Jenifer Monks, Ph.D.

12700 E 19th Avenue
Aurora, Colorado 80045
jenifer.monks@cuanschutz.edu

Last updated: March 13, 2026

Current Position

Assistant Professor
Division of Reproductive Sciences
Department of Obstetrics and Gynecology
University of Colorado Anschutz School of Medicine
Aurora, Colorado

Education

Postdoctoral Fellowship **2006-2009**
Division of Reproductive Sciences,
Department of Obstetrics & Gynecology,
University of Colorado Anschutz Medical Campus, Aurora, Colorado

Postdoctoral Fellowship **2000-2004**
Division of Cell Biology,
Department of Pediatrics,
National Jewish Medical Center, Denver, Colorado

Ph.D. in Cell & Developmental Biology **1991-1999**
University of Colorado Health Sciences Center, Denver, Colorado

B.S. in General Chemistry (Dean's List 1990, 1991) **1987-1991**
Harvey Mudd College, Claremont, California

Professional Positions and Experience

Academic Appointments

Assistant Professor, Division of Reproductive Sciences, Department of Obstetrics and Gynecology, University of Colorado Anschutz Medical Campus, Aurora, Colorado **2018 – present**

Instructor, Division of Reproductive Sciences, Department of Obstetrics and Gynecology, University of Colorado Anschutz Medical Campus, Aurora, Colorado **2009 – 2018**

Professional Development

The Academy of Research Mentoring Educators (ARME) **2025**
Center for the Improvement of Mentored Experiences in Research (CIMER) Training
University of Colorado School of Medicine
Aurora, Colorado

Women's Leadership Training **2022 – 2023**
University of Colorado School of Medicine
Aurora, Colorado

American Stereology **April 2003**
7th International Society for Stereology & Image Analysis Conference
La Jolla, California

Optical Microscopy and Imaging in the Biomedical Sciences **July 2001**
Director: Dr. Colin S. Izzard
Marine Biological Laboratory, Woods Hole, Massachusetts

Cryo-Microscopy
Sponsor: Leica **Oct 2001**
Denver, Colorado

Professional Memberships and Activities

•American Society for Cell Biology (ASCB) **1991 - present**
•American Academy for the Advancement of Science (AAAS) **2012 - present**
•Association of Women in Science (AWIS) **2012 - present**
•International Society for Research in Human Milk & Lactation (ISRHML) **2022 - present**

Editorial Board Appointments

Journal of Mammary Gland Biology & Neoplasia **2023 – present**

Committee Assignments and Administrative Services

Ad hoc grant reviewer
NIH, NICDH, ICER study section **June 2025**
ISRHML training grants **Nov 2024**
NIH, DPPS, EMS, NMHD study section **Apr 2025**

Ad hoc manuscript reviewer
BioMolecules **2024**
Journal of Dairy Research **2018, 2022, 2024**
Reproduction and Breeding **2024**
Journal of Mammary Gland Biology & Neoplasia **2023, 2024**
Physiological Genomics **2023**
iScience **2023**
Nutrients **2019, 2020, 2022**
Maternal & Child Nutrition **2020**

Educational Activities

Graduate School teaching

"Mammary gland development, differentiation, and lactation" (lecture)
Integrated Physiology program Spring Repro Bio course (IPHY7800) **2021-2026**

Medical School teaching

"Breast Development & Physiology" (lecture) **Feb 2021**
Life Cycle Block **Nov 2021**
Jun 2022

"Fluorescence Microscopy Lab: Immunohistochemistry" (lecture and lab) **2013-2016**
Practical Application of Molecular and Cell Biology Techniques for the Clinical Investigator (CLSC 7500)

Mentoring

Postdoctoral Fellows

Jayne Martin Carli, PhD **2019-2025**
Assistant Professor, Division of Reproductive Sciences,
Department of Obstetrics & Gynecology, CU Anschutz School of Medicine, Aurora, CO.

Graduate Students

Evelyn Llerena-Cari, PhD, Integrated Physiology Program
awarded July 14, 2022 (committee member) **2018-2022**
Board of Directors of the Colorado Fertility Advocates
Vice President of Colorado Association of Reproductive Technologists
Embryologist at Denver Fertility Care, Denver, CO.

