CURRICULUM VITAE

NAME: Paul R. Reynolds, Ph.D.

ADDRESS: Brigham Young University
Department of Cell Biology and Physiology
3054 Life Sciences Building
Provo, UT 84604
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EDUCATION: **Post-Doctoral Fellow** (2004-2006)
Department of Internal Medicine, Pulmonary Division, University of Utah Health Sciences Center, Salt Lake City, UT 84239
John R. Hoidal, M.D., Advisor.

Ph.D. Molecular and Developmental Biology (2004)
Cincinnati Children's Hospital Medical Center, University of Cincinnati, Division of Developmental and Molecular Biology, Cincinnati, OH 45229
Dissertation: "Midkine (MK) Regulates Pulmonary Vascular Remodeling During Hypoxia"
Jeffrey A. Whitsett M.D., Advisor.

M.S. Zoology (2001)
Brigham Young University, Department of Zoology, Provo, UT 84602
Thesis: "Protection of Retinoic Acid-Induced Cleft Palate in Mice by Separate and Concomitant Administration of Folic Acid and Methionine"
Robert E. Seegmiller, Ph.D., Advisor.

B.S. Human Biology (1999)
Brigham Young University, Department of Zoology, Provo, UT 84602

PROFESSIONAL EXPERIENCE:

Professor (2018-present)
Brigham Young University, Dept. of Cell Biology and Physiology, Provo, UT 84602

Visiting Scientist (Jan 2022-Jul 2022)
State University of New York (SUNY) Downstate, Department of Medicine

Associate Professor (2013-2018)
Brigham Young University, Dept. of Cell Biology and Physiology, Provo, UT 84602

Visiting Scientist (May 2013-Jan 2014)
University Hospitals and Clinics, University of Heidelberg, Department of Inner Medicine

Assistant Professor (2007-2013)
Brigham Young University, Dept. of Cell Biology and Physiology, Provo, UT 84602

Assistant Research Professor (2006-2009)

University of Utah School of Medicine, Pulmonary Division, Salt Lake City, UT 84239

Post-Doctoral Fellow (2004-2006)
University of Utah Health Sciences Center, Pulmonary Division, Salt Lake City, UT 84239

Doctoral Candidate (2003-2004)
Developmental and Molecular Biology, Cincinnati Children's Hospital Medical Center, University of Cincinnati, Cincinnati, OH 45229

Pre-doctoral Candidate (2001-2003)
Developmental and Molecular Biology, Cincinnati Children's Hospital Medical Center, University of Cincinnati, Cincinnati, OH 45229

AWARDS:

Ferrin L. Orton Teaching and Learning Faculty Fellowship (2017)
Brigham Young University

College of Life Sciences Outstanding Teaching Award (2017)
Brigham Young University

APS-TPS Joint Meeting Award (2016)
International Physiology Committee and the Council of the American Physiological Society

Department Distinguished Faculty Award (2015)
Physiology and Developmental Biology Department, Brigham Young University

American Physiological Society Research Career Enhancement Award (2015)
American Physiological Society

CyPlex Systems American Society of Reproductive Immunology Grant (2014)
CyPlex Systems and The American Society for Reproductive Immunology

American Physiology Minority Fellowship Award Mentor (2014)
American Physiological Society

International Union of Physiological Sciences Congress: Birmingham, England (2013)
International Travel Presentation Award

Respiratory Section New Investigator Award, (2012)
American Physiological Society

Presentation Award (2012)
Society of Developmental Biology Conference, Montreal, Canada

American Physiological Society Research Career Enhancement Award (2011)
American Physiological Society

Presentation Award (2011)
Society of Developmental Biology Conference, Chicago, IL

National Institutes of Health LRP award (2010-2012)
National Institutes of Health, NHLBI Extramural Clinical Researcher

National Institutes of Health LRP award (2008-2010)
National Institutes of Health, NHLBI Extramural Clinical Researcher

University of Utah Faculty Scholarly and Creative Research Award (2008)
University of Utah School of Medicine

Presentation/Travel Award (2007)
Society of Developmental Biology Conference, Cancun Mexico

Presentation/Travel Award (2006)
Society of Developmental Biology Conference, Ann Arbor, MI

Presentation/Travel Award (2005)
Society of Developmental Biology Conference, San Diego CA

Trainee Travel Award, National Heart, Lung and Blood Institute (2004)
National Institutes of Health
13th Annual International Vascular Biology Meeting, Toronto, Canada

Young Investigator Platform Presentation Award (2004)
13th Annual International Vascular Biology Meeting, Toronto, Canada

Young Investigator Travel Award (2001)
41st Annual Teratology Society Meetings

Student Presentation Award, Plenary Platform Session (2001)
41st Annual Teratology Society Meetings

FUNDED EXTERNAL GRANTS AND FELLOWSHIPS:

Clinical Innovator Grant (2023-2026), PI $325,500.00
Flight Attendant Medical Research Institute
Utilization of novel bromo-domain inhibitors to ameliorate secondhand tobacco smoke-induced COPD pathogenesis.

1 R15 HD108743-01 (2022-2025), Role: Co-I $450,000.00
National Institutes of Health: Child Health and Human Development
Lung and Placental RAGE Signaling Induction by Secondhand Smoke and E-Cigarette Vapor.

1 R15 HL152257-01A1 (2020-2024), Role: PI $450,000.00
National Institutes of Health: Heart Lung and Blood Institute
RAGE targeting attenuates smoke-induced inflammation.

Rocky Mtn Center for Occ and Environ Health (2022-2023), Role: Co-PI $19,440.00
University of Utah: Research Projects in Occupational Safety and Health
Spatiotemporal and Personal Monitoring of Nepali Brick Workers Aerosol Exposures.

Research Award (2020-2022), Role: PI $58,272.00
Performance Labs, LLC
Characterizing the effects of Chlorophyll.

Collaborative Research Award (2020-2022), Role: PI $15,000.00
Dr. Daniel Orr, UNLV School of Dental Medicine
Characterizing a role for RAGE in CRS.

Clinical Innovator Grant (2016-2021), PI $469,262.50
Flight Attendant Medical Research Institute
RAGE and SAGE: Modeling secondhand smoke-induced COPD and therapeutic modalities.

NHLBI LRP Clinical Research Grant (2016-2017), Role: PI $7,927.65
National Institutes of Health: Heart Lung and Blood Institute
RAGE variability and the use of SAGEs in the treatment of smoke-induced inflammation.

American Physiological Society Research Career Enhancement (2015), Role: PI $5,000.00
American Physiological Society
Characterizing the Nuclear Functions of Translocated RAGE.

Clinical Innovator Grant (2014-2017), Role: Co-I $325,500.00
Flight Attendant Medical Research Institute
Role of OCTN1 in tobacco-induced COPD.

Clinical Innovator Grant (2012-2016), Role: PI $325,500.00
Flight Attendant Medical Research Institute
Systemic inflammation and Pulmonary RAGE expression.

American Physiological Society Research Career Enhancement (2011), Role: PI $5,000.00
American Physiological Society
Characterizing ATI Morphology in Lungs that Over-Express RAGE.

NHLBI LRP Clinical Research Grant (2010-2012), Role: PI $22,316.56
National Institutes of Health: Heart Lung and Blood Institute
Endothelial based mechanisms of COPD pathogenesis involving RAGE.

NHLBI LRP Clinical Research Grant (2008-2010), Role: PI $28,724.48
National Institutes of Health: Heart Lung and Blood Institute
Novel mechanisms of COPD pathogenesis involving RAGE.

Young Clinical Scientist Grant (2007-2012), Role: PI $542,500.00
Flight Attendant Medical Research Institute Award # 062473_YSCA
Egr-1 Mediated Effects in Secondhand Tobacco Smoke Exposure.

Parker B. Francis Fellowship in Lung Research (2006-2009), Role: PI $138,000.00
Parker B. Francis Pulmonary Research Foundation
Transcription Factor Expression During Cigarette Smoke-Induced Lung Inflammation.

