**CURRICULUM VITAE**

**Joshua D. Preston**

**I. Personal Information:**

**Residence:** Decatur, GA 30033

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**II. Education:**

**2015-2018: University of Kentucky: Lexington, KY**

* Bachelor of Science: Biology
* Mathematics Minor
* Honors Program
* GPA: 4.0

**2019-Present: Emory University (School of Medicine and Laney Graduate School): Atlanta, GA**

* MSTP Program
* MD: Estimated completion spring 2026; M1 – M3 years completed 2019-2022
* PhD (Nutrition and Health Sciences): Estimated completion Spring 2025

**III. Licensure Exams and Certifications**

**United States Medical Licensure Exam – Step 1:** Completed Jan. 2022

**United States Medical Licensure Exam – Step 2:** Completed Jan. 2023

**United States Medical Licensure Exam – Step 3:** Estimated completion 2027

**IV. Research Affiliations and Expertise**

**2015-2019:** Dr. Kevin Pearson Laboratory, Center for Research in Obesity and Cardiovascular Disease (COCVD), University of Kentucky, Lexington, KY (Undergraduate Student)

* *Techniques*: real-time quantitative polymerase chain reaction (RT qPCR), NanoString, Western Blotting, cell culture, ELISA, luciferase assay, radiolabeled transport assays, glucose tolerance test, animal (rodent) husbandry, tissue collection
* *Software and Skills:* SigmaPlot, GraphPad, Microsoft Excel, WebMev
* *Expertise*: Metabolism, Pregnancy, Aging, Sexual Dimorphisms, Developmental Origins Hypothesis, Endocrinology, Toxicology

**2015-2019:** University of Kentucky Superfund Research Center Undergraduate Trainee, University of Kentucky, Lexington, KY (Undergraduate Student)

**2017:** Dr. Rafael De Cabo Laboratory, National Institutes of Health Summer Internship Program in Biomedical Research, National Institute on Aging, Baltimore, MD (Undergraduate Student)

* *Techniques:* western blotting, immunoprecipitation, cancer cell culture
* *Software and Skills:* ImageJ
* *Expertise*: Aging, Senescence, Metabolism, Cancer, Insulin Signaling, Signal Transduction

**2022-Present:** Dr. Dean P. Jones Clinical Biomarkers Lab, Emory University SOM (Graduate Student)

* *Techniques*: untargeted metabolomics, metabolome-wide association studies
* *Software and Skills:* R, xMWAS
* *Expertise*: Aging, Metabolism, Experimental Gerontology
* *PhD dissertation committee*: Dean P. Jones, PhD; Rafael de Cabo, PhD; Thomas R. Ziegler, MD; Jessica Alvarez, PhD, RD

**2022-Present:** Dr. Rafael De Cabo Lab, National Institute on Aging, Baltimore, MD (NIH Special Volunteer)

* *Techniques*: longitudinal aging studies
* *Expertise*: Aging, Metabolism, Experimental Gerontology

**V. Publications**

* [*Google Scholar*](https://scholar.google.com/citations?user=_ZUkfa4AAAAJ&hl=en) *Profile*
* [*ResearchGate*](http://researchgate.net/profile/Joshua_Preston2) *Profile*
* [*ORCID ID*](https://orcid.org/0000-0001-9834-3017)