Karli Swenson, PhD, Integrated Physiology Program
awarded Sept. 18, 2023 (committee chair) **2019-2023**
Program assistant, Colorado Perinatal Care Quality Collaborative
Postdoctoral fellow at Children's Hospital Colorado, eXtraordinarY Kids Clinic.

Petra Dahms, PhD, Cancer Biology Program
awarded April 2, 2025 (committee member) **2023-2025**
Research Scientist with Vortex Biotechnology.

Lauren Cozzens, Cancer Biology Program
PhD expected 2026 (committee member) **2023-current**

Roxana Gutierrez, Cell Biology, Stem Cells, and Development Program (Advisor) **2026-present**

Kara Fusco, Integrated Physiology Program (Advisor) **2026-present**

Rotation Students

Kiarra Coger, Integrated Physiology Program **Spring 2026**
Mackenzie Amrine, Integrated Physiology Program **Fall 2026**

Undergraduate Students

Aneesha Panda **summer 2024**
Max Monks **summer 2024**

Honors and Awards

Florence Myers Goldhamer Fellowship in Pediatric Allergy & Immunology **2001**
National Jewish Medical Center

Dean's List **1990-1991**
Harvey Mudd College

National Merit Scholar **1987**
National Merit Scholarship Corporation

Grants and Contract Awards

Current

NIH 1R01HD117769-01 (Monks PI)
04/01/2025-03/31/2030
Project Title: Investigating the Role of Lipid Droplet Docking in Lactation Initiation and Milk Secretion
Goal: The goal of the project is to expand our understanding of the basic mechanisms controlling milk secretion.
Total Award Amount: $3,848,802
Total Direct Costs: $2,499,994
Total Indirect Costs $1,348,808

Pending

NIH 1R21HD119327-01 (Monks PI)
04/01/2026-03/30/2028
Project Title: Establishing Mammary Organoids to Study Milk Letdown Response in Myoepithelial Cells
Goal: To develop new organoid systems with functional myoepithelial cells, to serve as a model to study mechanisms and regulation of contraction in human mammary myoepithelial cells.
Role: PI
Percent Effort:15%
Total Award Amount: $ 422,067
Total Direct Costs: $ 275,000
Total Indirect Costs $ 147,067

Past Awarded

NIH R01 HD093729-01A1 (McManaman & Monks MPI)
09/01/2018 – 05/31/2023
No Cost Extension- 05/31/2024
Project Title: Molecular Determinants of Lactation Success
Goal: This project used novel transgenic mouse models to investigate the molecular mechanisms that regulate milk lipid secretion and lactation success.
Role: Co-PI
Percent Effort: 50%
Total Award Amount: $1,923,760
Total Direct Costs: $1,240,000
Total Indirect Costs: $683,760

NIH R21 HD096228 (Frank & Lanaspa MPI)
04/01/2019-03/31/2022
Project Title: Contributions of perinatal sugar exposure to childhood metabolic syndrome
Goal: To characterize the role of sugar and fructokinase on pregnancy and perinatal metabolic syndrome.
Role: Co-investigator
Percent Effort: 8%
Total Award Amount: $427,625
Total Direct Costs: $275,000
Total Indirect Costs: $152,625

Departmental Bridge Funding
Level of effort: 50%
Performance period: 07/01/2023-06/30/2024
Total Amount awarded: $67,000
Supporting Agency: Department of Obstetrics & Gynecology

Departmental Bridge Funding
Level of effort: 56%
Performance period: 07/01/2024-06/30/2025
Total Amount awarded: $50,000
Supporting Agency: Department of Obstetrics & Gynecology

CU-SOM Bridge Funding
Level of effort: no salary support
Performance period: 10/01/2023-09/30/2024
Total Amount awarded: $50,000
Supporting Agency: University of Colorado Anschutz School of Medicine

CU-SOM Across the Finish Line Grant
Level of effort: no salary support
Performance period: 07/01/2024-06/30/2025
Total Amount awarded: $50,000
Supporting Agency: University of Colorado Anschutz School of Medicine

NIH Gap Funding Program
Level of effort: 56%
Performance period: 04/15/2025-10/15/2025
Total Amount awarded: $55,000
Supporting Agency: Office of the Vice Chancellor for Health Affairs and
Dean, University of Colorado Anschutz School of Medicine

