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Education

6/2018 – 6/2022	Fellow, Medical Oncology, ABIM Research Pathway, University of Wisconsin, Madison
6/2016 – 6/2018	Internal Medicine Resident, ABIM Research Pathway, University of Wisconsin, Madison
6/2008 – 6/2016	University of Chicago Medical Scientist Training Program **Ph.D.** in Cancer Biology, March 2014; Advisor: Kay Macleod, PhD. Dissertation committee: Ernst Lengyel, MD, PhD (Chair), Geoffrey Greene, PhD, and Suzanne Conzen, MD. **M.D.,** June 2016
6/2002 – 12/2006	University of California Berkeley. **B.A.** in Molecular and Cellular Biology, with Honors. **B.A.** in German, with Highest Honors. Highest distinction in general scholarship (summa cum laude).

Medical Licensure

Wisconsin State Medical License: #68098 - 20

Board Certification

2019-2029	Internal Medicine, American Board of Internal Medicine
2022-2032	Medical Oncology, American Board of Internal Medicine

Positions Held

8/2022 – present	Assistant Professor, Department of Medicine, Division of Hematology, Medical Oncology and Palliative Care, University of Wisconsin, Madison, WI.

Honors and Awards

2024	Junior Faculty Research Award, Division of Hematology, Medical Oncology and Palliative Care, University of Wisconsin, Madison
2023	Elizabeth Silverman Teaching Award, University of Wisconsin Hematology/ Oncology Fellowship
2023	Department of Defense Prostate Cancer Research Program Physician Research Award
2022	Prostate Cancer Foundation Young Investigator Award
2022	Fellow Research Award, Department of Medicine, University of Wisconsin, Madison.
2021	Selected participant, AACR Molecular Biology in Clinical Oncology workshop
2021	Doris Duke Charitable Foundation Physician Scientist Fellowship (Awarded to 11 subspecialty fellows in the US)
2020	Training in Cancer Biology T32 Training Grant, University of Wisconsin, Madison
2020	Wisconsin Association of Hematology/Oncology Fellow Award
2016	Leon O. Jacobsen Basic Science Prize for basic science research, Pritzker School of Medicine Senior Scientific Session
2014	American Association of Cancer Research (AACR) Scholar-in-Training Award

2014	Dissertation Award, University of Chicago Committee on Cancer Biology.
2012 – 2013	Elaine Ehrman Fellowship Award, University of Chicago Cancer Center Research Foundation.
2007	Spencer W. Brown Award for distinction in undergraduate genetics research, Department of Molecular and Cellular Biology, UC Berkeley.

Research Support

Active:

2025-2028 Department of Defense Prostate Cancer Research Program Data Science Award (PI: Sharifi, Zhao)
Grant: Multi-Omic Analysis of Liquid Biopsies for Biomarker Discovery and Therapeutic Targeting
Amount: $777,501.00
Role: co-PI

2025-2028 Department of Defense Prostate Cancer Research Program Idea Development Award (PI: Lang)
Grant: Integrated liquid biopsy analyses to identify and validate combinatorial treatment strategies for metastatic prostate cancer
Amount: $1,832,700
Role: co-I

2025-2027 Wisconsin Partnership Program New Investigator Program Award (PI: Spector)
Grant: Epigenetic signatures of cell-free DNA in kidney transplant rejection
Amount: $150,000
Role: Co-I

2024-2029 NIH 1R01CA288851 (PI: Hu)
Grant: Improving the platelet-mediated immune checkpoint inhibitor delivery for treating triple-negative breast cancer
Amount: $3,826,815
Role: Co-I

2024-2027 Wisconsin Partnership Program Collaborative Health Sciences Program Award (PI: Lang)
Grant: A pan-cancer AI-driven cell-free DNA sequencing platform for reducing disparities in early diagnosis, molecular characterization, and surveillance of multiple cancer types
Amount: $600,000
Role: Co-I