1. **"Developmental Origins of Healthspan and Lifespan: A Mini Review”. Joshua D. Preston**, Leryn J. Reynolds, and Kevin J. Pearson. *Gerontology* 64.3 (2018): 237-245.
2. **"Smoking during pregnancy increases chemerin expression in neonatal tissue”**. Leryn J. Reynolds, Niraj J. Chavan, Logan B. DeHoff, **Joshua D. Preston**, Hannah F. Maddox, John M. O’Brien, David A. Armstrong, Carmen J. Marsit, and Kevin J. Pearson. *Experimental Physiology* 104.1 (2019): 93-99.
3. **“NQO1 Protects Obese Mice Through Improvements in Glucose and Lipid Metabolism”.** Andrea Di Francesco, Youngshim Choi, Michel Bernier, Yingchun Zhang, Alberto Diaz-Ruiz, Miguel A. Aon, Ahmed Ali, Krystle Kalafut, Margaux R. Ehrlich, Kelsey Murt, Kevin J. Pearson, Sophie Levan, **Joshua D. Preston**, Alejandro Martin-Montalvo, Cole R. Michel, Diana M.Willmes, Christine Henke, Placido Navas, Jose Manuel Villalba, David Siegel, Kristofer Fritz, Shyam Biswal, David Ross, and Rafael de Cabo. *npj Aging and Mechanisms of Disease 6.1 (2020): 1-18.*
4. **“Chronic exposure to cadmium induces differential methylation in mice spermatozoa”.** Wesley N. Saintilnord, Sara Y. N. Tenlep, **Joshua D. Preston,** Eleonora Duregon, Jason E. DeRouchey, Jason M. Unrine, Rafael de Cabo, Kevin J. Pearson, Yvonne N. Fondufe-Mittendorf. *Toxicological Sciences (2021).*
5. **“Physical Activity during Pregnancy Alters Gene Expression in Neonatal Tissue”.** Leryn J. Reynolds, Olga Vsevolozhskaya, Brittany B. Rice, Niraj R. Chavan, Adam Dugan, Hannah F. Maddox, **Joshua D. Preston**, Logan B. DeHoff, and Kevin J. Pearson. *Physiology International (2021).*
6. **“PCB Exposure During Pregnancy Significantly Affects Maternal and Fetal Gene Expression”.** Cetewayo S. Rashid, **Joshua D. Preston**, Sara Ngo Tenlep, Marissa K. McDowell, Eric M. Blalock, Changcheng Zhou, Hollie I. Swanson, and Kevin J. Pearson. *Reproductive Toxicology (in press 4/2023)*
7. **“Sex Differences in Type 2 Diabetes: an Opportunity for Personalized Medicine”.** Meredith L. Johnson\*, **Joshua D. Preston\*,** Cetewayo S. Rashid, Kevin J. Pearson, and J. Nina Ham. *Submitted to Biology of Sex Differences 5/2023. (\* = co-first).*
8. **“Cutaneous T cell lymphoma (CTCL) with CNS involvement: A case series and review of the literature”.** **Joshua D. Preston**, Caroline S. Jansen, Siddhartha Kosaraju, Tim Niyogusaba, Tony Z. Zhuang, Sally A. Williams, Spencer K. Hutto, Mary Jo Lechowicz, Pamela B. Allen. *Submitted to Leukemia and Lymphoma 5/2023.*
9. **“‘TB Saved My Life’: a Pott’s Disease Complication Leading to Early Detection of Gallbladder Adenocarcinoma”. Joshua D. Preston**, Christopher J. Krebs, Tyler S. Reynolds, Shannon O’Brien, Richard A. Gullick, and Milton D. Boden. *Submitted to Annals of Internal Medicine: Clinical Cases 5/2023*
10. **“A Call for Spaced Repetition in Medical Education”.** Troy O. Marxen, Simon Akhnoukh, Josef C. Novack, Katya Van Anderlecht, Emily Jung, Benjamin French, **Joshua D. Preston**, and Jennifer O. Spicer. *Submitted to The Clinical Teacher 5/2023*
11. **“Sex and Diet Impact Glucose Uptake in Mice: A Focus on Adipose Tissue”.** **Joshua D. Preston\***,Bisoye Towobola-Adedeji\*, Nicholas A. Devanney\*, Stevi S. Howard, Sara Ngo Tenlep, Leryn J. Reynolds, Fallon R. Slone, Claire L. Crosby, Meredith L. Johnson, Logan B. DeHoff, J. Nina Ham, Lance A. Johnson, Terry D. Hinds Jr., and Kevin J. Pearson. *In preparation for Cell Metabolism (\* = co-first).*
12. **“Virtual Administration of Montreal Cognitive Assessment (MoCA) using Zoom**Ô **for Outpatient Telemedicine Encounters: Feasibility and Methodology”.** Sarah J. Coolidge **Joshua D. Preston**, Shannon Duffy, Felicia Goldstein, Sochima Ochije, Ashley A. Subler, Adriana P. Hermida. *In preparation.*

**VI. Research Support**

1. **University of Kentucky 2016 Summer Research and Creativity Grant-** *“Maternal cigarette smoke exposure and offspring obesity and type 2 diabetes risk”*
2. **2018 Bucks for Brains Summer Research Program**
3. **NIH Medical Scientist Training Program Grant, T32 GM008169**