Ruth L. Kirwschstein National Research Service Award (2004-2006)
National Institutes of Health HL07636-15, Jeffrey Whitsett, PI

PHS Graduate Training Grant (2001-2004)
Developmental and Perinatal Endocrinology (HD07463)

FUNDED INSTITUTIONAL GRANTS AND FELLOWSHIPS:

Life Sciences College Mentoring CEMENT Grant (2024), PI Brigham Young University, Provo UT 84602	$5,000.00
John A. Widtsoe Grant (2023-2024), PI Brigham Young University, Provo, UT 84602	$25,000.00
Interdisciplinary Research (IDR) Origination Award (2022-2023), Co-PI Brigham Young University, Provo, UT 84602	$40,000.00
Life Sciences College Mentoring CEMENT Grant (2023), PI Brigham Young University, Provo UT 84602	$5,000.00
Life Sciences College Mentoring CEMENT Grant (2022), PI Brigham Young University, Provo UT 84602	$5,000.00
Life Sciences College Mentoring CEMENT Grant (2021), PI Brigham Young University, Provo UT 84602	$5,000.00
Life Sciences College Grants on the Edge Award (2021), PI Brigham Young University, Provo UT 84602	$4,800.00
Life Sciences College Mentoring CEMENT Grant (2020), PI Brigham Young University, Provo UT 84602	$5,000.00
Life Sciences College Mentoring CEMENT Grant (2019), PI Brigham Young University, Provo UT 84602	$5,000.00
Life Sciences College Mentoring CEMENT Grant (2018), PI Brigham Young University, Provo UT 84602	$5,000.00
BYU Mentoring Environment Grant (2017), PI Brigham Young University, Provo UT 84602	$20,000.00
Ferrin L. Orton Teaching and Learning Faculty Fellowship (2017-19), PI Brigham Young University, Provo UT 84602	$15,000.00
BYU Mentoring Environment Grant (2013), PI Brigham Young University, Provo UT 84602	$20,000.00
BYU Mentoring Environment Grant (2011), PI Brigham Young University, Provo UT 84602	$20,000.00

BYU Graduate Mentoring Award (2011), PI $4,000.00
Brigham Young University, Provo UT 84602

BYU Mentoring Environment Grant (2009), PI $20,000.00
Brigham Young University, Provo UT 84602

BYU Graduate Mentoring Award (2009), PI $4,000.00
Brigham Young University, Provo UT 84602

PENDING GRANT APPLICATIONS:

1268912 (2024-2026), Role PI $150,000.00
American Lung Association, Innovation Award Grant
Title: Novel bromo-domain inhibitors that ameliorate secondhand smoke-induced COPD

1 R15 ES035212-01 (2023-26), Role: Co-I $454,500.00
National Institutes of Health, National Institute of Environmental Health Sciences
Title: Contributions of respirable silica and fine particulate matter exposures to clinical and inflammatory markers of chronic obstructive pulmonary disease

1 R01 RDK140929A (2024-29), Role: Co-I $3,089,791.74
National Institutes of Health, National Institute of Diabetes and Digestive and Kidney Diseases
Title: Revolutionizing gut health: in situ, real-time analysis of microbiome interactions and therapeutic response via an innovative swallowable capsule with tissue attachment mechanism

National Institutes of Health R01, PI $1,125,000.00
National Institutes of Health, National Institute of Environmental Health Sciences
Title: RAGE signaling underpins basic mechanisms of inflammatory health effects of electronic nicotine delivery system (ENDS) Exposure.

STUDENT GRANTS, FELLOWSHIPS and AWARDS:

Brigham Young University Graduate Student Research Travel Award, 2023
Katrina Curtis, PhD student and Derek Clarke, PhD student

Brigham Young University Undergraduate CURA Award, 2023
Kennedy Campbell: Chronic effects of tobacco smoke-induced kung inflammation on RAGE signaling and lung morphology

Brigham Young University Graduate Student Research Travel Award, 2022
Katrina Curtis, PhD student and Derek Clarke, PhD student

Brigham Young University Undergraduate CURA Award, 2021
Nathan Beckett: The role of RAGE in regulating the expression of neonatal TTF-1 and surfactant in the progression of Bronchopulmonary Dysplasia

Brigham Young University Undergraduate ORCA Award, 2021
Kyle Homer: The Use of SAGE, a RAGE Inhibitor, Reduces Inflammatory Symptoms in DPM-exposed Mice

College of Life Sciences Undergraduate Research Award (CURA), 2019 Poster Winner
Sam Llavina

Brigham Young University, College Undergraduate Research Award (CURA), 2018
Taylor Davis and Sam Llavina: Profiling the temporospatial effects of Fgf8 during lung morphogenesis

Brigham Young University Graduate Student Research Travel Award, 2018
Kelsey Hirschi, PhD student

Brigham Young University Undergraduate ORCA Award, 2018
Kaleb Egbert: Antenatal exposure to second-hand smoke impacts the embryology and physiology of the cardiopulmonary apparatus

Brigham Young University Graduate Student Research Travel Award, 2017
Kelsey Hirschi, PhD student

Brigham Young University Undergraduate ORCA Award, 2017
Todd Dunaway: Maternal-fetal interactions and the induction of preeclampsia by growth arrest-specific 6 (Gas6)/AXL signaling

Brigham Young University Undergraduate ORCA Award, 2017
Brent Kimbler: RAGE Functions during Secondhand Smoke-Induced Bronchopulmonary Dysplasia

Brigham Young University Undergraduate ORCA Award, 2016
Jason Gassman: Characterization of RAGE Expression in Peripheral Tissues in Response to Secondhand Smoke

Brigham Young University Graduate Student Research Travel Award, 2015
Josh Lewis, MS student

Brigham Young University Graduate Student Exposition, 2015
Rebecca Kimball, MS student mentee. Presentation Award, Grand Prize: $1,000

Brigham Young University Graduate Student Exposition, 2015
Michael Nelson, MS student mentee. Presentation Award, College Honorable Mention

The American Physiological Society Minority Travel Fellowship, Oct 2014
Felix R. Jimenez, Conditional pulmonary overexpression of Claudin 6 (Cldn6) during embryogenesis delays lung morphogenesis.

The American Physiological Society Minority Travel Fellowship, April 2014
Felix R. Jimenez, Pulmonary expression and regulation of Cldn6 by tobacco smoke

Brigham Young University Graduate Research Presentation Award, 2014
Tyler Wood: Targeted mice reveal a role for RAGE in an early inflammatory response to tobacco smoke

Brigham Young University Undergraduate ORCA Award, 2014
Steven Knapp: Novel comet assay identifies preliminary DNA damage prior to cell apoptosis in mouse models of RAGE over-expression

Brigham Young University Undergraduate ORCA Award, 2009
Phillip Beck: Premature osteoarthritis and activation of the RAGE receptor

Brigham Young University Undergraduate ORCA Award, 2011
Tyler Earley: RAGE expression in inflammatory lung diseases

Brigham Young University Undergraduate ORCA Award, 2011
Megan Stogsdill: Novel mouse model of RAGE over-expression causes inflammation in adult mouse lungs

Brigham Young University Undergraduate ORCA Award, 2011
Jason Porter: The distribution of the alpha 5 nAChR subunits in the mouse lung

Brigham Young University Undergraduate ORCA Award, 2010
Jeff Stogsdill: The role of up-regulated advanced glycation end products (RAGE) in impaired lung development and respiratory disease

Brigham Young University Undergraduate ORCA Award, 2010
Karisa Wasley: The role of RAGE in inflammatory lung disease induced by diesel particulate matter

David S. Bruce Award, Experimental Biology Meetings 2010
Karisa Wasley

Brigham Young University Undergraduate ORCA Award, 2010
Alex Geyer: TTF-1 regulates the expression of genes that are critical for lung formation and function

Brigham Young University Undergraduate ORCA Award, 2009
Cami Alison: RAGE Expression in Inflammatory Lung Diseases Triggered by Air Pollutants

PATENTS AND INVENTIONS

Provisional Patent filed 23 July 2013 and refilled Oct 2014 (Provisional patent number 61/741,814); RAGE transgenic mice are novel models for COPD pathogenesis

Provisional Patent filed 23 July 2013 (Provisional patent number 61/741,723)
Therapeutic alleviation of chronic rhinosinusitis by modeling with RAGE transgenic mice

