Jessica E. Thaxton, PhD, MsCR
Associate Professor
Department of Cell Biology & Physiology
Joint Faculty, Microbiology & Immunology
Program Leader, Cancer Cell Biology
Lineberger Comprehensive Cancer Center
University of North Carolina at Chapel Hill

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Expertise

Cancer immunologist studying how cellular stress, metabolism, and organelle biology shape immune dysfunction in cancer. Her research defines a cell biological framework for understanding how stressors across the tumor microenvironment alter immune cell function through changes in stress signaling, metabolic state, and organelle architecture. Her laboratory integrates tumor immunology, endoplasmic reticulum/ integrated stress response biology, immunometabolism, and cell biology to uncover fundamental mechanisms of immune dysfunction and identify novel translational strategies for cancer immunotherapy.

Education & Training

NCI/NIH Paul Calabresi K12 Clinical Oncology Fellowship	2016-2018
Master of Clinical Research, Medical University of South Carolina	2014-2015
Department of Defense Breast Cancer Research Program Post-Doctoral Fellowship	2012-2015
NIH Ruth Kirschstein Fellowship	2011-2012
Doctor of Philosophy (Immunology), Brown University	2009
Bachelor of Arts, Amherst College	2001

Leadership & Academic Appointments

Chair, Awards Review Committee Society for Immunotherapy of Cancer	2026-PRES
Director & Creator, Cancer Grants Studio Junior Faculty Grant Development Program University of North Carolina, Chapel Hill, NC	2025-PRES
Joint Faculty, Department of Microbiology & Immunology University of North Carolina, Chapel Hill, NC	2025-PRES
Co-Chair, Awards Review Committee Society for Immunotherapy of Cancer	2024-2026
Co-Leader, Cancer Cell Biology Program, Lineberger Comprehensive Cancer Center University of North Carolina, Chapel Hill, NC	2024-PRES
Co-Chair, Translational Immune Oncology Study Section National Cancer Institute, USA	2024-PRES
Standing Member, Translational Immune Oncology Study Section National Cancer Institute, USA	2024-PRES

Associate Professor, Department of Cell Biology & Physiology 2022-PRES
University of North Carolina, Chapel Hill, NC

Assistant Professor, Medical University of South Carolina, Charleston, SC 2017-2021
Departments of Orthopedics, Microbiology & Immunology

Post-doctoral Fellow, Medical University of South Carolina, Charleston, SC 2012-2016
Department of Microbiology & Immunology

Post-doctoral Fellow, Oregon Health & Sciences University, Portland, OR 2010-2012
Department of Microbiology & Immunology

Graduate Student, Brown University, Providence, RI 2004-2009
Department of Microbiology & Immunology

Selected Honors & Awards

2026	Mathers Foundation Research Award
2025	Paper of the Year Award, UNC-Chapel Hill
2025	Forbeck Foundation Faculty, Immunometabolism in Cancer Therapy, Mexico
2025	V Foundation Adult Translational Research Award
2023	Developmental Funds Award, UNC-Chapel Hill
2022	Paper of the Year Award, UNC-Chapel Hill
2020	Foundation for Research Development Award, Medical University of South Carolina
2018	Sparkathon Team Winner, Society for Immunotherapy of Cancer
2018	Selected to Sparkathon, Society for Immunotherapy of Cancer
2017	Selected to Immuno-oncology Young Investigators' Forum, Texas
2017	Dean's Nominee, AAMC Young Female Faculty Leadership Series
2017	Harper Drolet Award for Excellence in Sarcoma Research
2017	Young Investigator Award, Society for Immunotherapy of Cancer
2016	NIH/NCI Paul Calabresi Clinical Oncology Fellowship
2013	ESMO Postdoctoral Travel Award, Belgium
2012	Department of Defense Breast Cancer Research Fellowship Award
2011	Early Clinical Investigator Award, Oregon Health & Science University
2010	NIH Ruth Kirschstein NRSA Fellowship, Oregon Health & Science University
2009	SRI Graduate Travel Award, PA
2008	ASRI Graduate Travel Award, IL
2008	ASRI Outstanding New Investigator Award
2007	ISRI Graduate Travel Award, Brazil
2007	Environmental Toxicology Award, Brown University
2006	1st Place Research Retreat Presentation, Brown University

Scientific Publications

1. Zimmerman MP, Zhabotynsky V, Wang H, Cox EK, Chong WL, Bastian AG, Kennedy AS, Fay BP, Reynolds AG, Morrill AE, Meier JA, Vietor K, Taylor KE, Onuoha PC, Maruvada S, Hurst KE, Wong C, Anderson CW, Thomas NE, Liu R, Bryant KL, Baldwin AS, Ollila DW, Ting JPY, Rushing BR, Sumner SJ, Krupenko SA, Hugo W, Moschos SJ, **Thaxton JE**, Miller BC. Folate metabolism in tumor-associated macrophages drives immunosuppressive function to promote tumor growth. https://www.biorxiv.org/content/10.64898/2026.09.29.755523v1. *Under review, Cell Press, Multi-Journal.*