Scored/Not Funded
NIH 2R01HD093729-06A1 (Monks PI)
07/01/2024-06/30/2029
Project Title: Molecular Determinants of Lactation Success
Impact Score:30 Percentile:17

NIH 2R01HD093729-06 (McManaman & Monks MPI)
09/01/2023-08/31/2028
Project Title: Molecular Determinants of Lactation Success
Impact Score:39 Percentile:29

NIH 1R21HD119327-01 (Monks PI)
07/01/2025- 06/30/2027
Project Title: Establishing Mammary Organoids to Study Milk Letdown Response in Myoepithelial Cells
Impact Score:46 Percentile:40 +

Dept. of the Army – USAMRAA, Ovarian Cancer Research Program
Project Number: OC240276 - GRANT14223749
06/01/2025- 05/31/2027
Project Title: Elucidating the path of tumorigenesis through fallopian tube secretory epithelial cells

Publications (Citations: 2301, h-index: 23, i10-index: 26)

Peer-reviewed publications

1. Martin Carli JF, Dzieciatkowska M, Hernandez TL, **Monks J***, McManaman JL*. Comparative proteomic analysis of human milk fat globules and paired membranes and mouse milk fat globules identifies core cellular systems contributing to mammary lipid trafficking and secretion. *Front Mol Biosci.* 2023;10:1259047. doi: 10.3389/fmolb.2023.1259047. eCollection 2023. PubMed PMID: 38169886; PubMed Central PMCID: PMC10759240. *Contributed equally (8 Citations)
2. Fini MA, **Monks JA**, Li M, Gerasimovskaya E, Paucek P, Wang K, Frid MG, Pugliese SC, Bratton D, Yu YR, Irwin D, Karin M, Wright RM, Stenmark KR. Macrophage Xanthine Oxidoreductase Links LPS Induced Lung Inflammatory Injury to NLRP3 Inflammasome Expression and Mitochondrial Respiration. *bioRxiv.* 2023 Jul 21;. doi: 10.1101/2023.07.21.550055. PubMed PMID: 37502951; PubMed Central PMCID: PMC10370167. (6 Citations)
3. **Monks J**, Orlicky DJ, Libby AE, Dzieciatkowska M, Ladinsky MS, McManaman J. Perilipin-2 promotes lipid droplet-plasma membrane interactions that facilitate apocrine lipid secretion in secretory epithelial cells of the mouse mammary gland. *Frontiers in Cell and Developmental Biology-Membrane Traffic*. 2022.10:958566. doi: 10.3389/fcell.2022.958566. PMID: 36158190; PubMed Central PMCID: PMC9500548. (19 Citations)
4. Martin Carli JF, Trahan GD, Jones KL, Hirsch N, Rolloff KP, Dunn EZ, Friedman JE, Barbour LA, Hernandez TL, MacLean PS, **Monks J**, McManaman JL, Rudolph MC. Single Cell RNA Sequencing of Human Milk-Derived Cells Reveals Sub-Populations of Mammary Epithelial Cells with Molecular Signatures of Progenitor and Mature States: a Novel, Non-invasive Framework for Investigating Human Lactation Physiology. *J Mammary Gland Biol Neoplasia*. 2020 Dec;25(4):367-387. doi: 10.1007/s10911-020-09466-z. PubMed PMID: 33216249; PubMed Central PMCID: PMC8016415. (59 Citations)