2024-2026 Wisconsin Partnership Program New Investigator Program Award (PI: Sharifi)
Grant: Liquid biopsy biomarkers of targeted therapy resistance in metastatic ER+ breast cancer
Amount: $150,000
Role: PI

2024-2026 NIH R01EB035992 (PI: Hu)
Grant: Engineering ferritin degrader-encapsulated platelets for post-surgical TNBC treatment
Amount: $2,229,664
Role: Co-I

2023-2027 Department of Defense Prostate Cancer Research Program Physician Research Award (PI: Sharifi)
Grant: Interrogating the Intersection of PSMA and PI3K Pathway Signaling as a Novel Treatment Approach in Treatment-Resistant Prostate Cancer
Amount: $1,166,252
Role: PI

2023-2026 Mary Kay Ash Foundation Translational Research Award (PI: Sharifi)
Grant: Identifying molecular drivers of PI3K inhibitor resistance in metastatic breast cancer via liquid biopsy
Amount: $100,000
Role: PI

2023-2026 Society of Nuclear Medicine and Molecular Imaging/Lobular Breast Cancer Alliance Invasive Lobular Carcinoma Imaging Fellowship (PI: Sharifi)
Grant: Integrating minimally invasive biomarkers of estrogen signaling to detect endocrine therapy resistance in metastatic invasive lobular cancer.
Amount: $100,000
Role: PI

2023-2025 UW Madison Prostate Cancer SPORE Career Enhancement Program (PI: Sharifi)
Grant: Interrogating the molecular signatures of Aggressive Variant Prostate Cancer via longitudinal liquid biopsy
Amount: $100,000
Role: PI

2022-2025 Prostate Cancer Foundation Young Investigator Award (PI: Sharifi)
Grant: Elucidating molecular correlates of PSMA expression in prostate cancer liquid biopsies to identify biomarkers of response and resistance to PSMA-targeted therapies.
Amount: $225,000
Role: PI

Completed:

2021-2023 Doris Duke Physician Scientist Fellowship
Grant: Multiplex liquid biopsy as a novel biomarker for PI3K inhibitor therapies
Total Direct Costs: $200,000
Total Indirect Costs: $20,000
Role: PI

2021-2022 University of Wisconsin Department of Medicine Trainee Pilot Award
Grant: Identifying patient-specific mechanisms of PI3K inhibitor resistance in advanced breast cancer via comprehensive liquid biopsy
Total Direct Costs: $9,730
Role: PI

2020-2021 NIH T32 Postdoctoral Training Award
Training in Cancer Biology
PI: William Sugden, PhD
Role: Trainee

2008-2016 NIH T32 Predoctoral Training Award
University of Chicago Medical Scientist Training Program
PI: Marcus Clark, MD
Role: Trainee (5 years of support)

Clinical Trials:

Investigator Initiated Clinical Trials:

Source: Big Ten Cancer Research Consortium
Title: Alpelisib (BYL719) in Combination with Continued Endocrine Therapy Following Progression on Endocrine Therapy in Hormone Receptor Positive, HER2 Negative, PIK3CA Mutant Metastatic Breast Cancer
Years: 2021-present
PI: Marina N. Sharifi, MD, PhD
Effort: 1%
Role: PI

Current Clinical Trials:

Source: Stemline Therapeutics
Title: Phase 1b/2, Open-Label Umbrella Study to Evaluate Safety and Efficacy of Elacestrant in Various Combinations in Patients with Metastatic Breast Cancer
Years: 2023-present
PI: Marina N. Sharifi, MD, PhD
Effort: 1%
Role: Site Principal Investigator (UWCCC)

* Clinical Trials as sub-Investigator: 65

Completed Clinical Trials

Source: Criterium
Title: Phase IB/II Clinical Trial of Alpelisib and Tucatinib in Patients With PIK3CA-Mutant HER2-Positive Metastatic Breast Cancer
Years: 2023-present
PI: Marina N. Sharifi, MD, PhD
Effort: 1%
Role: Site Principal Investigator (UWCCC)