2. Sánchez Ortiz K, Chatterjee P, Dion W, Pannikkat D, Kutseikin S, Basso T, Sun J, Mathur P, Dikiy S, Saez E **Thaxton JE**, Wiseman RL, Mendoza A. Pharmacologic IRE1 Activation Rewires Cholesterol

Metabolism to Suppress T_H17 Differentiation. https://www.biorxiv.org/content/10.64898/2026.11.12.765150v1. *Under review, Nature Chem Biology.*

3. Chatterjee P, Sánchez Ortiz K, Dikiy S, Bollong MJ, **Thaxton JE**, Mendoza A, Wiseman RL. Metabolically Activated Proteostasis Regulators Reduce Differentiation of $CD4^+$ TH17 Cells. https://www.biorxiv.org/content/10.64898/2026.09.02.747634v1.full.pdf. *Accepted, eLife*

4. Glenny E, Coleman M, Clutton GT, Riesenberg BP, Ho A, McFarlane T, Kiesel V, Zeng J, Wang Y, Malian H, Gates C, Chen F, Xu R, Holt CA, Paules E, Kazak L, Pollak M, **Thaxton JE**, Hursting ST. Tirzepatide remodels tumor immunity to limit obesity-induced cancer progression. https://www.biorxiv.org/content/10.1101/2024.01.20.576484v2.full. *In revision, Cell Reports Medicine*.

5. Pratt BM, Mullins GN, Brown N, Green WD, Modliszewski J, Xie F, Van Rooyen L, Zhabotynsky V, Jambor AN, Cannon G, Green JM, Kennedy AS, Shi H, Merritt E, Egawa T, Somasundaram A, Wang W, **Thaxton JE**, Dotti G, Chung HK, Milner JJ. Latent Regulatory Programs Generate Synthetic T Cell States with Enhanced Therapeutic Potential. https://www.biorxiv.org/content/10.64898/2026.01.07.698190v1.full. *In revision*, *Nature*.

6. Kennedy AS, Clutton GT, Hunt EG, Hem JW, Alicea Pauneto CDM, Riesenberg BP, Green JM, Hurst KE, Hagle RS, Sheft LS, Zhou X, Esther RJ, Knochelmann HM, Paulos CM, Neskey D, Cubillos-Ruiz J, Savoldo B, Dotti G, Earp HS, Trivedi S, Liu Y, Green WD, Milner JJ, Genereux JC, Salmon WC, Wiseman RL, **Thaxton JE**. Tumor Stress Rewires Endoplasmic Reticulum Architecture to Enforce T Cell Dysfunction. Pre-*accepted, Immunity.* 2026

7. Walhart T, Song F, Biondi M, Stucchi S, Li G, Peishun P, Suzuki K, Hunt EG, Kennedy AS, **Thaxton JE**, Withers T, Hunsucker S, Tsahouridis R, Serafini M, Flick L, Lichtman EI, Woodcock M, Su L, Yang Z, Xiong G, Cui Z, Wang P, Liu C, Savoldo B, Armistead P, Dotti G. High-avidity Cathepsin-G specific CAR-T cells for the treatment of Acute Myeloid Leukemia. *Blood*. 2026

8. Chung HK, Liu C, Jambor AN, Riesenberg BP, Sun M, Casillas E, Chick B, Wang A, Wang J, Ma S, Mcdonald B, He P, Yang Q, Chen T, Varanasi SK, LaPorte M, Mann TH, Chen D, Hoffmann F, Tripple V, Ho J, Modliszewski J, Williams A, Cho UH, Liu L, Wang Y, Hargreaves DC, **Thaxton JE**, Milner JJ, Kaech SM, Wang W. Atlas-Guided Discovery of Transcription Factors for T Cell Programming. bioRxiv. 2025 Jan 4; doi: 10.1101/2023.01.03.522354. PubMed PMID: 36711632; PubMed Central PMCID: PMC9881845. *Nature*. 2026

9. Alicea Pauneto CDM, Riesenberg BP, Gandy EJ, Kennedy AS, Clutton GT, Hem JW, Hurst KE, Hunt EG, Green JM, Miller BC, Angus SP, Johnson GP, Esther RJ, Gao P, Soto-Pantoja DR, Ferris RL, Modliszewski JL, Coleman MF, Chung HK, Milner JJ, Moschos SJ, Wiseman RL, **Thaxton JE**. Intra-tumoral hypoxia promotes $CD8^+$ T cell dysfunction via chronic activation of the integrated stress response transcription factor ATF4. Oct 14;58(10):2489-2504.e8 doi: 10.1016/j.immuni.2025.09.003. *Immunity.* 2025