5. **Monks J**, Ladinsky MS, McManaman JL. Organellar Contacts of Milk Lipid Droplets. Contact (Thousand Oaks). 2020 Jan-Dec;3. doi: 10.1177/2515256419897226. Epub 2020 Jan 23. PubMed PMID: 32232194; PubMed Central PMCID: PMC7105144. (34 Citations)
6. Orlicky DJ, Libby AE, Bales ES, McMahan RH, **Monks J**, La Rosa FG, McManaman JL. Perilipin-2 promotes obesity and progressive fatty liver disease in mice through mechanistically distinct hepatocyte and extra-hepatocyte actions. *J Physiol*. 2019 Mar;597(6):1565-1584. doi: 10.1113/JP277140. PubMed PMID: 30536914; PubMed Central PMCID: PMC6418763. (101 Citations)
7. Libby AE, Bales ES, **Monks J**, Orlicky DJ, McManaman JL. Perilipin-2 deletion promotes carbohydrate-mediated browning of white adipose tissue at ambient temperature. *J Lipid Res*. 2018 Aug;59(8):1482-1500. doi: 10.1194/jlr.M086249. PubMed PMID: 29866659; PubMed Central PMCID: PMC6071773. (38 Citations)
8. **Monks J**, Orlicky DJ, Stefanski AL, Libby AE, Bales ES, Rudolph MC, Johnson GC, Sherk VD, Jackman MR, Williamson K, Carlson NE, MacLean PS, McManaman JL. Maternal obesity during lactation may protect offspring from high fat diet-induced metabolic dysfunction. *Nutr Diabete*s. 2018 Apr 25;8(1):18. doi: 10.1038/s41387-018-0027-z. PubMed PMID: 29695710; PubMed Central PMCID: PMC5916951. (47 Citations)
9. Hazegh KE, Nemkov T, D'Alessandro A, Diller JD, **Monks J**, McManaman JL, Jones KL, Hansen KC, Reis T. An autonomous metabolic role for Spen. *PLoS Genet*. 2017 Jun;13(6):e1006859. doi: 10.1371/journal.pgen.1006859. eCollection 2017 Jun. PubMed PMID: 28640815; PubMed Central PMCID: PMC5501677. (24 Citations)
10. **Monks J**, Dzieciatkowska M, Bales ES, Orlicky DJ, Wright RM, McManaman JL. Xanthine oxidoreductase mediates membrane docking of milk-fat droplets but is not essential for apocrine lipid secretion. *J Physiol*. 2016 Oct 15;594(20):5899-5921. doi: 10.1113/JP272390. PubMed PMID: 27357166; PubMed Central PMCID: PMC5063925. (53 Citations)
11. Frank DN, Bales ES, **Monks J**, Jackman MJ, MacLean PS, Ir D, Robertson CE, Orlicky DJ, McManaman JL. Perilipin-2 Modulates Lipid Absorption and Microbiome Responses in the Mouse Intestine. *PLoS One*. 2015;10(7):e0131944. doi: 10.1371/journal.pone.0131944. PubMed PMID: 26147095; PubMed Central PMCID: PMC4493139. (53 Citations)
12. Neville MC, Webb P, Ramanathan P, Mannino MP, Pecorini C, **Monks J**, Anderson SM, MacLean P. The insulin receptor plays an important role in secretory differentiation in the mammary gland. *Am J*