PROFESSIONAL ORGANIZATION MEMBERSHIPS:

American Society for Integrative Pathology, ASIP (2015-present)
American Association for Dental Research, AADR (2015-present)
The American Physiological Society, APS (2007-present)
Society for Developmental Biology, SDB (2005-present)
The American Thoracic Society, ATS (2002-present)
The Teratology Society (2000-2001)

PROFESSIONAL SERVICE RENDERED

Editorial Board Memberships

Respiratory Research (**IF=3.642**); Editorial Board Member (2014-present)
Am J of Respiratory Cell and Mol Biology (**IF=4.080**); Editorial Board Member (2014-present)
MDPI: Biomedicines (**IF=6.081**); Invited Guest Editor for Special Issue, "Biophysical Methods in Drug Discovery: New Approaches and Applications" (2022-2024)
MDPI: Biomolecules (**IF=4.569**); Invited Guest Editor for Special Issue, "Cigarette Smoke Exposure and Pulmonary Diseases" (2022-2024)
International Journal of Molecular Sciences (**IF=3.257**); Invited Guest Editor for Special Issue, "Inhaled Pollutants Modulate Respiratory and Systemic Diseases" (2016-2018)

Professional Organization Leadership

American Association for Dental Research, Utah Section, Secretary (2016-present)
President Olga Baker, DDS

Editorial Manuscript Referee, Ad hoc

Life Sciences; I. Glenn Sipes, Ph.D., Editor (**IF=2.702**)
Am J of Respiratory Cell and Molecular Biology; Michael J. Holtzman, M.D., Editor (**IF=3.985**)
Expert Review of Anticancer Therapy; Elisa Manzotti, Editorial Director (**IF=2.249**)
Am Journal of Physiology: Lung Cell and Molecular Biology; Sadis Matalon, Editor (**IF=4.080**)
Pulmonary Pharmacology and Therapeutics; Esteban J Morcillo, Editor (**IF=2.937**)
Journal of Biomedicine and Biotechnology; Karl Chai, Editor (**IF=1.579**)
European Respiratory Journal; Vito Brusasco, Editor (**IF=6.355**)
Monoclonal Antibodies; Janice Reichert, Editor (**IF=4.814**)
Frontier in Bioscience; Lin Li, Editor (**IF=3.523**)
Journal of Dental Research; Dana Graves, Associate Editor (**IF=4.144**)
Toxicology; Kendall B. Wallace, Managing Editor (**IF-3.621**)
Histology and Histopathology; Francisco Hernandez, Editor (**IF-2.096**)
PloS One, Tim D. Oury, Adacemic Editor (**IF=3.234**)
Biotechnology and Applied Biochemistry; Nicholas Brindle Associate Editor (**IF-1.239**)
Cell Biology and Toxicology; John Masters, Editor in Chief (**IF=2.677**)
Differentiation; Gerald Cunha, Senior Editor (**IF=2.836**)
Respiratory Research; Jan Lötvall, and Reynold A Panettieri, Editors (**IF=3.642**)
Environmental Health Perspectives; Steven Kleeberger, Editor (**IF=7.977**)
Anatomical Sciences Education; Wojciech Pawlina, Editor (**IF=2.976**)
Thorax; Alan Smyth, Editor (**IF=8.376**)
Experimental Endocrinology and Diabetes; Peter Nawroth, Editor (**IF=1.555**)
Biomed Research International; Salvatore Battaglia, Associate Editor (**IF=1.579**)
Scientific Reports, Nature Publishing Group; Oliver Eickelberg, Editor (**IF=5.578**)
Int Journal of Environmental Research and Public Health; Paul B. Tchounwou, Editor (**IF=2.063**)
Inhalation Toxicology; Mitchell D. Cohen, Editor in Chief (**IF=2.26**)
Int J of Chronic Obstructive Pulmonary Disease; Richard E. Russell, Editor in Chief (**IF=3.157**)
Biochimica et Biophysica Acta: General Subjects; David Litchfield, Executive Editor (**IF=4.702**)
BMC Public Health; Natalie Pafatis, Editor in Chief (**IF=2.265**)

Grant Review Study Sections or Steering Meetings

National Institutes of Health, NIGMS Study Section Member, 2024
Scientific Review Group: Support for Research E (SuRE-First); R16. 2024/05 ZGM1 RCB-T (SF)

National Institutes of Health, NIEHS Study Section Member, 2024
Scientific Review Group: Superfund hazardous substance research and training program; P42. 2024/05 ZRG1 BST-H (55) R

National Institutes of Health, Study Section Member, 2022-2023
Scientific Review Group: Tobacco Centers of Regulatory Science (TCORS) and Center for Coordinated Analysis, Science, Enhancement, and Logistics (CASEL). 2022-2023, ZRG1 ICN-R 50

WV-INBRE Cancer Biology Pilot Grant Program, 2022
National Institutes of Health, NIGMS: Regional Grant Program

National Institutes of Health, Study Section Member, 2022
Scientific Review Group: Tobacco Regulatory Science. 2022/05 ZRG1 BST-H (55) R

National Institutes of Health, Study Section Member, 2021
Scientific Review Group: Fellowships—Physiology and Pathobiology of Cardiovascular and Respiratory Systems. 2021/05 ZRG1 F10A

National Institutes of Health, Study Section Member, 2021
Scientific Review Group: Lung Injury, Repair, and Remodeling. 2021/05 LIRR (62)

National Institutes of Health, Study Section Member, 2021
Scientific Review Group: Tobacco Regulatory Science. 2021/05 ZRG1 CVRS-N (03) M

National Institutes of Health, Study Section Member, 2020
Scientific Review Group: Tobacco Regulatory Science. 2021/01 ZRG1 IFCN-E (56) R

Deutsche Forschungsgemeinschaft (DFG: German Research Foundation), Invited Referee 2020
Panel: *Alveolarization and Lung Injury*

Department of Defense Congressionally Directed Medical Research Programs (CDMRP)
Lung Cancer Research Program, 2019
Immunology and Immunotherapeutics Section

National Institutes of Health, Study Section Member, 2018
Scientific Review Group: Respiratory Diseases. 2019/01 ZRG1 CVRS-N (03) M

National Institutes of Health, Study Section Member, 2018
Electronic Nicotine Delivery Systems: Basic Mechanisms of Health Effects. 2019/01 ZRG1 CVRS-N (50) R

National Institutes of Health, Study Section Member, 2017
Scientific Review Group: Tobacco Regulatory Science. 2018/01 ZRG1 BST-H (55) R

Australia National Health and Medical Research Council (NHMRC), Invited Referee 2017
Section: *Cardiovascular Medicine and Haematology*
Targeting immunosenescent innate T cells in COPD

FAMRI Competitive Grant Review Committee, Panelist 2017
Panel: *Current and Ongoing COPD Funding Outlook and Directions*
Invited to participate in meetings aimed to educate the FAMRI Board of Trustees on the current state of translational science and how best to establish future funding objectives.

Research Councils UK (RCUK): Medical Research Council (MRC), Invited Referee 2016
Cellular and Molecular Control of Human Embryonic Alveolar Development: Towards Lung Regeneration

Austrian Science Fund (FWF), Invited Referee 2016
Biological and Medical Sciences Module

Kentucky Science and Engineering Foundation (KSEF), Invited Referee 2016
KSEF-15-RDE-019 Award Mechanism

FAMRI Competitive Grant Review Committee, Invited Referee 2015
Panel: *Secondhand Tobacco Smoke Exposure, Emphysema, and COPD*

Deutsche Forschungsgemeinschaft (DFG: German Research Foundation), Invited Referee 2015
Panel: *Alveolarization and Lung Injury*

FAMRI Competitive Grant Review Committee, Invited Referee 2014
Panel: *Secondhand Tobacco Smoke Exposure, Emphysema, and COPD*

Danish Council for Independent Research (DFF), 2013
Sapere Aude: DFF Advanced Grant in Medical Sciences

Netherlands Organization for Scientific Research (NWO), 2012
Panel: Vici Grants Mechanism: Innovational Research Incentives Scheme

FAMRI Competitive Grant Review Committee, Invited Referee 2012
Panel: *Secondhand Tobacco Smoke Exposure, Emphysema, and COPD*