10. Green WD, Gomez A, Plotkin AL, Pratt BM, Merritt EF, Mullins GN, Kren NP, Modliszewski JL, Zhabotynsky V, Woodcock MG, Green JM, Cannon G, Pipkin ME, Dotti G, **Thaxton JE**, Pylayeva-Gupta Y, Baldwin AS, Morris IV JP, Stanley N, Milner JJ. Enhancer-driven regulatory networks reveal transcription factors governing $CD8^+$ T cell differentiation and adaptation in the tumor microenvironment, May 22:S1074-7613(25)00193-1. *Immunity*. 2025

11. Hunt EG, Hurst KE, Riesenberg BP, Kennedy AS, Gandy EJ, Andrews AM, Alicea Pauneto CDM, Ball LE, Wallace ED, Gao P, Meier J, Serody JJ, Coleman MF, **Thaxton JE**. Acetyl-CoA Carboxylase Obstructs $CD8^+$ T-Cell Lipid Utilization in the Tumor Microenvironment. Mar 11:S1550-4131(24)00055-X. doi: 10.1016/j.cmet.2024.02.009. *Cell Metabolism*. 2024

12. Rangel Rivera GO, Dwyer CJ, Knochelmann HM, Smith AS, Aksoy BA, Cole AC, Wyatt MM, Kumaresan S, **Thaxton JE,** Lesinski GB, Paulos CM. Progressively enhancing stemness of adoptively transferred T cells with PI3Kδ blockade improves metabolism and anti-tumor immunity. Jan 2;84(1):69-83. *Cancer Research*. 2024

13. Riesenberg BP, Hunt EG, Andrews AM, Hurst KE, Tennant MD, Leddy LR, Neskey DM, Hill EG, Gao P, Ball LE, **Thaxton JE**. Stress-mediated translation attenuation undermines T cell tumor control. Dec 2;82(23):4386-4399. doi: 10.1158/0008-5472.CAN-22-1744. PMID: 36126165. *Cancer Research*. 2022

14. Hunt EG, Andrews AM, Larsen S, **Thaxton JE**. The ER-mitochondria Interface as a Dynamic Hub for T Cell Efficacy in Solid Tumors. Apr 27; 10:867341. doi:1 0.3389/fcell.2022.867341. PMID: 35573704. *Frontiers in Cell and Developmental Biology*. 2022

15. Smith AS, Knockelmann HM, Wyatt MM, Dwyer CJ, Rangel Rivera GO, Rivera Reyes AM, **Thaxton JE**, Bartee EC, Rubinstein MP, Liu B, Paulos CM. B cells imprint adoptively transferred $CD8^+$ T cells with enhanced tumor immunity. Jan;10(1):e003078. doi: 10.1136/jitc-2021-003078.PMID: 35017148. *Journal of Immunotherapy of Cancer*. 2022

16. Mehta A, Cheney EM, Hartl C, Pantelidou C, Oliwa M, Castrillon JA, Lin J-R, Hurst, KE, Taveira M, Johnson NT, Oldham WM, Kalocsay M, Berberich MJ, Boswell SA, Kothari A, Johnson S, Dillon DA, Lipschitz M, Rodig S, Santagata S, Garber JE, Tung N, **Thaxton JE**, Mittendorf EA, Sorger PK, Shapiro GI, Guerriero JL. Targeting immunosuppressive macrophages overcomes PARP inhibitor resistance in BRAC1-associated triple-negative breast cancer. Dec; 2, 66-82. *Nature Cancer*. 2021

17. Wallace K, El Nahas GJ, Bookhout C, **Thaxton JE**, Lewin DN, Nikolaishvili-Feinberg N, Cohen SM, Brazeal JG, Hill EG, Wu JD, Baron JA, Alekseyenko AV. Immune responses vary in preinvasive colorectal lesions by tumor location and histology. cancer. Sep;14(9):885-892. doi: 10.1158/1940-6207.CAPR-20-0592. PMID: 34341013. *Cancer Prevention Research*. 2021

18. Rangel Rivera GO, Smith AS, Knockelmann HM, Wyatt MM, Dwyer CJ, Rivera Reyes AM, **Thaxton JE**, Paulos CM. Fundamentals of T cell metabolism and strategies to enhance cancer immunotherapy. Mar 18;12:645242. doi: 10.3389/fimmu.2021.645242. PMID: 33815400. *Frontiers in Immunology*. 2021