Physiol Endocrinol Metab. 2013 Nov 1;305(9):E1103-14. doi: 10.1152/ajpendo.00337.2013. PubMed PMID: 23982156; PubMed Central PMCID: PMC3840206. (93 Citations)

13. Crunk AE, **Monks J**, Murakami A, Jackman M, Maclean PS, Ladinsky M, Bales ES, Cain S, Orlicky DJ, McManaman JL. Dynamic regulation of hepatic lipid droplet properties by diet. *PLoS One*. 2013;8(7):e67631. doi: 10.1371/journal.pone.0067631. Print 2013. PubMed PMID: 23874434; PubMed Central PMCID: PMC3708958. (93 Citations)
14. Orlicky DJ, **Monks J**, Stefanski AL, McManaman JL. Dynamics and molecular determinants of cytoplasmic lipid droplet clustering and dispersion. *PLoS One*. 2013;8(6):e66837. doi: 10.1371/journal.pone.0066837. PubMed PMID: 23825572; PubMed Central PMCID: PMC3692517. (49 Citations)
15. Fini MA, **Monks J**, Farabaugh SM, Wright RM. Contribution of xanthine oxidoreductase to mammary epithelial and breast cancer cell differentiation in part modulates inhibitor of differentiation-1. *Mol Cancer Res.* 2011 Sep;9(9):1242-54. doi: 10.1158/1541-7786.MCR-11-0176. PubMed PMID: 21775420; PubMed Central PMCID: PMC3175308. (41 Citations)
16. Rudolph MC, **Monks J**, Burns V, Phistry M, Marians R, Foote MR, Bauman DE, Anderson SM, Neville MC. Sterol regulatory element binding protein and dietary lipid regulation of fatty acid synthesis in the mammary epithelium. *Am J Physiol Endocrinol Metab*. 2010 Dec;299(6):E918-27. doi: 10.1152/ajpendo.00376.2010. PubMed PMID: 20739508; PubMed Central PMCID: PMC3006251. (130 Citations)
17. O'Brien J, Lyons T, **Monks J**, Lucia MS, Wilson RS, Hines L, Man YG, Borges V, Schedin P. Alternatively activated macrophages and collagen remodeling characterize the postpartum involuting mammary gland across species. *Am J Pathol*. 2010 Mar;176(3):1241-55. doi: 10.2353/ajpath.2010.090735. PubMed PMID: 20110414; PubMed Central PMCID: PMC2832146. (350 Citations)
18. **Monks J**, Henson PM. Differentiation of the mammary epithelial cell during involution: implications for breast cancer. *J Mammary Gland Biol Neoplasia*. 2009 Jun;14(2):159-70. doi: 10.1007/s10911-009-9121-0. Review. PubMed PMID: 19408104. (49 Citations)
19. **Monks J**, Smith-Steinhart C, Kruk ER, Fadok VA, Henson PM. Epithelial cells remove apoptotic epithelial cells during post-lactation involution of the mouse mammary gland. *Biol Reprod*. 2008 Apr;78(4):586-94. doi: 10.1095/biolreprod.107.065045. PubMed PMID: 18057312. (191 Citations)
20. **Monks J**. TGFbeta as a potential mediator of progesterone action in the mammary gland of pregnancy. *J Mammary Gland Biol Neoplasia*. 2007 Dec;12(4):249-57. doi: 10.1007/s10911-007-9056-2. Review. PubMed PMID: 18027075. (14 Citations)
21. **Monks J**, Rosner D, Geske FJ, Lehman L, Hanson L, Neville MC, Fadok VA. Epithelial cells as phagocytes: apoptotic epithelial cells are engulfed by mammary alveolar epithelial cells and repress inflammatory mediator release. *Cell Death Differ.* 2005 Feb;12(2):107-14. doi: 10.1038/sj.cdd.4401517. PubMed PMID: 15647754. (280 Citations)
22. **Monks J**, Neville MC. Albumin transcytosis across the epithelium of the lactating mouse mammary gland. *J Physiol*. 2004 Oct 1;560(Pt 1):267-80. doi: 10.1113/jphysiol.2004.068403. PubMed PMID: 15297572; PubMed Central PMCID: PMC1665199. (68 Citations)
23. Geske FJ, **Monks J**, Lehman L, Fadok VA. The role of the macrophage in apoptosis: hunter, gatherer, and regulator. *Int J Hematol*. 2002 Jul;76(1):16-26. doi: 10.1007/bf02982714. Review. PubMed PMID: 12138891. (87 Citations)
24. **Monks J**, Geske FJ, Lehman L, Fadok VA. Do inflammatory cells participate in mammary gland involution?. *J Mammary Gland Biol Neoplasia*. 2002 Apr;7(2):163-76. doi: 10.1023/a:1020351919634. Review. PubMed PMID: 12463737. (116 Citations)
25. **Monks J**, Huey PU, Hanson L, Eckel RH, Neville MC, Gavigan S. A lipoprotein-containing particle is transferred from the serum across the mammary epithelium into the milk of lactating mice. *J Lipid Res*. 2001 May;42(5):686-96. PubMed PMID: 11352975. (32 Citations)
26. **Monks J**, Neville MC. Vesicular transport of soluble substances into mouse milk. *Adv Exp Med Biol.* 2001;501:257-63. doi: 10.1007/978-1-4615-1371-1_32. Review. PubMed PMID: 11787689. (3 Citations)
27. Zhang P, Sawicki V, Lewis A, Hanson L, **Monks J**, Neville MC. The effect of serum iron concentration on iron secretion into mouse milk. *J Physiol*. 2000 Feb 1;522 Pt 3:479-91. doi: 10.1111/j.1469-7793.2000.t01-2-00479.x. PubMed PMID: 10713971; PubMed Central PMCID: PMC2271065. (22 Citations)