**VII. Honors, Awards, and Recognitions**

**2015 (University):** Interfraternal Council Scholarship, University of Kentucky

**2015 (Local):** “Service Above Self” Scholarship, Nicholasville Rotary Club

**2015 (State):** Citizenship, Leadership, Athletics, Sportsmanship, Scholarship (CLASS) Scholarship, KHSAA

**2015, 2016, 2017, 2018 (University):** Dean’s List, University of Kentucky

**2015, 2016, 2017, 2018 (University):** Provost Scholarship, University of Kentucky

**2016 (University):** University of Kentucky Summer Research and Creativity Grant

**2016, 2017, 2018 (University):** Lewis Honors College Student Skills Development Award

**2017, 2018 (University):** University of Kentucky Donovan Scholarship in Gerontology

**2017 (National):** NIH Summer Internship Program in Biomedical Research (SIP), National Institute on Aging

**2017 (National):** Astronaut Scholarship

**2017, 2018 (University):** Undergraduate Research Travel Grant

**2017 (University):** First Place: Oswald Research and Creativity Competition

**2018 (University):** University of Kentucky Bucks for Brains Summer Research Program Awardee

**2018 (University):** Lewis Honors College Kate Johnson Award

**2018 (National):** Featured in NIEHS Superfund Research Program Monthly Trainee Spotlight

**2018 (University):** Honorable Mention: Oswald Research and Creativity Competition

**2018 (University):** Honorable Mention: 5 Minute Fast Track Research Competition

**2019 (University):** Alumni Speaker at 1st annual University of Kentucky Entrepreneur Showcase

**2019 (University):** Undergraduate Research Faculty Mentor of the Year Award Review Committee Member

**2020 (National):** PedsEndo Discovery Program Award, Pediatric Endocrine Society

**2020 (National):** Featured in Pediatric Endocrine Society President’s Letter

**2022 (University):** “The Hatchery” Summer Startup Grant, Emory University

**VIII. Campus and Community Involvement**

**2015-2016:** President: Woodland Glen V Hall Government. University of Kentucky (UK)

**2015-2016:** Member: Interprofessional Healthcare Residential College. UK

**2014-2016:** Volunteer: Summer Music Camp. Festival of the Bluegrass

**2015-2017:** President: Student Bluegrass Music Coalition. UK

**2015-2017:** Member: Pre-med Activities Council. UK

**2016-2018:** Volunteer: Ashland Terrace Assisted Living Home

**2017-2019:** Member: Tates Creek Presbyterian Church (choir, student ministry, retirement home ministry)

**2019-2020:** Recruitment Hosting Representative, MD/PhD Program Student Association. EUSOM School of Medicine

**2019-2021:** MD/PhD Program Student Association. Emory University School of Medicine (EUSOM)

**2020-Present:** Director of Planning, Logistics, and Finance, Emory Medical Students for Life. EUSOM School of Medicine