19. Thomas U. Marron, MD, PhD, Aideen E. Ryan, PhD, Sangeetha M. Reddy, MD, Msci, Sabina Kaczanowska, PhD, Rania H. Younis, BDS, MDS, PhD, Dipti Thakkar, PhD, Jiajia Zhang, MD, MPH, Todd Bartkowiak, PhD, Rachel Howard, PhD, Kristin G. Anderson, PhD, Daniel Olson, MD, Abdul Rafeh Naqash, MD, Ravi B. Patel, MD, PhD, Esha Sachdev, MD, María Esperanza Rodríguez-Ruiz, MD, PhD, Michal Sheffer, PhD, Sarah E. Church, PhD[18], Christopher Fuhrman, PhD[18], Abigail Overacre-Delgoffe, PhD[19], Rosa Nguyen, MD, PhD[13], Vaia Florou, MD, **Jessica E. Thaxton, PhD**, David H. Aggen, MD, PhD and Jennifer L. Guerriero, PhD. Considerations for treatment duration in responders to immune checkpoint immunotherapy. Mar;9(3):e001901. PMID: 33653801. *Journal of Immunotherapy of Cancer*. 2021

20. Andrews AM, Tennant MD, **Thaxton JE**. Stress relief for cancer immunotherapy: Implications for the ER stress response in tumor immunity. Oct 26; doi: 10.1007/s00262-020-02740-3. PMID: 33104836. *Cancer Immunology and Immunotherapy*. 2020

21. Halbert CH, Jefferson MS, Danielson C, Froeliger B, Giordano A, **Thaxton JE**. An observational study and randomized trial of stress reactivity in cancer disparities. Sep;39(9):745-757. doi: 10.1037/hea0000882. PubMed PMID: 32833476. *Health Psychology*. 2020

22. Dwyer CJ, Arhontoulis DC, Rangel Rivera GO, Knochelmann HM, Smith AS, Wyatt MM, Rubinstein MP, Atkinson C, **Thaxton JE**, Neskey DM, Paulos CM. Ex vivo blockade of PI3K gamma or delta signaling

enhances the antitumor potency of adoptively transferred CD8$^+$ T cells. May 8;. doi: 10.1002/eji.201948455. PubMed PMID: 32383488. *European Journal of Immunology*. 2020

23. Hurst KE, Lawrence KA, Robino RA, Ball LE, Chung D, **Thaxton JE**. Remodeling Translation Primes CD8$^+$ T-cell Antitumor Immunity. May;8(5):587-595. doi: 10.1158/2326-6066.CIR-19-0516. Epub 2020 Feb 19. PubMed PMID: 32075802. *Cancer Immunology Research*, *Priority Brief*. 2020

24. Hurst KE, Lawrence KA, Reyes Angeles L, Ye Z, Zhang J, Townsend DM, Dolloff N, **Thaxton JE**. Endoplasmic Reticulum Protein Disulfide Isomerase Shapes T Cell Efficacy for Adoptive Cellular Therapy of Tumors. Nov 26;8(12). doi: 10.3390/cells8121514. PubMed PMID: 31779147; PubMed Central PMCID: PMC6953024. *Cells*. 2019

25. Hurst KE, Lawrence KA, Essman MT, Walton ZJ, Leddy LR, **Thaxton JE**. Endoplasmic Reticulum Stress Contributes to Mitochondrial Exhaustion of CD8$^+$ T Cells. Mar;7(3):476-486. doi: 10.1158/2326-6066.CIR-18-0182. Epub 2019 Jan 18. PubMed PMID: 30659052; PubMed Central PMCID: PMC6397687. *Cancer Immunology Research*. 2019

26. **Thaxton JE**, Wallace C, Riesenberg B, Zhang Y, Paulos CM, Beeson CC, Liu B, Li Z. Modulation of Endoplasmic Reticulum Stress Controls CD4$^+$ T-cell Activation and Antitumor Function. Aug;5(8):666-675. doi: 10.1158/2326-6066.CIR-17-0081. Epub 2017 Jun 22. PubMed PMID: 28642246; PubMed Central PMCID: PMC5585019. *Cancer Immunology Research*. 2017

27. Ansa-Addo EA, **Thaxton JE**, Hong F, Wu BX, Zhang Y, Fugle CW, Metelli A, Riesenberg B, Williams K, Gewirth DT, Chiosis G, Liu B, Li Z. Clients and Oncogenic Roles of Molecular Chaperone gp96/grp94. 16(25):2765-78. doi: 10.2174/1568026616666160413141613. Review. PubMed PMID: 27072698; PubMed Central PMCID: PMC5041304. *Current Topics in Medicinal Chemistry*. 2016