FAMRI Competitive Grant Review Committee, Invited Referee 2010
Panel: *Respiratory Effects of Secondhand Tobacco Smoke Exposure*

FAMRI Competitive Grant Review Committee, Invited Referee 2009
Panel: *Respiratory Effects of Secondhand Tobacco Smoke Exposure*

Southwest Environmental Health Sciences Center (NIEHS)
Pilot Grant Program. Reviewer, 2009

UNIVERSITY SERVICE

Department Faculty Development Committee Member (2023-present)
University IACUC Committee Vice Chair (2023-present)
Department Research Committee Member (2020-present)
University IACUC Committee Member (2018-present)
Department Faculty Search Committee Chair (2018-19)
BYU Faculty Center Pre-Continuing Faculty Status (Tenure) Liaison (2017)

BYU College of Life Sciences 3 Minute Thesis Competition judge (2016)
BYU Faculty Center International Leave Liaison (2015)
Department Graduate Committee Chair (2014-2018)
Department New Faculty Strategic Planning Committee (2011-2013)
University Pre-professional Advisement Center Mentor (2008-present)
Department Graduate Committee Member (2009-2014)
College of Life Sciences Building Planning Committee Member (2010-2012)
Department Faculty Search Committee Member (2010)
Department Faculty Search Committee Member (2008)

TEACHING ACTIVITIES

Brigham Young University is predominantly an undergraduate teaching institution. As such, all faculty members are given primary teaching responsibilities for courses designed for majors or non-majors in their respective departments.

Undergraduate Honor's Thesis

1. Stephen D. Kasteler, 2006. "The regulation and effects of receptors for advanced glycation end-products (RAGE) in pulmonary epithelial cells exposed to cigarette smoke"
   Role: Mentor, Committee chair

Graduate Student Mentoring

Master of Science

1. Rebecca Viazzo, MS Student. 2019-2020. Role: Graduate Committee Member
2. Chase Walton, MS Student, BYU. 2018-2020. Role: Graduate Committee Member
3. Kelsey Phillips, MS Student, BYU. 2015-2018. Role: Graduate Committee Member
4. Aimee Hodson, MS Student, BYU. 2015-2016. Role: Graduate Committee Member
5. Rebecca Kimball, MS Student, BYU. 2014-2016. Role: Graduate Committee Member
6. Kristen Mecham, MS Student, BYU. 2014-2015. Role: Graduate Committee Member
7. Ivan Arano, MS Student, BYU. 2014-2015. Role: Graduate Committee Member
8. Michael Nelson, MS Student, BYU. 2013-2015. **Role: Graduate Committee Chair**
9. Elizabeth Chavez, MS Student, BYU. 2012-2014. Role: Graduate Committee Member
10. Tyler Wood, MS Student, BYU. 2013-2014. **Role: Graduate Committee Chair**
11. Jeffrey A. Stogsdill, MS Student, BYU. 2011-2012. **Role: Graduate Committee Chair**
12. Adam Robinson, MS Student, BYU. 2011-2012. **Role: Graduate Committee Chair**

Doctor of Philosophy

1. Jhon Sia, PhD Student. 2023-present. Role: Graduate Committee Member
2. Aubri Saxton, PhD Student. 2022-present. Role: Graduate Committee Member
3. Isabelle Palmer, MS Student. 2022-present. Role: Graduate Committee Member
4. Cali Warren, MS Student. 2022-present. Role: Graduate Committee Member
5. Derek Clarke, PhD Student, BYU. 2021-present. **Role: Graduate Committee Chair**
6. Katrina Curtis, PhD Student, 2020-2023. **Role: Graduate Committee Chair**
7. Ashley Markham, PhD Student. 2019-2023. Role: Graduate Committee Member
8. Kary Tsai, PhD Student, BYU. 2018-2021. Role: Graduate Committee Member
9. Brandon Rose, PhD Student, BYU. 2016-2022. Role: Graduate Committee Member
10. Kelsey Hirschi, PhD Student, BYU. 2016-2020. **Role: Graduate Committee Chair**
11. Caleb Cornaby, PhD Student, BYU. 2014-2017. Role: Graduate Committee Member
12. Nafiseh Poornejad, PhD Student, BYU. 2014-2017. Role: Graduate Committee Member
13. Joshua Lewis, PhD Student, BYU. 2014-2017. **Role: Graduate Committee Chair**

14. Felix Jimenez, PhD Student, BYU. 2012-2015. **Role: Graduate Committee Chair**
15. Kevin Tuttle, PhD Student, BYU. 2012-2017. Role: Graduate Committee Member
16. Mikayla Thatcher, PhD Student, BYU. 2012-2015. Role: Graduate Committee Member
17. Duane Winden, PhD Student, BYU. 2013-2014. **Role: Graduate Committee Chair**
18. Jason S. Adams, PhD Student, BYU. 2009-2012. Role: Graduate Committee Member

MEETING ATTENDANCE AND PRESENTATIONS

1. Experimental Biology International Meeting, Long Beach, CA (2024)
2. Latin American Society for Materno Feta; Interaction and Placenta, Maceio, Brazil (2024)
3. World Gene Convention & Regenerative Stem Cells, Nagoya, Japan (2024)
4. Experimental Biology International Meeting, Long Beach, CA (2023)
5. Society for Developmental Biology Annual Meetings, Chicago, IL (2023)
6. International Federation of Placental Associations Congress, Rotoura, New Zealand (2023)
7. FAMRI Scientific Research Symposium, Kansas City, MO (2023)
8. Experimental Biology International Meeting, Philadelphia, PA (2022)
9. Royal College of Pathologists International Lung Symposium, London, UK (2022)
10. American Association for Dental Research, Virtual (2021)
11. International Federation of Placental Associations Congress, Buenos Aires, Argentina (2019)
12. Europhysiology Congress, Reykjavik, Iceland (2019)
13. Society of Reproductive Immunology Congress, Paris, France (2019)
14. Experimental Biology International Meeting, Orlando, FL (2019)
15. American Association for Dental Research, Vancouver, British Columbia (2019)
16. Europhysiology Congress, London, England (2018)
17. International Federation of Placental Associations Congress, Tokyo, Japan (2018)
18. Experimental Biology International Meeting, San Diego, CA (2018)
19. American Association for Dental Research, Ft. Lauderdale, FL (2018)
20. Congress of the International Society of Developmental Biologists, Singapore (2017)
21. American Association for Dental Research, San Francisco, CA (2017)
22. Experimental Biology International Meeting, Chicago, IL (2017)
23. FAMRI Scientific Research Symposium, Miami, FL (2017)
24. American Association for Dental Research, Los Angeles, CA (2016)
25. Experimental Biology International Meeting, San Diego, CA (2016)
26. American Thoracic Society International Conference: San Francisco, CA (2016)
27. FAMRI Scientific Research Symposium, Miami, FL (2016)
28. National Institutes of Health Regional Seminar, Baltimore, MD (2016)
29. Experimental Biology International Meeting, Boston, MA (2015)
30. FAMRI Scientific Research Symposium, Miami, FL (2015)
31. Society for the Study of Reproduction, San Juan, Puerto Rico (2015)
32. Society for Developmental Biology Annual Meetings, Snowbird, Utah (2015)
33. Experimental Biology International Meeting, San Diego, CA (2014)
34. FAMRI Scientific Research Symposium, Miami, FL (2014)
35. American Diabetes Association Meetings, San Francisco, CA (2014)
36. Am Society for Reproductive Immunology 34th Annual Meeting, New York, NY (2014)
37. International Union of Physiological Sciences Congress: Birmingham, England (2013)
38. Experimental Biology International Meeting, Boston, MA (2013)
39. Society for Developmental Biology Annual Meetings, Montreal, Canada (2012)
40. FAMRI Scientific Research Symposium, Miami, FL (2012)
41. Experimental Biology International Meeting, San Diego, CA (2012)
42. Gordon Research Conference: Lung Development, Injury and Repair, Newport, RI (2011)