28. Neville MC, Medina D, **Monks J**, Hovey RC. The mammary fat pad. *J Mammary Gland Biol Neoplasia.* 1998 Apr;3(2):109-16. doi: 10.1023/a:1018786604818. Review. PubMed PMID: 10819521. (186 Citations)
29. Neville MC, Chatfield K, Hansen L, Lewis A, **Monks J**, Nuijens J, Ollivier-Bousquet M, Schanbacher F, Sawicki V, Zhang P. Lactoferrin secretion into mouse milk. Development of secretory activity, the localization of lactoferrin in the secretory pathway, and interactions of lactoferrin with milk iron. *Adv Exp Med Biol*. 1998;443:141-53. Review. PubMed PMID: 9781353. (32 Citations)

Encyclopedia Entries:

1. **Monks J**, Mather IH. Mammary Gland, Milk Biosynthesis and Secretion: Secretion of Milk Constituents. In: McSweeney PL, McNamara JP, editors. Encyclopedia of Dairy Sciences [Internet] 3 ed. Academic Press: Elsevier; 2022. 206–213p. Available from: https://dx.doi.org/10.1016/B978-0-12-818766-1.00011-8.
2. Neville MC, **Monks J.** The Cell Biology of the Lactating Mammary Epithelium, in M. K. Skinner (Ed.), Encyclopedia of Reproduction. vol. 2. [Internet]. Academic Press: Elsevier; 2018 January. pp. 779–785. Available from: https://doi.org/10.1016/B978-0-12-801238-3.64419-7. DOI: 10.1016/B978-0-12-801238-3.64419-7.

Published Abstracts and Presentations

Oral Presentations

National/International Meetings (Invited)

1. **Monks J.** 2023. Nutrients and Metabolism in Normal and Cancer. Section Leader at Gordon Research Conference on Mammary Gland Biology: Molecules and Mechanisms From Normal Biology to Cancer. West Dover, VT.
2. **Monks J,** Martin Carli J. 2022. Insulin, Diabetes and Breastfeeding. Phoenix Epidemiology and Clinical Research Branch (PECRB). NIH, virtual seminar.
3. **Monks J.** 2019. Breastfeeding in the 21st century: Modern Resources and Challenges. American Gynecological Club. Denver, CO
4. **Monks J**, McManaman J. 2017. Cell Biology of Lactation: Docking and Stimulated Secretion of Milk Fat Globules. Invited speaker at the Gordon Research Conference on Mammary Gland Biology: Understudied Areas in Mammary Gland Biology and Breast Cancer. Stowe, VT.
5. **Monks J**, Henson P, Fadok VA. 2003. Clearance of Apoptotic Cells in the Involuting Mammary Gland, Invited speaker at the Gordon Research Conference on Clearance of Apoptotic Cells by Phagocytes: Mechanisms and Consequences. New London, CT.
6. **Monks J**, Fadok VA. 2002. Clearance of Apoptotic Cells in the Involuting Mammary Gland, Invited speaker at the 10th Euroconference on Apoptosis, Pasteur Institute, Paris.

Local/Regional Meetings (Invited)

1. **Monks J.** 2024. Investigating the Role of Lipid Droplet Docking in Lactation Initiation and Milk Secretion. Department of Obstetrics & Gynecology Research Retreat
2. **Monks J.** 2023. Human Milk Research & Biotechnology. Invited speaker at the Rocky Mountain Children's Health Foundation Healthy Baby Summit. Denver, CO.
3. **Monks J**. 2021. Mammary development and lactation (virtual presentation) WiSTEM group. University of Colorado Anschutz, Aurora, CO
4. **Monks J**. 2020. Understanding Lactation Insufficiency at the Cellular Level. Division of Reproductive Sciences Seminar. University of Colorado School of Medicine. Denver, CO
5. **Monks J**. 2019. Developing pre-clinical models to study how maternal obesity impairs lactation. Perinatal Research Center Seminar. University of Colorado Anschutz Medical Center, Denver, CO

Poster Presentations

National/International Meetings

1. Fusco K, MacLean P, McManaman JL, Martin Carli JF, **Monks J.** 2026. Developing pre-clinical models to study how maternal obesity impairs lactation. 4th Annual Kohlberg Johnson Family Human Milk Institute (HMI) Symposium, HMI'26, San Diego, CA