28. Zhang Y, Wu BX, Metelli A, **Thaxton JE**, Hong F, Rachidi S, Ansa-Addo E, Sun S, Vasu C, Yang Y, Liu B, Li Z. GP96 is a GARP chaperone and controls regulatory T cell functions. Feb;125(2):859-69. doi: 10.1172/JCI79014. Epub 2015 Jan 20. PubMed PMID: 25607841; PubMed Central PMCID: PMC4319419. *Journal of Clinical Investigation*. 2015

29. **Thaxton JE**, Liu B, Zheng P, Liu Y, Li Z. Deletion of CD24 impairs development of heat shock protein gp96-driven autoimmune disease through expansion of myeloid-derived suppressor cells. Jun 15;192(12):5679-86. doi: 10.4049/jimmunol.1302755. Epub 2014 May 7. PubMed PMID: 24808359; PubMed Central PMCID: PMC4185284. *Journal of Immunology*. 2014

30. **Thaxton JE**, Li Z. To affinity and beyond: harnessing the T cell receptor for cancer immunotherapy. 10(11):3313-21. doi: 10.4161/21645515.2014.973314. Review. PubMed PMID: 25483644; PubMed Central PMCID: PMC4514023. *Human Vaccine and Immunotherapeutics*. 2014

31. **Thaxton JE**, Nevers T, Lippe EO, Blois SM, Saito S, Sharma S. NKG2D blockade inhibits poly(I:C)-triggered fetal loss in wild type but not in IL-10-/- mice. Apr 1;190(7):3639-47. doi: 10.4049/jimmunol.1203488. Epub 2013 Mar 1. PubMed PMID: 23455498; PubMed Central PMCID: PMC3608719. *Journal of Immunology*. 2013

32. **Thaxton JE**, Nevers TA, Sharma S. *TLR-mediated preterm birth in response to pathogenic agents.* doi: 10.1155/2010/378472. Epub 2010 Aug 23. Review. PubMed PMID: 20827416; PubMed Central PMCID: PMC2933901. *Infect Dis Obstet Gynecol.* 2010

33. **Thaxton JE**, Sharma S. Interleukin-10: a multi-faceted agent of pregnancy. Jun;63(6):482-91. doi: 10.1111/j.1600-0897.2010.00810.x. Epub 2010 Feb 16. Review. PubMed PMID: 20163400; PubMed Central PMCID: PMC3628686. *American Journal of Reproductive Immunology*. 2010

34. **Thaxton JE**, Romero R, Sharma S. TLR9 activation coupled to IL-10 deficiency induces adverse pregnancy outcomes. Jul 15;183(2):1144-54. doi: 10.4049/jimmunol.0900788. PubMed PMID: 19561095; PubMed Central PMCID: PMC2785500. *Journal of Immunology*. 2009

35. Walters S, Webster KE, Sutherland A, Gardam S, Groom J, Liuwantara D, Mariño E, **Thaxton J**, Weinberg A, Mackay F, Brink R, Sprent J, Grey ST. Increased CD4+Foxp3+ T cells in BAFF-transgenic mice suppress T cell effector responses. Jan 15;182(2):793-801. doi: 10.4049/jimmunol.182.2.793. PubMed PMID: 19124722. *Journal of Immunology*. 2009

Research Funding Portfolio

Active Grants:

MF-2601-11979, Mathers Foundation 09/01/2026 – 08/31/2029
ER Architecture as a Determinant of T Cell Metabolism in Cancer
Role: PI

R01CA310022A, NIH/NCI 04/01/2026 – 03/31/2031
Regulation of Immunometabolism by the Integrated Stress Response in Cancer
Role: PI

R01CA288976A1, NIH/NCI 12/01/2024-11/30/2029
Manipulating Lipid Metabolism to Reverse Immune Dysfunction in Cancer
Role: PI

R01CA305975A1, NIH/NCI 07/06/2026 – 06/30/2031
Mechanisms of ATF4-Macrophage Dysfunction in Cancer
Role: MPI (Thaxton/ Guerriero)

V Foundation, Scott Hamilton CARES Foundation, Adult Translational Grant 07/15/2025 – 07/14/2029
The Cellular Response to Stress as A Mechanism of ICI Resistance in Cancer
Role: PI

SPORE, NIH/NCI 09/01/2026-08/31/2031
Yale-UNC HNSCC SPORE
MPI: Ferris, Burtness
Role: Co-I, Project 2

R61CA309698-01, NIH/NCI 04/01/2026 – 03/31/2029
Multiplexed multiscale imaging for cellular immunotherapies
PI: Legant
Role: Co-I

R37 CA269499-01, NIH/NCI 04/01/2022-03/31/2027
Immunometabolic Pathways Enabled by PARP Inhibition in Breast Cancer
PI: Guerriero
Role: Co-I