43. Experimental Biology International Meeting, Washington DC (2011)
44. Society for Developmental Biology Annual Meetings, Chicago, IL (2011)
45. Experimental Biology International Meeting, Anaheim, CA (2010)
46. American Thoracic Society International Conference, New Orleans, LA (2010)
47. FAMRI Scientific Research Symposium, Miami, FL (2010)
48. International Society for Developmental Biologists, Edinburgh, Scotland (2009)
49. American Thoracic Society International Conference, San Diego, CA (2009)
50. FAMRI Scientific Research Symposium, Boston, MA (2009)
51. American Thoracic Society International Conference, Toronto, Canada (2008)
52. Experimental Biology International Meeting, San Diego, CA (2008)
53. FAMRI Scientific Research Symposium, Boston, MA (2008)
54. American Thoracic Society International Conference, San Francisco, CA (2007)
55. First Pan American Conference in Developmental Biology, Cancun, Mexico (2007)
56. FAMRI Scientific Research Symposium, Miami, FL (2007)
57. Society for Developmental Biology Annual Meetings, Ann Arbor, MI (2006)
58. 100th American Thoracic Society International Conference: San Diego, CA (2005)
59. Society for Developmental Biology Annual Meetings, San Francisco, CA (2005)
60. Annual International Vascular Biology Meeting, Toronto, Canada (2004)
61. American Thoracic Society International Conference, Seattle, WA (2003)
62. Annual Graduate Research Symposium, University of Cincinnati; Cincinnati, OH (2002)
63. Teratology International Meetings, Montreal, Canada (2001)

ORAL PRESENTATIONS AND LECTURES

1. **Vyne Therapeutics, Inc, (2023).** "Evaluation of VYN201 in Alleviating Pulmonary Fibrosis in a Bleomycin-Induced Murine Model." Seminar Presentation.
2. **Royal College of Pathologists International Lung Symposium (2022).** "Sensing of environmental particulates and coordinating resulting inflammation is modulated by RAGE signaling." Platform Presentation.
3. **State University of New York (SUNY) Downstate, Department of Medicine (2022).** "RAGE: Pulmonary functions and disease modeling." Seminar Presentation.
4. **University of Edinburgh Western General Hospital, Department of Pathology (2022).** "RAGE: Pulmonary functions and disease modeling." Seminar Presentation.
5. **Experimental Biology International Meeting, San Diego, CA (2020)** "Acute eCig vapor or SHS induces inflammatory signaling in the adult murine lung." Oral Presentation (Cancelled).
6. **Experimental Biology International Meeting, Orlando, FL (2019)** "RAGE and SAGE: Ameliorating COPD pathogenesis via RAGE Abrogation." Oral Presentation.
7. **Experimental Biology International Meeting, Orlando, FL (2019) "**RAGE implications during DNA Double Strand Breaks in trophoblast cells." Oral Presentation.
8. **Experimental Biology International Meeting, San Diego, CA (2018)** "Antenatal exposure to secondhand smoke impacts growth and cardiopulmonary energetics in 4-week-old mice." Oral Presentation.
9. **Experimental Biology International Meeting, San Diego, CA (2018)** "Differential expression of mTOR related molecules in the placenta of gestational diabetes mellitus (GDM), intrauterine growth restriction (IUGR) and preeclampsia patients." Oral Presentations.
10. **Experimental Biology International Meeting, San Diego, CA (2018)** "Semi-synthetic glycosaminoglycan ethers decrease receptors for advanced glycation end-products and increase AXL receptors in the lungs from secondhand smoke treated mice." Oral Presentation.

11. **American Association for Dental Research Meeting, Ft. Lauderdale, FL (2018) "**Reduction of CSE-induced Ca9-22 cell invasion by SAGEs." Oral Presentation.
12. **American Association for Dental Research Meeting, Ft. Lauderdale, FL (2018)** "Decreased inflammatory cytokines during Gas6-mediated invasion of gingival cells." Oral presentation.
13. **American Association for Dental Research Meeting, San Francisco, CA (2017) "**Gingival cells exposed to e-cigarette liquid express differential recognition receptors." Oral Presentation.
14. **American Association for Dental Research Meeting, San Francisco, CA (2017) "**Cigarette Smoke Extract Increases Invasion in Ca9-22 Gingival Cancer Cells." Oral Presentation.
15. **Experimental Biology International Meeting, San Diego, CA (2016)** "Organic Cation Transporter Novel Type-1 (OCTN-1) and Pulmonary Responses to Secondhand Tobacco Smoke (SHS)." Oral Presentation.
16. **Experimental Biology International Meeting, San Diego, CA (2016)** "Altered Inflammatory Responses in Tobacco Smoke-Exposed Mice that Over-Express the Tight Junctional Protein Claudin-6." Oral Presentation.
17. **Experimental Biology International Meeting, San Diego, CA (2016)** "Transgenic Up-Regulation of Claudin-6 Decreases Diesel Particulate Matter (DPM)-Induced Pulmonary Inflammation." Oral Presentation.
18. **Research Institute at Nationwide Children's Hospital, The Ohio State University. Child Health Research Center (CHRC) Seminar Series, Columbus, Ohio (2016)** "RAGE and the foreshadowing of lung disease." Oral Seminar Presentation.
19. **Experimental Biology International Meeting, Boston, MA (2015)** Platform Symposium: Neonatal Lung Development and Adult Lung Homeostasis: Common Molecular Mechanisms in Lung Disease. "RAGE mediation of developmental and adult pulmonary disorders"
20. **University Hospitals and Clinics, University of Heidelberg, Department of Inner Medicine (2013).** "RAGE: Pulmonary functions and disease modeling." Oral Seminar Presentation.
21. **Experimental Biology International Meeting, Boston, MA (2013)** "Developmental expression and transcriptional regulation of claudin-6 in the murine lung." Oral Presentation.
22. **Experimental Biology International Meeting, Boston, MA (2013)** "Over-expression of RAGE by proximal lung epithelial cells causes inflammation in adult mice." Oral Presentation.
23. **Experimental Biology International Meeting, Boston, MA (2013)** "RAGE signaling influences diesel particulate matter-induced inflammation in primary alveolar macs." Oral Presentation.
24. **Brigham Young University Physiology and Developmental Biology Seminar Series, Provo, UT (2012)** "RAGE of ALI: Conserved Pathways of Inflammatory Disease." Oral Presentation.
25. **Experimental Biology International Meeting, San Diego, CA (2012)** "RAGE signaling influences tobacco smoke-induced inflammation by pulmonary macrophages." Oral presentation.
26. **Experimental Biology International Meeting, San Diego, CA (2012)** "Diesel particulate matter (DPM) induces receptor for advanced glycation end-products (RAGE) expression by pulmonary macrophages." Oral Presentation.
27. **FAMRI Scientific Research Symposium, Miami, FL (2012)** "Characterization of a new mouse model of COPD via conditional over-expression of RAGE." Platform Oral Presentation.
28. **Roseman University of Health Sciences (2011-2016) "**Histology and Embryology for the first year Dental Student." Oral Presentation Series.
29. **Roseman University of Health Sciences (2011-2016) "**Pulmonary Biology for the first year Dental Student." Oral Presentation Series.

30. **School of Pharmacy and Pharmaceutical Sciences, Trinity College, Dublin Ireland (2011)** "Why all the RAGE: insight into lung development and disease." Oral Presentation.
31. **Experimental Biology International Meeting, Washington DC (2011)** "A new RAGE blocker, low anti-coagulant 2-O, 3-O desulfated heparin (ODSH), diminishes smoke-induced pulmonary inflammation in mice." Oral Presentation.
32. **Experimental Biology International Meeting, Washington DC (2011)** "Persistent over-expression of RAGE in adult mouse lung causes airspace enlargement and pulmonary inflammation coincident with emphysema." Oral Presentation.
33. **College of Chemistry and Biochemistry Seminar Series, BYU, Provo, UT (2011)** "Why all the RAGE: insight into the role of RAGE in lung development and disease." Oral Presentation.
34. **Southern Utah University Spring Biology Seminar Series, Cedar City, UT (2010)** "Correlations between RAGE and Lung Disease." Oral Presentation
35. **Brigham Young University Physiology and Developmental Biology Seminar Series, Provo, UT (2010)** "RAGE and Insights into Pulmonary Disease." Oral Presentation.
36. **FAMRI Scientific Research Symposium, Miami, FL (2009)** "The RAGE of Smoke Induced Pulmonary Disease." Platform Oral Presentation.
37. **Annual International Vascular Biology Meeting, Toronto, Canada (2004)** "Midkine regulates pulmonary vascular remodeling during hypoxia." Oral Presentation.
38. **The Teratology Society 41st Annual Meeting, Montreal, Canada (2001)** "Protection of Retinoic Acid-Induced Cleft Palate in Mice by Separate and Concomitant Administration of Folic Acid and Methionine." Oral Presentation.