2. Orlicky DJ, Elliott E, Madi L, Llerena Cari E, Danhorn T, Goodspeed A, Johnson J, Martin Carli JF, Mather IH, McManaman JL, **Monks J.** 2026. Disrupting Milk Fat Globule Secretion Delays Secretory Activation. 4th Annual Kohlberg Johnson Family Human Milk Institute (HMI) Symposium, HMI'26, San Diego, CA
3. Orlicky DJ, Elliot E, Madi L, Llerena Cari E, Goodspeed AE, Danhorn T, Johnson J, Martin Carli J, Mather IH, McManaman JL, **Monks J**. 2023. Disruption of Milk Fat Globule Docking Reveals Mammary Adaptation Postpartum. Gordon Research Conference on Mammary Gland Biology: Molecules and Mechanisms From Normal Biology to Cancer. West Dover, VT.
4. Elliot E, Martin Carli J, Johnson J, Orlicky DJ, McManaman JL, **Monks J**, 2022. Lactogenesis requires cross-talk between the milk secretory cells and contractile, myoepithelial cells in the mammary gland. Society for Reproductive Investigation. Denver, CO.
5. **Monks J**, Martin Carli JF, Bales ES, Orlicky DJ, Mather IH, McManaman JL. 2019. Docking of Milk Fat Globules at the Apical Plasma Membrane Prior to Secretion. Gordon Research Conference: Heterogeneity in Mammary Gland Development and Breast Cancer. Newry, ME.
6. **Monks J**, Bales ES, Orlicky DJ, McManaman JL. 2019. Letdown Controls Lactation Success: Stimulated Secretion of Milk Fat Globules. Gordon Research Conference on Salivary Glands and Exocrine Biology, Galveston, TX.
7. **Monks J**, Dzieciatkowska M, Bales E, Libby AE, Orlicky DJ, McManaman JL. 2018. Perilipin 2 (ADRP/ADPH) dissociates cytoplasmic lipid droplets from the endoplasmic reticulum during milk fat secretion, International Milk Genomics Consortium Symposium in Sacramento, CA.
8. **Monks J**, Martin Carli J, Libby AE, Bales ES, Orlicky DJ, Mather IH, McManaman JL. 2017. Docking of Milk Fat Globules at the Apical Plasma Membrane Prior to Secretion, Gordon Research Conference on Mammary Gland Biology, Stowe, VT.
9. **Monks J**. Dzieciatkowska M, Bales ES, Orlicky DJ, Wright RM, McManaman JL. 2016. Xanthine Oxidoreductase mediates membrane docking of the lipid droplet during milk fat globule secretion. FASEB Lipid Droplets: Dynamic Organelles in Metabolism and Beyond.
10. Orlicky DL, Stefanski A, Chong B, **Monks J**, Monks C, McManaman JL. 2011. Perilipin, Moesin and Microtubule Dependence of Lipid Droplet Clustering and Dispersion. American Society for Cell Biology (ASCB) Annual Meeting.
11. **Monks J**, Henson P, Neville M. 2007. The Clearance Phase of Mammary Involution. Gordon Research Conference on Mammary Gland Biology, Newport, RI.
12. **Monks J**, Fadok VA. 2003. Clearance of Apoptotic Cells in the Involuting Mammary Gland. Gordon Research Conference on Mammary Gland Biology, Bristol, RI.
13. **Monks J**, Rosner D, Neville MC, Hanson L, Fadok VA. 2001. Clearance of Apoptotic Cells During Mammary Involution is Mediated by Mammary Epithelial Cells as well as by Macrophages. Keystone Symposium on Molecular Mechanisms of Apoptosis. Keystone, CO.
14. **Monks J**, Fadok VA. 2001. Clearance of Apoptotic Cells During Mammary Involution. Gordon Research Conference on Mammary Gland Biology, Bristol, RI.
15. **Monks J**, Neville MC. 1998. Elucidating albumin transcytosis across the mammary epithelium of the lactating mouse. Intracellular Transports in Mammary Epithelial Cells. INRA, Jouy-en-Josas, France.
16. **Monks J**, Neville MC. 1997. Transport of Extra-Alveolar Proteins into Mouse Milk. Gordon Research Conference on Mammary Gland Biology. Plymouth, NH.
17. **Monks J**, Gavigan S, Neville MC. 1996. LDL is transported whole, as is Albumin, across the Lactating Mammary Epithelium. Gordon Research Conference on Lipid Metabolism. Meriden, NH.
18. **Monks J**, Neville MC. 1995. LPL Transport in the Lactating Mammary Gland. Gordon Research Conference on Mammary Gland Biology. New London, NH.