**2020-Present:** Mentor: American Physician Scientist Association (APSA) Undergraduate Mentorship Program

**2022-Present:** Member: All Souls Anglican Church

**IX. Professional Memberships**

Christian Medical and Dental Association

American College of Physicians

**X. National and International Abstracts/Presentations**

1. **(Oral Presentation)- “Maternal Exercise Alters Offspring Adipogenesis”.** Leryn J. Reynolds, **Joshua D. Preston**, Lindsay G. Carter, and Kevin J. Pearson. *Integrative Biology of Exercise, Phoenix, AZ. 2016.*
2. **(Poster Presentation)- “Smoking during Pregnancy Increases Chemerin Expression in Neonatal Tissue”.** Kevin J. Pearson, Niraj R. Chavan, **Joshua D. Preston**, James R. Pauly, John M. O’Brien, Carmen J. Marsit, and Leryn J. Reynolds. *Society of Toxicology Annual Meeting, Baltimore, MD. 2017.*
3. **(Oral Presentation)-** “**Maternal Nicotine Exposure Increases Offspring Adiposity and Glucose Intolerance”. Joshua D. Preston**, Leryn J. Reynolds, Sara N. Tenlep, Keegan W. Sammons, James R. Pauly, and Kevin J. Pearson.*National Conference on Undergraduate Research, Memphis, TN. 2017.*
4. **(Poster Presentation)-** “**Maternal Exercise Alters Lipid Accumulation in Offspring”.** Madeline T. Weltzer, Leryn J. Reynolds, Lindsay G. Carter, **Joshua D. Preston**, Kevin J. Pearson. National Conference on Undergraduate Research, Memphis, TN. 2017.
5. **(Poster Presentation)-** **“The Role of NQO1 in mTORC2/Akt Signaling”. Joshua Preston**, Andrea Di Francesco, Krystle Kalafut, Tyler Rhinesmith, Clara Di Germanio, Michel Bernier, and Rafael de Cabo.*NIH Summer Intern Poster Day, Bethesda, MD. 2017.*
6. **(Poster Presentation)-** **“The Role of NQO1 in mTORC2/Akt Signaling”. Joshua Preston**, Andrea Di Francesco, Krystle Kalafut, Tyler Rhinesmith, Clara Di Germanio, Michel Bernier, and Rafael de Cabo.*National Institute on Aging Summer Student Poster Day, Baltimore, MD. 2017.*
7. **(Poster Presentation)-** “**Exposure to PCB126 during the Nursing Period Significantly Impairs Early Life Glucose Tolerance” Joshua D. Preston**, Keegan W. Sammons, Sara N. Tenlep, Leryn J. Reynolds, Hollie I. Swanson, and Kevin J. Pearson. *NIEHS Superfund Research Program Annual Meeting, Philadelphia, PA. 2017.*
8. **(Poster Presentation)-** “**PCB Exposure during Pregnancy Significantly Affects Maternal and Fetal Gene Expression”. Joshua D. Preston,** Cetewayo S. Rashid, Sara Ngo Tenlep, Hollie I. Swanson, and Kevin J. Pearson.*Society of Toxicology Annual Meeting, San Antonio, TX. 2018.*
9. **(Poster Presentation)-** “**Exposure to PCB126 during the Nursing Period Significantly Impairs Early-Life Glucose Tolerance”.** Brittany B. Rice, **Joshua D. Preston**, Keegan W. Sammons, Sara N. Tenlep, Leryn J. Reynolds, Hollie I. Swanson, and Kevin J. Pearson. *Society of Toxicology Annual Meeting, San Antonio, TX. 2018.*
10. **(Oral Presentation)- “Physical Activity during Pregnancy Alters Gene Expression in Neonatal Tissue”.** Leryn J. Reynolds, Niraj R. Chavan, Brittany B. Rice, Hannah F. Maddox, **Joshua D. Preston**, Logan B. DeHoff, and Kevin J. Pearson. *The American College of Sports Medicine Annual Meeting, Minneapolis, MN. 2018.*
11. **(Poster Presentation)-** **“Regulation of Akt Signaling by NQO1”. Joshua Preston**, Andrea Di Francesco, Krystle Kalafut, Tyler Rhinesmith, Clara Di Germanio, Michel Bernier, and Rafael de Cabo. *The Fourteenth International Symposium on Neurobiology and Neuroendocrinology of Aging, Bregenz, Austria. 2018.*
12. **(Oral Presentation)- “Chemerin is a Biomarker of Aging in Mice”.** Stevi S. Howard, **Joshua D. Preston**, Clara Di Germanio, Michel Bernier, Rafael de Cabo, and Kevin J. Pearson. *National Conference on Undergraduate Research, Kennesaw, GA. 2019.*
13. **(Poster Presentation)- “Sex and Diet Impact Glucose Uptake in Mice: A Focus on Adipose Tissue”.** **Joshua Preston**, Bisoye Towobola, Sara N. Tenlep, Leryn Reynolds, Fallon Slone, Claire Crosby, Stevi Howard, Meredith Johnson, and Kevin Pearson. *4th National Conference on Prevention of Diabetes and Its Complication, Atlanta, GA. 2019.*
14. **(Poster Presentation)- “Sex and Diet Impact Glucose Uptake in Mice: A Focus on Adipose Tissue”.** **Joshua Preston**, Bisoye Towobola, Sara N. Tenlep, Leryn Reynolds, J. Nina Ham, and Kevin Pearson. *Pediatric Endocrine Society 2020 Annual Meeting, Fort Worth, TX. 2020.*