Source: NCI
Title: A Phase I/II Trial Evaluating the Safety and Efficacy of Eribulin in Combination with Copanlisib in Patients with Metastatic Triple Negative Breast Cancer
Years: 2023-2024
PI: Marina N. Sharifi, MD, PhD
Effort: 1%
Role: Site Principal Investigator (UWCCC**)**

Publications

Peer-reviewed articles:

1. Kauffman ZJ*, Koesser K*, Helzer KT, **Sharifi MN**, Heninger E, Li C, Juang DS, Jarrard DF, Zhao SG, Haffner MC, Beebe DF, Lang JM, Sperger JM. Lossless Altered Histone Modification Analysis System (LAHMAS). *Contributed equally. Lab Chip. 2025 Jul 7. doi: 10.1039/d5lc00060b. Online ahead of print. PMID: 40620045.
2. Sánchez-de-Diego C, Yada RC, Sethakorn N, Geiger PG, Ding A, Heninger E, Ahmed F, Virumbrales-Muñoz M, Lupsa N, Bartels E, Stewart K, Ponic SM, **Sharifi MN**, Lang JM, Beebe DJ, Kerr SC. Engineering the bone metastatic prostate cancer niche: a microphysiological system to report patient-

specific treatment response. Commun Biol. 2025 Jul 1;8(1):961. doi: 10.1038/s42003-025-08384-2. PMID: 40596459.