Local/Regional Meetings

1. **Monks J**, Martin Carli JF, Bales ES, Orlicky DJ, McManaman JL. 2019. Mouse models of diet-induced-obesity have defective mammary gland development during pregnancy. Rocky Mountain Reproductive Sciences Symposium, Fort Collins, CO.
2. **Monks J**, Bales ES, Libby AE, Orlicky DJ, McManaman JL. 2018. Cell Biology of Lactation: Membrane Docking and Stimulated Secretion of Milk Fat Globules. Rocky Mountain Membrane Trafficking Meeting.

3. **Monks J**, Orlicky DJ, Libby AE, Bales ES, Rudolph MC, Johnson GC, Sherk VD, Jackman MR, MacLean PS, McManaman JL. 2017. Developmental Programming by Mother's Milk. Building Better Babies Symposium, Univ. Colo. Anschutz.
4. **Monks J**, Bales ES, Libby AE, Orlicky DJ, McManaman JL. 2016. Let-down Controls Lactation Success: Stimulated Secretion of Milk Fat Globules. Women's Health Research Day, Univ. Colo. Anschutz.
5. **Monks J**, Bales ES, Rudolph M, Johnson G, Jackman M, Orlicky DL, MacLean P, McManaman JL. 2015. Maternal Effects on the Neonate: Nursing is a susceptibility window for programming adverse health outcomes. Division of Reproductive Sciences Research Retreat, Univ. Colo. Anschutz.
6. **Monks J**, Bales ES, Cain S, Stevens S, Schaack J, Orlicky DJ, Wright RM, McManaman JL. 2014. Loss of Xanthine Oxidoreductase Impairs Milk Fat Globule Secretion. Women's Health Research Day, Univ. Colo. Anschutz.

Other Scholarly Contributions

Proteomic Data Sets:

Computational Mass Spectrometry (CCMS), Mass Spectrometry Interactive Virtual Environment (MassIVE)

1) Proteomic Analysis of Paired Human Milk Fat Globules and Milk Fat Globule Membranes: MSV000092892 **2023**

2) Proteomic Analysis of Mouse Milk Fat Globules: MSV000092915 **2023**

Genomic Data Sets:

NCBI Gene Expression Omnibus

1) Single Cell RNA Sequencing of Human Milk-Derived Cells: GSE153889 **2020**

Analysis Tools:

1) MyoNet: A novel deep learning AI 3D U-net for segmentation and scoring of myoepithelial cells in intact mammary alveoli (coming soon!)

Other Creative Products

Birthing, Bonding & Breastfeeding: educational poster

Monks J and Christy Jo Hendricks, Available at https://www.birthingandbreastfeeding.com/ **2021**

Service

University Activities

Department of Obstetrics & Gynecology Grant Mentorship Committee **2025-present**

•A committee of OB-GYN faculty meets monthly with junior faculty for intensive mentoring to complete a major grant submission within 1 year.

Graduate Training and Oversight Committee, Integrated Physiology Graduate Program **2024-present**

•Each GTOC member is aligned with first or second-year students who they reach out to a few times a year to meet and discuss how they are doing. This committee also reviews applications for the T32 training grant.

Program Project Grant Internal Advisory Board- 1P01CA310983 *Breast Cancer Co-opts Reversible Physiologic Programs of Immune Suppression*; Traci Lyons, PhD, lead PI **2025-present**

• Quarterly review of productivity, integration, accomplishments of the aims, scientific guidance

Division of Reproductive Sciences Seminar Administrator search committee **2025**

•Interviewed and identified candidates for the position of Business Services Professional.

Division of Reproductive Sciences Seminar Series Organizer **2022-2024**
•Coordinated weekly speakers, both internal and invited, assisted with scheduling meetings with trainees and faculty, and hosted dinners.

Division of Reproductive Sciences Journal Club Organizer **2019-2020**
•Coordinated and coached trainees for a monthly journal club presentation to the division.

Community Activities

Scientific Advisor **2018-present**
Advisory Council of the Mothers' Milk Bank
Rocky Mountain Children's Health Foundation
•Council meets quarterly to discuss the workings of the milk bank, new regulations and policies. I voluntarily report on the current science of breastmilk and lactation and provide specific science in the form of written reports, publications, or presentations to the board, when asked to do so.