5-P30-CA016086-43 06/01/1997 - 11/30/2027
Cancer Center Support Grant
PI: Ferris
Role: Program Co-Leader

R01 Not Assigned-A1-01, NIH/NCI 07/01/2026 – 06/30/2031
ADCK3 and MAP3K4 as repressors of CAR-T cell stemness

PI: Dotti
Role: Co-I

Completed Grants:

Biomedical Engineering Innovation Funding Award 07/01/2025 - 06/30/2026
AI Assisted Dynamic Imaging for Cellular Immunotherapies
PI: Legant
Role: Co-I

R01CA244361-01A1, NIH/NCI 07/01/2020-06/30/2025
Targeting Chronic ER Stress in T Cells to Improve Immunotherapy
Role: Principal Investigator

3R01CA244361-05S1, NIH/NCI 07/01/2023-06/30/2025
ATF4 As a Driver of T Cell Inefficacy in Tumors
Role: Principal Investigator, Supplement

R01 CA248359-01, NIH/NCI 04/01/2020-03/31/2025
Cancer Moonshot Initiative on Immunometabolism
Exploitation of ER Stress Induced Immune Dysfunction to Improve Immunotherapy
Role: Principal Investigator

LCCC Tier 2 Innovation Award 01/01/23 – 12/31/24
Remodeling Th/Tc17 CAR-T Cell Biology to Enhance Efficacy in Solid Cancers
Role: Co-Principal Investigator

R01CA226086-01A1, NIH/NCI 04/19/2019 - 03/31/2024
The Immune Contexture of Colorectal Adenomas and Serrated Polyps
PI: Wallace
Role: Co-Investigator

MUSC Foundation for Research Development 01/01/2020-05/31/2021
Development of ER Stress Inhibitors to augment cancer immunotherapy
Role: Principal Investigator

TEVA Pharmaceuticals 11/01/2019-10/31/2020
Combination Therapy with Omacetaxine for Treatment of Solid Tumors
Role: Principal Investigator

South Carolina Stress & Anti-Oxidants NIH COBRE Pilot 07/01/2019-08/31/2020
Targeting ERO1a to Restore CD8 TIL Proteostasis
Role: Project Leader

Hollings Cancer Center Clinical Concept Award 04/01/2019-03/31/2020
Combination Therapy with Omacetaxine for Treatment of Solid Tumors
Role: Principal Investigator

NIH/NCI K12 Paul Calabresi Clinical Oncology Fellowship 01/01/2016-12/31/2018
Targeting ER Stress for Cancer Immunotherapy
Role: Trainee

American Cancer Society Institutional Research Grant, Renewal 01/01/2017-12/31/2017
Lone Survivor: Stressful Role of the ER in $CD8^+$ T cell metabolism
Role: Project Leader

American Cancer Society Institutional Research Grant — 01/01/2016-12/31/2016
Lone Survivor: Stressful Role of the ER in $CD8^+$ T cell metabolism
Role: Project Leader

Department of Defense Breast Cancer Research Post-Doctoral Fellowship — 06/01/2012-05/31/2015
Chemotherapy necessitates increased immune control of chronic HHVs
Role: Principal Investigator

Early Clinical Investigator Award, Oregon Health & Sciences University — 01/01/2011-12/31/2011
Chemotherapy necessitates increased immune control of chronic HHVs
Role: Principal Investigator

Select National & International Presentations

2027 Invited Speaker, Feinberg School of Medicine, Northwestern University, Chicago, IL
2026 Invited Keynote Speaker, C-BIO, Valencia, Spain
2026 Visiting Professor, Georgetown-Lombardi Comprehensive Cancer Center, Washington, DC
2026 Invited Speaker, FASEB Organelle Crosstalk Conference, Melbourne, FL
2026 Invited Speaker, Eastern Cooperative Oncology Group-ACRIN, Philadelphia, PA
2026 Invited Speaker, Institute for Molecular Medicine & Biomedical Research, Athens, Greece
2026 Flash Talk, Multifaceted Mitochondria: Cell Press Symposium, Glasgow, Scotland
2026 Invited Speaker, Advancements in Cancer Research and Treatments, Boston, MA
2026 Invited Speaker, Center for Cell Signaling, Rutgers New Jersey Medical School, Newark, NJ
2025 Invited Speaker, Sanford Burnham Prebys, La Jolla, CA
2025 Invited Speaker, Immunometabolism for Cancer Therapy, Forbeck Forum, Mexico City, Mexico
2025 Invited Speaker, FASEB Endoplasmic Reticulum Conference, Melbourne, FL
2024 Invited Speaker, American Society for Hematology Oncology, San Diego, CA
2024 Invited Keynote Speaker, Japanese Society of Immunology, Nagasaki, Japan
2024 Invited Speaker, Wake Forest Baptist Comprehensive Cancer Center, Wake Forest, NC
2024 Winship Elkin Lecturer, Emory University, Atlanta, GA
2024 Invited Speaker, SITC Scientific, Immunometabolism in Cancer Therapy, Miami, FL
2023 Invited Speaker, Agilent Technologies
2023 Invited Speaker, Cancer Drug Discovery, Boston, MA
2023 Invited Speaker, Sanford Burnham Prebys, La Jolla, CA
2022 Invited Speaker, Dana Farber Cancer Center, Boston, MA
2021 Invited Speaker, Lineberger Comprehensive Cancer Center, Chapel Hill, NC
2020 Invited Speaker, Tisch Brain Tumor Center, Duke University, Durham, NC
2020 Invited Speaker, New Mexico Comprehensive Cancer Center, Albuquerque, NM
2018 Invited Speaker, Society for Immunotherapy of Cancer, National Meeting
2018 Invited Speaker, Immune Oncology Young Investigator's Forum, Houston, TX
2018 Invited Speaker, LOWVELO, Hollings Cancer Center Daniel Island, SC

