWU Hodson Summer Research Institute Grant
- 2012 Lilly Faculty Scholarship Grant
- 2012 Indiana Academy of Science Senior Research Scientist Grant, *Investigation of Reveromycin A-Induced Cell Death Effects in Chondrocytes*
- 2013 IWU Hodson Summer Research Institute Grant
- 2014 IWU Hodson Summer Research Institute Grant

2014 Hinds Fellowship 2014-2015 Funding Award
 2014 Mentored one student's Lilly Student Research Award application through IWU, awarded
 2015 IWU Hodson Summer Research Institute Grant
 2015 Lilly Faculty Scholarship Grant
 2015 Lilly Experiential Learning Field Trip Grant
 2015 Mentored two students' Lilly Student Research Award application through IWU, awarded
 2016 IWU Hodson Summer Research Institute Grant
 2016 Lilly Faculty Scholarship Grant
 2017 Lilly Experiential Learning Field Trip Grant
 2017 IWU Hodson Summer Research Institute Grant
 2017 Lilly Faculty Scholarship Grant
 2018 Lilly Experiential Learning Field Trip Grant
 2018 IWU Hodson Summer Research Institute Grant
 2018 IWU University Scholar Award Grant
 2019 IWU Hodson Summer Research Institute Grant
 2019 Indiana Academy of Science Senior Research Scientist Grant, *Rescue of Human Oral Keratinocytes From a Bone Cancer Drug Side Effect: Relative Ability of Three Candidate Agents to Rescue*
 2020 IWU Hodson Summer Research Institute Grant
 2021 IWU Hodson Summer Research Institute Grant
 2022 IWU Hodson Summer Research Institute Grant
 2023 IWU Hodson Summer Research Institute Grant
 2024 IWU Hodson Summer Research Institute Grant

TEACHING:

Past Courses—

Anatomy & Physiology I Lab
 Biochemistry II (Biochemistry of Nucleic Acids Lecture)
 Biochemistry II Lab
 Genetics (Integrated Lecture and Lab)
 Human Biology Lecture and Lab for the Non-Science Major
 Molecular Biology (Lecture and Lab)
 Physiology/Pathophysiology (Lecture, IWU Doctorate of Physical Therapy Program)

Current Courses—

Anatomy & Physiology I (Lecture)
 Anatomy & Physiology II (Lecture)
 Biology Research
 Cell Biology (Lecture)
 Nutrition for the Science Major (Lecture and Lab)
 Dental Science (Integrated Lecture and Lab)
 Preparing the Christian Health Professional (Lecture)

COMMUNITY SERVICE:

- 2000-2005 Coordinated my students' efforts on Operation Christmas Child Push-pull and set-up team—Hamilton County Passion Play, *Behold the Lamb*, Noblesville, IN
- 2006 Usher—Hamilton County Passion Play, *Behold the Lamb*, Noblesville, IN
- 2006, 2007 ACSI District Science Fair judge
- 2009 Hamilton County Good Samaritan's food delivery participant
- 2010 Habitat for Humanity Greater Indianapolis Volunteer
- 2011 Wheeler Lighthouse Men's Emergency Center Indianapolis Volunteer

UNIVERSITY SERVICE:

- 2003- Member, Faculty Pre-Med Committee
- 2004- Natural Sciences Division mentor for Barry Goldwater Scholarship candidates
- 2004- Natural Sciences Division mentor for Elie Weisel Foundation Prize in Ethics Essay Contest candidates
- 2005-2009 Biology Department Co-Coordinator
- 2006-2007 Member, Indiana Wesleyan University Institutional Review Board
- 2006-2022 Chairman, Faculty Pre-Med Committee
- 2022- Chairman, Faculty Pre-Health Care Sciences Program Committee
- 2006-2010 Faculty member, College of Arts and Sciences' Academic Advising Committee
- 2007-2010 Chairman, College of Arts and Sciences' Academic Advising Committee
- 2007-2008 Member, Scholarship Council—Lilly Student Awards Subcommittee
- 2009 Member, Scholarship Council—Chairman Lilly Faculty Awards Outstanding Teacher Subcommittee
- 2009-2010 Member, IWU IACUC (Institutional Animal Care and Use Committee)
- 2012 Member, Scholarship Council—Chairman of Subcommittee for Lilly Faculty Research Awards (Load Release Awards) and Provost's World Changing Faculty Award
- 2012-2015 Faculty advisor for the IWU chapter of CMDA
- 2014 Chairman of Subcommittee for Lilly Faculty Research Awards and Chairman of Subcommittee for Provost's Outstanding Faculty Research Award
- 2017-2019 Member, Faculty Rank Promotion Committee
- 2017- STEM Scholar mentor
- 2019-2021 Member, University General Education Committee
- 2019-2021,
- 2023- Member, University Scholarship Council
- 2024- Member, University Athletics Committee

CHURCH:

- 2002-04 Member, Grace Community Church, Noblesville, IN
- 2002-04 Participant, Community Group Bible Fellowship
- 2004-2019 Member, Harbour Shores Church, Cicero, IN

2004-2019 Participant, Ambassadors Adult Bible Study Fellowship
2004-05 1st grade Sunday school teacher
2005-06 5th grade Sunday school teacher
2006-2019 Pathway to Maturity Bible Studies
2008-2009 Prayer in the Home leader/participant
2009-2012 Men's Triple Cord Ministry
2010-2013 Hamilton County Passion Play participant
2014-2017 Walker nursery volunteer
2017-2019 4th grade Sunday school teacher
2020- Northview Church, Carmel, Indiana
2020- Mens' S.O.A.P. Bible Study, Northview Church
2020- Guest Services Ministry, Northview Church, Carmel, Indiana