3. **Sharifi MN**, Heninger E, Bootsma ML, Recchia EE, Breneman MT, Taylor AK, Zhao SG, LeBeau AM, Kosoff D. Transcriptomic signatures of monocyte-derived macrophages associate with androgen receptor pathway inhibitor progression in prostate cancer. Prostate. 2025 Jul 2. doi: 10.1002/pros.70000. Online ahead of print. PMID: 40605246.
4. Feng E, Feng E, Berg T, Nguyen IS, Nguyen LG, Chen W, Zhang M, Quigley D, **Sharifi M**, Li H, Coleman I, Nelson PS, Sjöström M, Zhao SG. Identifying prognostic targets in metastatic prostate cancer beyond AR. FEBS Open Bio. 2025 May 22. doi: 10.1002/2211-5463.70059. Epub ahead of print. PMID: 40405591.
5. **Sharifi MN***, Sperger JM*, Taylor AK, Tippins KR, Reese SR, Carreno V, Kaufmann KR, Chang AH, Nunamaker LA, Linebarger C, Mora-Rodriguez L, Schehr J, Krause HM, Helzer KT, Bootsma ML, Blitzer GC, Floberg J, Kyriakopoulos CE, Emamekhoo E, Heath EI, Wells M, Tagawa ST, Sjöström M, Choudhury AD, Yu Menggang, Armstrong AJ, Rathkopf DE, Beltran H, Nelson PS, Feng FY, Dehm SM, Kosoff D, Wei XX, McKay RR, Zhao SG †, Lang JM †.High-purity CTC RNA sequencing identifies prostate cancer lineage phenotypes prognostic for clinical outcomes. *†Contributed equally. Cancer Discovery. 2025 Feb 6. doi: 10.1158/2159-8290.CD-24-1509. Epub ahead of print. PMID: 39912912.
6. **Sharifi MN,** Feng E, Rydzewski N, Taylor AK, Sperger JM, Shi Y, Helzer KT, Bootsma M, Carreno V, Chang AC, Nunamaker L, Blitzer G, Shang TA, Subramanian A, Bjartell A, Josefsson A, Wilkstrom P, Feng E, Kohli M, Yang R, Dehm SM, Small EJ, Aggarwal R, Quidley DA, Lang JM, Zhao SG, Sjöström M. Adverse Prognosis Gene Expression Patterns in Metastatic Castration-Resistant Prostate Cancer. Molecular Oncology. 2025 Feb 22. doi: 10.1002/1878-0261.70001. Epub ahead of print. PMID: 39985777.
7. Young KS, Hancock GR, Fink E, Zigrossi A, Flowers B, Cooper DA, Nguyen VT, Martinez M, Mon KS, Bosland M, Zak D, Runde A, **Sharifi MN**, Kastrati I, Minh DDL, Kregel S, Fanning SW. Targeting Unique Ligand Binding Domain Structural Features Downregulates DKK1 in Y537S ESR1 Mutant Breast Cancer Cells. Breast Cancer Research. 2025 Jan 17;27(1):10. doi: 10.1186/s13058-024-01945-z. PMID: 39825366; PMCID: PMC11742495.
8. Miyahira AK, **Sharifi M**, Chesner LN, El-Kenawi A, Haas R, Sena LA, Tewari AK, Pienta KJ, Soule HR. Personalized Medicine: Leave no Patient Behind; Report From the 2024 Coffey-Holden Prostate Cancer Academy Meeting. Prostate. 2025 Feb;85(3):211-226. doi: 10.1002/pros.24826. Epub 2024 Nov 27. PMID: 39604057
9. Heninger E, Breneman MT, Recchia EE, Kerr SC, Dogru RE, **Sharifi MN**, LeBeau AM, Kosoff D. Dynamic reciprocal interactions between activated T cells and tumor associated macrophages drive macrophage reprogramming and proinflammatory T cell migration within prostate tumor models. Sci Rep. 2024 Oct 16;14(1):24230. doi: 10.1038/s41598-024-75265-9. PMID: 39414902
10. Bakhtiar H*, **Sharifi MN***, Helzer KT, Shi Y, Bootsma ML, Shang TA, Chrostek M, Berg T, Callahan SC, Carreno V, Blitzer GC, West MT, O'Regan, RM, Wisinski KB, Sjöström M, Zhao SG. A Phenocopy Signature of TP53 Loss Predicts Response to Chemotherapy. NPJ Precision Oncology, NPJ Precis Oncol. 2024 Oct 2;8(1):220. doi: 10.1038/s41698-024-00722-7. PMID: 39358429. *Contributed equally.
11. **Sharifi MN*,** Shi Y*, Chrostek M, Callahan SC, Shang T, Berg T, Helzer KT, Bootsma M, Sjöstrom M, Josefsson A, Feng FY, Huffman L, Schulte C, Blitzer G, Sodji Q, Morris Z, Ma VT, Meimetis L, Kosoff D, Taylor A, LeBeau AM, Lang JM, Zhao SG. Clinical Cell Surface Targets in Metastatic and Primary Solid Cancers. JCI Insight. 2024 Sep 24;9(18):e183674. doi: 10.1172/jci.insight.183674. PMID: 39315546; PMCID: PMC11457844. *Contributed equally.
12. Rydzewski NR, Shi Y, Li C, Chrostek MR, Bakhtiar H, Helzer KT, Bootsma ML, Berg TJ, Harari PM, Floberg JM, Blitzer GC, Kosoff D, Taylor AK, **Sharifi MN**, Yu M, Lang JM, Patel KR, Citrin DE, Sundling KE, Zhao SG. A platform-independent AI tumor lineage and site (ATLAS) classifier. Commun Biol. 2024 Mar 13;7(1):314. doi: 10.1038/s42003-024-05981-5. PMID: 38480799.
13. Helzer KT*, **Sharifi MN*,** Sperger JM*, Shi Y, Annala M, Bootsma ML, Reese SR, Taylor A, Kaufmann KR, Krause HK, Schehr JL, Sethakorn N, Kosoff D, Kyriakopoulos C, Burkard ME, Rydzewski NR, Yu M, Harari PM, Bassetti M, Blitzer G, Floberg J, Sjöström M, Quigley DA, Dehm SM, Armstrong AJ, Beltran H, McKay RR, Feng FY, O'Regan R, Wisinski KB, Emamekhoo H, Wyatt AW, Lang JM†, Zhao SG†. Fragmentomic analysis of circulating tumor DNA-targeted cancer

panels. Ann Oncol. 2023 Jun 16:S0923-7534(23)00724-X. doi: 10.1016/j.annonc.2023.06.001. PMID: 37330052 *†Contributed equally