INVITED SESSION CHAIR AT NATIONAL MEETINGS

1. **FAMRI Competitive Grant Review Priorities (2017)**. Title: Current and Ongoing COPD Funding Outlook and Directions.
2. **Experimental Biology International Meeting, Boston MA (2015)**. Session: American Physiological Society. Title: Neonatal Lung Development And Adult Lung Homeostasis—Common Molecular Mechanisms In Lung Disease
3. **Experimental Biology International Meeting, Washington DC (2011)**. Session: American Society for Investigative Pathology: Pulmonary Pathobiology. Title: ASPI-Inflammation.

RESEARCH PUBLICATIONS

Peer-Reviewed Publications Undergraduate co-authors are underlined

1. Curtis KL, Chang A, Van Slooten R, Cooper C, Kirkham M, Armond T, deBernardi Z, Pickett BE, Arroyo JA, and **Reynolds PR**. 2024. Availability of receptors for advanced glycation end-products (RAGE) influences differential transcriptome expression in lungs from mice exposed to chronic secondhand smoke (SHS). *Int J Mol Sci.,* in review.
2. Clarke D, Yeates E, Davis G, Harward K, Robertson P, Licari FW, Winden DR, **Reynolds PR**, and Arroyo JA. 2024. RAGE expression and invasiveness of oral squamous cell carcinoma cells via differential expression of matrix remodeling enzymes. *Frontiers in Physiol,* in review.
3. Curtis KL, Chang A, Johnston JD, Beard JD, Collingwood SC, LeCheminant JD, Peterson NE, South AJ, Farnsworth CB, Sanjel S, Bikman BT, Arroyo JA, and **Reynolds PR**. 2024. Differential inflammatory cytokine elaboration in serum from brick kiln workers in Bhaktapur, Nepal. *Int J Mol Sci.,* in review
4. Clarke D, Curtis K, Yeates E, Davis G, Harward K, Robinson P, Licari FW, Winden DR, **Reynolds PR**, Arroyo JA. 2024. RAGE expression and invasiveness of oral squamous cell carcinomas cells via differential expression of matrix remodeling enzymes. *J Oral Path Med,* in review.

5. Curtis KL, Hirschi KM, Tsai K, Clark ET, Stapley BM, Bikman BT, **Reynolds PR**, and Arroyo JA. 2024. Postnatal effects of antenatal secondhand smoke (SHS) exposure and the receptor for advanced glycation end-products (RAGE). *Reprod Med.,* 5, 1-11.
6. Robin H, Trudeau C, Robbins A, Chung E, Rahman E, Gangmark-Strickland O, Licari FW, Winden DR, Orr DL, Arroyo JA, and **Reynolds PR**. 2024. A potential role for receptors for advanced glycation end-products (RAGE) in the development of secondhand smoke-induced chronic sinusitis. *Curr. Issues Mol. Biol*, 46(1), 729-740.
7. Beard JD, Collingwood SC, LeCheminant JD, Peterson NE, **Reynolds PR**, Arroyo JA, South AJ, Farnsworth CB, Fong G, Heath T, Taylor M, Sanjel S, and Johnston JD. 2024. Personal breathing zone respirable dust and crystalline silica concentrations among workers at a brick kiln in Bhaktapur, Nepal. *JOEH,* DOI: 10.1080/15459624.2024.2311873.
8. Johnston JD, Collingwood SC, LeCheminant JD, Peterson NE, Reynolds PR, Arroyo JA, South AJ, Farnsworth CB, Chartier RT, Layton LN, Hu JH, Penrod MS, Sanjel S, and Beard JD. 2023. Personal exposure to fine particulate air pollution among brick workers in Nepal. *Atmosphere,* 14, 1783.
9. Curtis KL, Homer KW, Wendt RA, Stapley BM, Clark ET, Harward K, Chang A, Clarke DM, Arroyo JA and **Reynolds PR**. 2023. Inflammatory cytokine elaboration following secondhand smoke (SHS) exposure is mediated in part by RAGE signaling. *Int J Mol Sci.,* 24(21), 15645.
10. Walton CM, Saito E, Warren CE, Larsen JG, Remund NP, **Reynolds PR**, Hansen JM, and Bikman BT. 2023. Yerba maté (Ilex paraguariensis) supplement exerts beneficial, tissue-specific effects on mitochondrial efficiency and redox status in healthy adult mice. *Nutrients*, 15, 4454.
11. Clarke DM, Curtis KL, Wendt RA, Stapley BM, Clark ET, Beckett N, Campbell KM, Arroyo JA and **Reynolds PR**. 2023. Decreased expression of pulmonary homeobox NKX2.1 and surfactant protein C in developing lungs that over-express receptors for advanced glycation end-products (RAGE). *J. Dev. Biol.* 11,33.
12. Norton C Clarke D, Holmstrom J, Stirland I, **Reynolds PR**, Jenkins TG, and Arroyo JA 2023. Altered Placental Epigenetic Profiles in Preeclamptic and Intrauterine Growth Restricted Patients. *Cells,* 12(8):1130.
13. Robin HP, Trudeau CN, Robbins AJ, Chung EJ, Rahman E, Gangmark-Strickland OL, Jordan S, Licari FW, Winden DR, **Reynolds PR**, and Arroyo JA. 2022. Inflammation and invasion in oral squamous cell carcinoma (OSCC) cells exposed to electronic cigarette vapor extract. *Front Oncol,* 12:917862.
14. Curtis KL, Clarke D, Hanegan M, Stapley B, Wendt R, Beckett N, Litchfield C, Campbell K, **Reynolds PR**, and Arroyo JA. 2022. Lung inflammation is associated with preeclampsia (PE) development in the rat. *Cells,* 11, 1884.
15. Hirschi KM, Tsai KYF, Curtis KL, Davis GS, Theurer BK, Kruyer AMM, Homer KW, Chang A, Van Ry PM, Arroyo JA, and **Reynolds PR**. 2022. RAGE signaling during tobacco smoke-induced lung inflammation and potential therapeutic utility of SAGEs. *BMC Pulm Med,* 22(1):160.
16. Tsai KYF, Tullis B, Breithaupt KL, Fowers R, Jones N, Grajeda S, **Reynolds PR**, and Arroyo JA. 2021. A role for RAGE in DNA double strand breaks (DSBs) detected in pathological placentas and trophoblast cells. *Cells,* 10, 857.
17. Tsai KYF, Bikman BT, **Reynolds PR**, and Arroyo JA. 2021. Differential expression of mTOR related molecules in the placenta from gestational diabetes mellitus (GDM), intrauterine growth restriction (IUGR) and preeclampsia patients. *Repro Biol*, 21(2):100503.
18. Rose BJ, Weyand JA, Liu B, Smith JF, Perez BR, Goodman MA, Eggett DL, Arroyo JA, **Reynolds PR**, and Kooyman DL. 2021. Exposure to second-hand cigarette smoke exacerbates the

progression of osteoarthritis in a surgical induced murine model. *Histology and Histopath,* DOI: 10.14670/HH-18-311.