Teaching Activities

2026-2027 Co-Director CBPH706, Dept of Cell Biology & Physiology, UNC Chapel Hill
2025-2026 Co-Director CBPH706, Dept of Cell Biology & Physiology, UNC Chapel Hill
2025-2026 Lecturer, MCRO 731, Dept Microbiology & Immunology, UNC Chapel Hill
2025-2026 Lecturer, CBP853, Dept of Cell Biology & Physiology, UNC Chapel Hill
2024-2025 Co-Director CBPH853, Dept of Cell Biology & Physiology, UNC Chapel Hill
2023-2024 Co-Director CBPH853, Dept of Cell Biology & Physiology, UNC Chapel Hill
2023-2024 Lecturer, MCRO 730, Dept Microbiology & Immunology, UNC Chapel Hill
2022-2023 Co-Director CBPH853, Dept of Cell Biology & Physiology, UNC Chapel Hill
2018-2021 Co-Director, Graduate Introduction to Immunology, MUSC

2016-2020 Lecturer, Basic Orthopedic Science for Clinicians, Department of Orthopedics, MUSC
2016-2021 Lecturer, Translation: Bench to Bedside, Master of Clinical Research, MUSC
2015-2018 Lecturer, Advanced Immunology, Graduate School, MUSC
2007-2009 Teaching Assistant, Introduction to Immunology, School of Medicine, Brown University
2005-2009 Teaching Certificates I, II, III, Sheridan Center for Teaching and Learning, Brown University

Current Primary Mentee Graduate Students

2026-PRES	Lindsay Sheft	Metabolic Regulation of Macrophage Dysfunction in Cancer
2026-PRES	Ryan Hagle	Endoplasmic Reticulum-Directed Origins of CAR-T Cell Metabolism in Cancer
2025-PRES	Jessie Hem	Cell Stress-Mediated Control of Lipid Metabolism in Tumor Immunity

Current Primary and Secondary Mentee Postdoctoral Fellows & Junior Faculty

2026-PRES Primary Mentor, Bre Hewitt, PhD	Postdoctoral Fellow, UNC Chapel Hill
2026-PRES Primary Mentor, Ayush Rana, PhD	Postdoctoral Fellow, UNC Chapel Hill
2024-PRES Primary Mentor, Sumita Trivedi, MD	K12 Oncology Fellow, UNC Chapel Hill
2023-PRES Secondary Mentor, Brian Miller, MD, PhD	Melanoma Research Foundation Award
2023-PRES Secondary Mentor, Jeremy Meier, MD, PhD	America Society of Hematology Award
2025-PRES CBP Mentor Committee, H. Kay Chung, PhD	Assistant Professor, CBP

Mentee Awards

2026	Jessie Hem	Integrated Translational Oncology Program Grant Award
2025	Samuel Junod, PhD	SPIRE Postdoctoral Fellowship Grant Award
2025	Sumita Trivedi , MD	Robert Winn Career Development Grant Award
2025	Jessie Hem	Integrated Translational Oncology Program Grant Award
2025	Andrew Kennedy	Graduate Fellow in Basic Science Award
2024	Andrew Kennedy	Lineberger Comprehensive Cancer Center Travel Award
2024	Coral del Mar Alicea Pauneto	Pharmacology Scholars Award
2024	Annaleigh Powell-Benton, PhD	SPIRE Postdoctoral Fellowship Grant Award
2023	Coral del Mar Alicea Pauneto	NIH/NCI Supplemental Grant Award
2023	Elizabeth Hunt	SITC Abstract Award
2022	Elizabeth Hunt	SITC Young Investigator Award
2021	Brian Riesenberg, PhD	Immunology Research and Entrepreneurship Grant Award
2020	Alex Andrews, PhD	Integrative Training in Oncogenic Signaling Grant Award