14. **Sharifi MN**, O'Regan RM, Wisinski KB. Is the Androgen Receptor a Viable Target in Triple Negative Breast Cancer in 5 Years? Clin Breast Cancer. 2023 Jun 20: S1526-8209(23)00166-0. doi: 10.1016/j.clbc.2023.06.009. PMID: 37419745
15. Zhao SG*, Sperger JM*, Schehr JL, McKay RR, Emamekhoo H, Singh A, Schultz ZD, Bade RM, Stahlfeld CN, Gilsdorf CS, Hernandez CI, Wolfe SK, Mayberry RD, Krause HM, Bootsma M, Helzer KT, Rydzewski N, Bakhtiar H, Shi Y, Blitzer G, Kyriakopoulos CE, Kosoff D, Wei XX, Floberg J, Sethakorn N, **Sharifi M**, Harari PM, Huang W, Beltran H, Choueiri TK, Scher HI, Rathkopf DE, Halabi S, Armstrong AJ, Beebe DJ, Yu M, Sundling KE, Taplin ME, Lang JM*. A clinical-grade liquid biomarker detects neuroendocrine differentiation in prostate cancer. J Clin Invest. 2022 Nov 1;132(21):e161858. doi: 10.1172/JCI161858. PMID: 36317634 *Contributed equally
16. Bakhtiar H*, Helzer KT*, Park Y, Chen Y, Rydzewski NR, Bootsma ML, Shi Y, Harari PM, **Sharifi M**, Sjöström M, Lang JM, Yu M, Zhao SG. Identification of phenocopies improves prediction of targeted therapy response over DNA mutations alone. NPJ Genom Med. 2022 Oct 17;7(1):58. doi: 10.1038/s41525-022-00328-7. PMID: 36253482 *Contributed equally
17. Bootsma M*, McKay RR*, Emamekhoo H*, Bade RM, Schehr JL, Mannino, MC, Singh A, Wolfe SK, Schultz ZD, Sperger J, Xie W, Signoretti S, Kyriakopoulos CE, Kosoff D, Abel EJ, Helzer KT, Rydzewski N, Bakhtiar H, Shi Y, Blitzer G, Bassetti M, Floberg J, Yu M, Sethakorn N, **Sharifi MN**, Harari PM, Choueiri TK†, Lang JM†, Zhao SG†. Longitudinal molecular profiling of circulating tumor cells in metastatic renal cell carcinoma. J Clin Oncol. 2022 May 26:JCO2200219. Online ahead of print. PMID: 35617646. *†Contributed equally
18. Kalra M, Henry E, McCann K, Karuturi MS, Bustamante Alvarez JG, Parkes A, Wesolowski R, Wei M, Mougalian SS, Durm G, Qin A, Schonewolf C, Trivedi M, Armaghani AJ, Wilson FH, Iams WT, Turk AA, Vikas P, Cecchini M, Lubner S, Pathak P, Spencer K, Koshkin VS, Labriola MK, Marshall CH, Beckermann KE; theMednet.org NCI-CCC Tumor Board Program Collaborative Group, **Sharifi MN**, Bejjani AC, Hotchandani V, Housri S, Housri N. Making National Cancer Institute-Designated Comprehensive Cancer Center Knowledge Accessible to Community Oncologists via an Online Tumor Board: Longitudinal Observational Study. JMIR Cancer. 2022 May 19;8(2):e33859. PMID: 35588361.
19. Leal TA***, Sharifi MN**,* Chan, N, Wesolowski, R, Turk, AA, Bruce, JY, O'Regan, RM, Eickhoff, J, Barroilhet LM, Malhotra J, Mehnert J, Girda E, Wiley E, Schmitz N, Andrews S, Liu G and Wisinski KB. A Phase I Study of Talazoparib (BMN 673) in Combination with Carboplatin and Paclitaxel in Patients with Advanced Solid Tumors (NCI9782). Cancer Medicine, 2022 Apr 8. doi: 10.1002/cam4.4724. Online ahead of print. PMID: 35396812. *Contributed equally
20. **Sharifi M,** Wisinski KB. Advances in the Treatment of Early-Stage HER2-Positive Breast Cancer. Clin Adv Hematol Oncol. 2020 Aug;18(8):482-492. PMID: 32903247
21. Anandan A, **Sharifi M,** O'Regan R. Molecular Assays to Determine Optimal Duration of Adjuvant Endocrine Therapy in Breast Cancer. Curr Treat Options Oncol. 2020 Aug 15;21(10):84. PMID: 32803324
22. **Sharifi MN,** Anandan A, Grogan P, O'Regan RM. Therapy after CDK inhibition in metastatic hormone receptor-positive breast cancer: resistance mechanisms and novel treatment strategies. Cancer. 2020 Aug 1;126(15):3400-3416. PMID: 32426848
23. Mowers EE, **Sharifi MN**, Macleod KF. Functions of autophagy in the tumor microenvironment and cancer metastasis. FEBS J. 2018 May;285(10):1751-1766. PMID: 29356327
24. Mowers EE, **Sharifi MN**, Macleod KF. Autophagy in cancer metastasis. Oncogene. 2017 Mar 23;36(12):1619-1630. PMID: 27593926
25. **Sharifi MN**, Mowers EE, Macleod KF. Autophagic degradation of focal adhesions underlies metastatic cancer dissemination. Molecular and Cellular Oncology. 2016 Jun 10;4(2):e1198299. PMID: 28401177
26. Mowers EE, **Sharifi MN**, Macleod KF. Novel insights into how autophagy regulates tumor cell motility. Autophagy. 2016 Sep;12(9):1679-80. PMID: 27439889.
27. **Sharifi MN***, Mowers EE*, Collier CD, Drake LE, Chen H, Zamora M, Chen H, Mui S, Macleod KF. Autophagy promotes focal adhesion disassembly and cell motility of metastatic tumor cells through the direct interaction of paxillin with LC3. Cell Reports. 2016 May 24;15(8):1660-72. PMID: 27184837. *Contributed equally.