**XI. Local or University Abstracts/Presentations**

1. **(Poster Presentation)- “Skin: a Proxy Tissue for the Investigation of Whole Body Glucose Homeostasis”.** Logan B. DeHoff, Leryn J. Reynolds, Sara Y. Ngo Tenlep, **Joshua D. Preston**, and Kevin J. Pearson. *University of Kentucky Barnstable Brown Diabetes and Obesity Research Day, Lexington, KY. 2016.*
2. **(Poster Presentation)-** **“Maternal Nicotine Exposure Increases Offspring Adiposity and Glucose Intolerance”. Joshua D. Preston**, Leryn J. Reynolds, Sara N. Tenlep, Keegan W. Sammons, James R. Pauly, and Kevin J. Pearson.*University of Kentucky Pharmacology and Nutritional Sciences Summer Undergraduate Poster Day, Lexington, KY. 2016.*
3. **(Oral Presentation)-** **“Maternal Nicotine Exposure Increases Offspring Adiposity and Glucose Intolerance” Joshua D. Preston**, Leryn J. Reynolds, Sara N. Tenlep, Keegan W. Sammons, James R. Pauly, and Kevin J. Pearson.*Kentucky Honors Roundtable, Murray State University, Murray, KY. 2016.*
4. **(Poster Presentation)-** “**Maternal Nicotine Exposure Increases Offspring Adiposity and Glucose Intolerance” Joshua D. Preston**, Leryn J. Reynolds, Sara N. Tenlep, Keegan W. Sammons, James R. Pauly, and Kevin J. Pearson.*Pharmacology and Nutritional Sciences Annual Retreat, University of Kentucky, Lexington, KY. 2017.*
5. **(Oral Presentation)-** **Maternal Nicotine Exposure Increases Offspring Adiposity and Glucose Intolerance”. Joshua D. Preston**, Leryn J. Reynolds, Sara N. Tenlep, Keegan W. Sammons, James R. Pauly, and Kevin J. Pearson.*Kentucky Honors Roundtable, University of Kentucky, Lexington, KY. 2017.*
6. **(Poster Presentation)-** **“Maternal Nicotine Exposure Prior to and during Pregnancy and Nursing Increases Offspring Obesity Risk”. Joshua D. Preston**, Leryn J. Reynolds, Sara N. Tenlep, Keegan W. Sammons, James R. Pauly, and Kevin J. Pearson.*Posters-At-The-Capitol, Frankfort, KY. 2017.*
7. **(Poster Presentation)-** “**Maternal Nicotine Exposure Increases Offspring Adiposity and Glucose Intolerance”. Joshua D. Preston**, Leryn J. Reynolds, Sara N. Tenlep, Keegan W. Sammons, James R. Pauly, and Kevin J. Pearson.*University of Kentucky Center for Clinical and Translational Science Spring Conference, Lexington, KY. 2017.*
8. **(Oral Presentation)-** **“Maternal Nicotine Exposure Prior to and during Pregnancy and Nursing Increases Offspring Obesity Risk” Joshua D. Preston**, Leryn J. Reynolds, Sara N. Tenlep, Keegan W. Sammons, James R. Pauly, and Kevin J. Pearson. *University of Kentucky Showcase of Undergraduate Scholars, Lexington, KY. 2017*
9. **(Poster Presentation)-** **“The Regulation of Akt Signaling by NQO1”. Joshua Preston**, Andrea Di Francesco, Krystle Kalafut, Tyler Rhinesmith, Clara Di Germanio, Michel Bernier, and Rafael de Cabo.*University of Kentucky Cardiovascular Research Day, Lexington, KY. 2017.*
10. **(Poster Presentation)-** **“Chemerin is a Biomarker of Aging in Mice”.** Claire L. Crosby, **Joshua D. Preston**, Stevi S. Howard, Clara Di Germanio, Michel Bernier, Rafael de Cabo, and Kevin J. Pearson. *University of Kentucky Center for Clinical and Translational Science Spring Conference, Lexington, KY. 2019.*
11. **(Poster Presentation)- “Chemerin is a Biomarker of Aging in Mice”.** Claire L. Crosby, **Joshua D. Preston**, Stevi S. Howard, Clara Di Germanio, Michel Bernier, Rafael de Cabo, and Kevin J. Pearson. *University of Kentucky Showcase of Undergraduate Scholars, Lexington, KY. 2019.*
12. (**Grand Rounds Presentation)- “My Neck is Sore and My Hand is Numb When I Breastfeed My Baby”.** Milton D. Boden, **Joshua D. Preston.** *CME Infectious Disease Conference, Emory Decatur Hospital, Decatur, GA. 2020.*

**XII. Research Advisor References**

Dean P. Jones, PhD

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Kevin J. Pearson, PhD

Professor, Department of Pharmacology and Nutritional Sciences

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J. Nina Ham, MD

Associate Professor of Pediatrics,

Division of Pediatric Endocrinology, Diabetes, and Metabolism,

Columbia University Vagelos College of Physicians and Surgeons, New York, NY

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**XIII. Clinical/Medical Education References**

Lisa B. Bernstein, MD

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Robert (Bob) E. Gross, MD, PhD

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