19. Tsai KYF, Tullis B, Mejia J, **Reynolds PR**, and Arroyo JA. 2020. Regulation of trophoblast cell invasion by Pyruvate Kinase isozyme M2 (PKM2). *Placenta* 103: 24-32.
20. Tsai KYF, Hirschi Budge KM, Lepre AP, Rhees MS, Ajdaharian J, Geiler J, Epperson DG, Astle KJ, Winden DR, Arroyo JA and **Reynolds PR**. 2020. Cell invasion, RAGE expression and inflammation in oral squamous cell carcinoma (CSCC) cells exposed to e-cigarette flavoring. *Clin Exp Dent Res*. 2020 Dec;6(6):618-625.
21. Hirschi KM, Tsai KYF, Davis T, Clark JC, Knowlton MN, Bikman BT, **Reynolds PR**, and Arroyo JA. 2020. Growth Arrest Specific Protein (Gas)-6/AXL Signaling Induces Preeclampsia (PE) in Rats. *Biol Reprod.* 102(1):81.
22. Gibbs JL, Dallon BW, Lewis JB, Walton CM, Arroyo JA, **Reynolds PR**, and Bikman BT. 2019. Diesel exhaust particle exposure compromises alveolar macrophage mitochondrial bioenergetics. *Int. J. Mol. Sci*., 20 (22): 5598; doi:10.3390.
23. Tsai KYF, Hirschi KM, Llavina S ,Davis T, Long M, Bennett A, Sitton B, Arroyo JA, and **Reynolds PR**. RAGE and AXL expression following secondhand smoke (SHS) exposure in mice. 2019. *Exp Lung Res*, 45:9-10, 297-309. DOI: 10.1080/01902148.2019.1684596
24. Mejia J, Hirschi K, Tsai KYF, Long M, Tullis B, Bitter EEK, Bikman BT, **Reynolds PR** and Arroyo JA. 2019. Differential placental ceramide levels during gestational diabetes mellitus (GDM). *Reprod Biol Endocrinol* 17(1):81.
25. Hirschi KM, Tsai KYF, Edwards MM, Hall P, Mejia JF, **Reynolds PR**, and Arroyo JA. 2019. The mTOR family of proteins and the regulation of trophoblast invasion by Gas6. *J Cell Signal* 4:2, DOI: 10.4172/2576-1471.1000203.
26. Poornejad N, Momtahan N, Salehi ASM, Scott D, Fronk C, Roeder BL, **Reynolds PR**, Bundy B, and Cook AD. 2018. Corrigendum: Efficient Decellularization of whole porcine kidneys improves reseeded cell behavior. *Biomed Mater.* doi: 10.1088/1748-605X/aadd22.
27. Hirschi KM, Chapman S, Hall P, Ostergar A, Winden DR, **Reynolds PR**, and Arroyo JA. 2018. Gas6 induces invasion and reduces inflammatory cytokines in oral squamous cell carcinoma cells. *J Oral Pathol Med*. 2018 Jun 1. doi: 10.1111/jop.12738.
28. Lewis JB, Bodine JS, Gassman JR, Munoz SA, Milner DC, Dunaway DM, Egbert KM, Monson TD, Broberg DS, Arroyo JA, and **Reynolds PR**. 2018. Transgenic up-regulation of Claudin-6 decreases fine diesel particulate matter (DPM)-induced pulmonary inflammation. *Environ Sci Pollut Res*, 25(18): 18179-88.
29. Lewis JB, Jimenez FR, Merrell BJ, Kimbler B, Arroyo JA, and **Reynolds PR**. 2018. The expression profile of Claudin family members in the developing mouse lung and expression alterations resulting from exposure to secondhand smoke (SHS). *Exp Lung Res*, 2018 Feb;44(1):13-24.
30. Chapman S, Mick M, Hall P, Mejia C, Sue S, Wase BA, Nguyen MA, Whisenant EC, Wilcox SH, Winden DR, **Reynolds PR**, and Arroyo JA. 2018. Cigarette smoke extract induces oral squamous cell carcinoma cell invasion in a receptor for advanced glycation end-product-dependent manner. *Eur J Oral Sci*, 2018 Feb;126(1):33-40.
31. Lewis JB, Mejia C, Jordan C, Monson TD, Bodine JS, Dunaway TM, Egbert KM, Lewis AL, Wright TJ, Ogden KC, Broberg DS, Hall PD, Nelson SM, Hirschi KM, **Reynolds PR** and Arroyo JA. 2017. Inhibition of the receptor for advanced glycation end-products (RAGE) protects from secondhand smoke (SHS)-induced intrauterine growth restriction (IUGR) in mice. *Cell Tissue Res,* 2017 Sep 26. doi: 10.1007/s00441-017-2691-z.
32. Kumar V, Fleming T, Terjung S, Gorzelanny C, Gebhardt C, Agrawal R, Mall MA, Ranzinger J, Zeier M, Madhusudhan T, Ranjan S, *Iserman B,* Liesz A*,* Deshpande D, Häring HU, Biswas SK, **Reynolds PR**, Hammes HP, Peperkok R, Angel P, Herzig S and Nawroth PP. 2017.

Homeostatic nuclear RAGE-ATM interaction is essential for efficient DNA repair. *Nuc Acid Res,* 2017 Aug 9. doi: 10.1093/nar/gkx705.

33. Poornejad N, Buckmiller E, Schaumann L, Wang H, Wisco J, Roeder B, **Reynolds P**, and Cook A. 2017. Re-epithelialization of whole porcine kidneys with renal epithelial cells. *J Tissue Eng* 8:1-22, DOI 10.1177/2041731417718809.
34. Taylor OJ, Thatcher MO, Carr ST, Gibbs J, Trumbull AM, Harrison ME, Winden DR, Pearson MJ, Tippetts TS, Holland WL, **Reynolds PR,** and Bikman BT. 2017. High-mobility Group Box 1 disrupts metabolic function with cigarette smoke exposure in a ceramide-dependent manner. *Int J Mol Sci.* 18(5):1099; doi: 10.3390/ijms18051099.
35. Napa K., Baeder AC, Witt JE, Rayburn ST, Miller MG, Dallon BW, Gibbs JL, Wilcox SH, Winden DR, **Reynolds PR,** and Bikman BT. 2017. LPS from *P. Gingivalis* negatively alters gingival cell mitochondrial bioenergetics. *Int J Dentistry* 2017: 2697210.
36. Monson T, Wright T, Galan HL, **Reynolds PR,** and Arroyo JA. 2017. Caspase dependent and independent mechanisms of apoptosis across gestation in a sheep model of placenta insufficiency and intrauterine growth restriction. *Apoptosis* 22(5): 710-718.
37. Lewis JB, Hirschi KM, Arroyo JA, Bikman BT, Kooyman DT, and **Reynolds PR.** 2017. Plausible roles for RAGE in conditions exacerbated by direct and indirect (secondhand) smoke exposure. *Int J Mol Sci.* 18(3):652; doi:10.3390/ijms18030652.
38. Sanders NT, Dutson DJ, Durrant JW, Lewis JB, Wilcox SH, Winden DR, Arroyo JA, Bikman BT, and **Reynolds PR.** 2017. Cigarette Smoke Extract (CSE) Induces RAGE-Mediated Inflammation in the Ca-9-22 Gingival Carcinoma Epithelial Cell Line. *Archives of Oral Biology* 80:95-100.
39. Black CS, Creapeau PK, Sheffiend ID, Macdonald JR, Wooton DJ, Maek M, Eggett DL, **Reynolds PR**, and Kooyman DL. 2017. Identification of the tidemark line of calcification in osteoarthritic cartilage using a stain for alkaline phosphatase. *J Arthritis* 6:230. Doi:10.4172/2167-7921.1000230.
40. Jimenez FR, Lewis JB, Belgique ST, Milner DC, Lewis AL, Dunaway TM, Egbert KM, Winden DR, Arroyo JA, and **Reynolds PR.** 2016. Cigarette smoke and decreased oxygen tension inhibit pulmonary Claudin-6 expression. *Exp Lung Res*, Dec 42(10):440-452.
41. Lewis JB, Milner DC, Lewis AL, Dunaway TM, Egbert KM, Albright SC, Merrell BJ, Monson TD, Broberg DS, Gassman JR, Thomas DB, Arroyo JA and **Reynolds PR.** 2016. Up-regulation of Claudin-6 in the distal lung impacts secondhand smoke-induced inflammation. *Int J Environ Res Public Health*, 2016 Oct 17;13(10). pii: E1018.
42. Mejia C, Lewis J, Jordan C, Mejia J, Ogden C, Monson T, Winden D, **Reynolds PR,** and Arroyo JA. 2016. Decreased activation of placental mTOR family members is associated with the induction of intrauterine growth restriction (IUGR) by secondhand smoke (SHS) in the mouse. *Cell Tissue Res,* 9 Sept 2016, **DOI**: 10.1007/s00441-016-2496-5.
43. Poornejad N, Schaumann LB, Buckmiller EM, Momtahan N, Gassman JR, Ma HH, Roeder BL, **Reynolds PR** and Cook AD. 2016. The impact of decelluralization agents on renal tissue extracellular matrix. *J Biomater Appl* 31(4):521-533.
44. Chavez EM, Mecham DK, Black JW, Graf JW, Wilhelm SK, Anderson KM, Mitchell JA, Macdonald JR, Hollis WR, Eggett DL, **Reynolds PR,** and Kooyman DL. 2016. Malocclusion Model of Temporomandibular Joint Osteoarthritis in Mice with and Without Receptor For Advanced Glycation End Products. *Archives of Oral Biology*, 69:47-62.
45. Long E, Motwani R, Reece D, Pettit N, Hepworth J, Wong P, **Reynolds PR**, and Seegmiller RE. 2016. The role of TGF-b1 in osteoarthritis of the temporomandibular joint in two genetic mouse models. *Arch Oral Biol* 67:68-73.