Current Graduate Student Committees

2026-PRES Committee Member, Jonah Parish (Baker Lab)
2026-PRES External Expert, Cray Minor (Tharpe Lab), Sanford Burnham Prebys
2024-PRES Committee Chair, Amber Gomez (Milner Lab)
2022-PRES Committee Chair, Matthew Zimmerman (Miller Lab)
2026-PRES Committee Member, Andrew Ulmer (Legant Lab)
2025-PRES Committee Member, Annalee Schmidt (R. Dowen Lab)
2025-PRES Committee Member, Michelle LaBella, MD (Yeh Lab)
2023-PRES Committee Member, Amanda Linke (Perou Lab)
2022-PRES Committee Member, Shelley Pan (Serody Lab)

Service

Service to discipline:

2026-PRES	Ad Hoc Reviewer, Molecular Cancer
2026-PRES	Ad Hoc Reviewer, Molecular Cell
2026-PRES	Ad Hoc Reviewer, Developmental Cell
2025-PRES	Ad Hoc Reviewer, Cell Reports Medicine
2024-PRES	Ad Hoc Reviewer, Cell Metabolism
2023-PRES	Ad Hoc Reviewer, Nature Communications

2023-PRES	Ad Hoc Reviewer, Nature Reviews
2021-PRES	Ad Hoc Reviewer, Cell Reports
2024	Ad Hoc Reviewer, Molecular & Cellular Immunology
2021	Ad Hoc Reviewer, Frontiers in Immunology
2021	Ad Hoc Reviewer, eLife
2021	Ad Hoc Reviewer, Cellular and Molecular Life Sciences

FY26 VICI	Dutch Research Council
FY26 AIRC	Italian Foundation for Cancer Research
FY24-PRES	NCI/NIH, Co-Chair, Translational Immune Oncology Study Section
FY24-PRES	NCI/NIH, Standing Member, Translational Immune Oncology Study Section
FY23 NCI/NIH	Ad Hoc, Translational Immune Oncology Study Section
FY22 NCI/NIH	P50 SPORE Study Section
FY22 NCI/NIH	Oncological Science F09C Fellowship Study Section
FY21 DOD	Ovarian Cancer Research Program
FY20 DOD	Peer Reviewed Cancer Research Program
FY20 DOD	Ovarian Cancer Research Program

2026-2028	Chair, Society for Immunotherapy of Cancer, Awards Review Committee
2024-2026	Co-Chair, Society for Immunotherapy of Cancer, Awards Review Committee
2021-2022	Society for Immunotherapy of Cancer, Membership Committee
2020	Co-Chair, Rapid Oral Sessions, Society for Immunotherapy of Cancer, National Meeting
2020	Chair, Meet the Expert Events, Society for Immunotherapy of Cancer, National Meeting
2019	Session Leader and Moderator, Society for Immunotherapy of Cancer, National Meeting
2018-2021	Society for Immunotherapy of Cancer, Early Career Scientist Committee
2015-PRES	Society for Immunotherapy of Cancer, Member
2015-PRES	American Association of Cancer Research

Service to institution:

2026-PRES	Creator & Director, Cancer Grant Studio: Building Fundable Research Programs Lineberger Comprehensive Cancer Center
2026-PRES	Member, Department of Microbiology & Immunology Preliminary Exam Committee
2026-PRES	Member, Department of Cell Biology & Physiology Preliminary Exam Committee
2025-2026	Faculty Director, UNC Metabolomics and Proteomics Core
2025-PRES	Member, UNC Metabolomics and Proteomics Core Internal Advisory Board
2024-PRES	Member, Lineberger Comprehensive Cancer Center Graduate Awards Committee
2024-PRES	Co-Investigator, Head and Neck Cancer SPORE Development
2024-PRES	Project Leader, Bladder Cancer SPORE Development
2024-PRES	Member, Metabolomics and Proteomics Core Faculty Search Committee
2023-PRES	Leader, Lineberger Comprehensive Cancer Center Cancer Cell Biology Program
2023-PRES	Member, Lineberger Comprehensive Cancer Center Faculty Search Committee
2023-PRES	Member, Lineberger Comprehensive Cancer Center Developmental Awards
2023-PRES	Member, Department of Cell Biology & Physiology Executive Committee
2026	Member, Packard Fellowship Internal Selection Committee
2024	Faculty Advisor, UNC Metabolomics and Proteomics Core
2024	Member, Metabolomics and Proteomics Core Staff Search Committee
2022-2025	Member, Biological & Biomedical Sciences Program Admission Committee
2022-2024	Development, UNC Metabolomics and Proteomics Core