46. Poornejad N, Momtahan N, Salehi ASM, Scott D, Fronk C, Roeder BL, **Reynolds PR**, Bundy B, and Cook AD. 2016. Efficient decellularization of whole procine kidneys improves reseeded behavior. *Biomed Materials* 11(2):025003.
47. Baeder AC, Napa K, Richardson ST, Taylor OJ, Anderson SG, Wilcox SH, Winden DR, **Reynolds PR**, and Bikman BT. 2016. Oral Gingival Cell Cigarette Smoke Exposure Induces Muscle Cell Metabolic Disruption. *Int J Dentistry* 2016: 2763160.
48. Alexander KL, Mejia CA, Jordan C, Nelson MB, Howell BM, Jones CM, **Reynolds PR**, and Arroyo JA. 2016. Differential Receptor for Advanced Glycation End-Products (RAGE) Expression in Preeclamptic, Intrauterine Growth Restricted, and Gestational Diabetic Placentas. *Am J Reprod Immunol*. 75(2):172-180.
49. Kimball R, Wayment M, Merrill D, Wahlquist T, **Reynolds PR**, and Arroyo JA. 2015. Hypoxia reduces placental mTOR activation in a hypoxia-induced model of intrauterine growth restriction (IUGR). *Physiol Rep* 3(12):e12651.
50. Poornejad N, Nielson J, Morris R, Gassman J, **Reynolds PR**, Roeder BL, and Cook AD. 2015. Comparison of four decontamination treatments on porcine renal dECM structure, composition, and support of human RCTE cells. *J Biomater Appl* 0885328215615760, doi:10.1177/0885328215615760
51. Siebert M, Wilhelm SK, Kartchner JZ, Mecham D, **Reynolds PR**, and Kooyman DL. 2015. Effect of pharmacological blocking of TLR4 on osteoarthritis in mice. *J Arthritis*: 164. Doi:10.4172/2167-7921.1000164.
52. Olsen DS, Goar WA, Nichols BA, Bailey KT, Christensen SL, Merriam KR, **Reynolds PR,** Wilson E, Weber KS, and Bridgewater LC. 2015. Targeted mutation of nuclear bone morphogenetic protein 2 (nBMPR2) impairs secondary immune response in a mouse model. BioMed Res Int, 2015:975789. doi:10.1155/2015/975789.
53. Momtahan N, Poornejad N, Struk JA, Castleton AA, Herrod BJ, Vance BR, Eatough JP, Roeder BL, **Reynolds PR,** and Cook AD. 2015. Automation of pressure control improves whole porcine heart decellularization. *Tissue Engineering C*, DOI: 10.1089/ten.tec.2014.0709.
54. Jimenez FR, Belgique ST, Lewis JB, Albright SA, Jones CM, Howell BM, Mika AP, Jergensen TR, Gassman JR, Morris RJ, Arroyo JA, and **Reynolds PR.** 2015. Conditional pulmonary over-expression of Claudin-6 (Cldn6) during embryogenesis delays lung morphogenesis. *Int J Dev Biol,* 2015;59(10-12):479-85.
55. Nelson MB, Swensen AC, Winden DR, Bodine JS, Bikman BT, and **Reynolds PR.** 2015. Cardiomyocyte mitochondrial respiration is reduced by receptor for advanced glycation end-products (RAGE) signaling in a ceramide-dependent manner. *AJP: Heart and Circulation Physiology* 309:H63-H69.
56. Poornejad N, Frost TS, Scott DR, Elton BB, **Reynolds PR**, Roeder BL, and Cook AD. 2015. Freezing/thawing without cryoprotectant damages native but not decellularized porcine renal tissue. *Organogenesis* 11(1):30-45.
57. Tippetts TS, Winden DR, Swensen AC, Nelson MB, Thatcher MO, Saito RR, Condie TB, Simmons KJ, Judd AM, **Reynolds PR**, and Bikman BT. 2014. Cigarette smoke increases cardiomyocyte ceramide accumulation and inhibits mitochondrial respiration. *BMC Cardiovasc Disord,* 14(1):165.
58. Bodine BG, Bennion BG, Leatham E, Jimenez FR, Wright AJ, Jergensen ZR, Erickson CJ, Jones CM, Johnson JP, Knapp SM, and **Reynolds PR** 2014. Conditionally induced RAGE expression by proximal airway epithelial cells in transgenic mice causes lung inflammation. *Respir Res,* 15(1):133.
59. Winden DR, Barton DB, Betteridge BC, Bodine JS, Jones CM, Rogers GD, Chavarria M, Wright AJ, Jergensen ZR, Jimenez FR, and **Reynolds PR** 2014. Antenatal exposure of maternal

secondhand smoke (SHS) increases fetal lung expression of RAGE and induces RAGE-mediated pulmonary inflammation. *Respir Res,* 15(1):129.

60. Thatcher MO, Tippetts TS, Nelson MB, Swensen AC, Winden DR, Hansen ME, Anderson MC, Johnson IE, Porter JP, **Reynolds PR**, and Bikman BT 2014. Ceramides mediate cigarette smoke-induced metabolic disruption in mice. *AJP: Endocrine Metabolism,* 307(10):E919-27.
61. Wood TT, Winden DR, Marlor DR, Wright AJ, Jones CM, Chavarria M, Rogers GD, and **Reynolds PR** 2014. Acute secondhand smoke-induced pulmonary inflammation is diminished in RAGE knock out mice. *AJP: Lung Cell Mol Physiol.* 307(10):E919-27.
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63. Barton DB, Betteridge BC, Earley TD, Curtis CS, Robinson AB, and **Reynolds PR** 2014. Primary alveolar macrophages exposed to diesel particulate matter increase RAGE expression and activate RAGE signaling. *Cell Tissue Res* 358(1):229-238.
64. Winden DR, Ferguson NT, Bukey BR, Geyer AJ, Wright AJ, Jergensen ZR, Robinson AB, Stogsdill JR, and **Reynolds PR** 2013**.** Conditional over-expression of RAGE by embryonic alveolar epithelium compromises the respiratory membrane and impairs endothelial cell differentiation. *Respir Res* 14(1):108.
65. Larkin DJ, Kartchner JZ, Doxey AS, Hollis WR, Rees JL, Wilhelm SK, Draper CS, Peterson DM, Jackson GG, Ingersoll C, Haynie SS, Chavez E, **Reynolds PR**, Kooyman DL 2013. Inflammatory markers associated with osteoarthritis after destabilization surgery in young mice with and without Receptor for Advanced Glycation End-Products (RAGE). *Frontiers in Integ Physiol* **4**: 121. doi: 10.3389/fphys.2013.00121.
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68. Robinson AB, Stogsdill JA, Lewis JP, Wood TT, and **Reynolds PR** 2012. RAGE and tobacco smoke: Insights into modeling Chronic Obstructive Pulmonary Disease. *Frontiers in Resp Physiol* **3:**301. doi: 10.3389/fphys.2012.00301.
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ABSTRACTS: PRESENTED AT NATIONAL OR INTERNATIONAL MEETINGS

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