28. Brzezowski P, **Sharifi MN**, Dent RM, Morhard MK, Niyogi KK, Grimm B. Mg chelatase in chlorophyll synthesis and retrograde signaling in Chlamydomonas reinhardtii: CHLI2 cannot substitute for CHLI1. J Exp Bot. 2016 Jun;67(13):3925-38. PMID: 26809558.
29. Chourasia AH, Tracy K, Frankenberger C, Boland ML, **Sharifi MN**, Drake LE, Sachleben JR, Asara JM, Locasale JW, Karczmar GS, Macleod KF. Mitophagy defects arising from BNip3 loss promote mammary tumor progression to metastasis. EMBO Reports. 2015 Sep;16(9):1145-63. PMID: 26232272
30. **Sharifi MN**, Mowers EE, Drake LE, Macleod KF. Measuring autophagy in stressed cells. Methods Mol Biol. 2015;1292:129-50. PMID: 25804753.
31. Dent RM, **Sharifi MN**, Malnoë A, Haglund C, Calderon RH, Wakao S, Niyogi KK. Large-scale insertional mutagenesis of Chlamydomonas supports phylogenomic functional prediction of photosynthetic genes and analysis of classical acetate-requiring mutants. Plant J. 2015 Apr;82(2):337-351. PMID: 25711437
32. Kuo W, **Sharifi MN**, Lingen M, Karrison T, Nagilla M, Macleod KF, and Cohen E. p62/SQSTM1 Accumulation in Squamous Cell Carcinoma Of Head And Neck Predicts Sensitivity to Phosphatidylinositol 3-Kinase Pathway Inhibitors. PLoS One. 2014 Mar 5;9(3):e90171. PMID: 24599075
33. Tran PT, **Sharifi MN**, Poddar S, Dent RM, and Niyogi KK. Intragenic enhancers and suppressors of phytoene desaturase mutations in Chlamydomonas reinhardtii. PLoS One. 2012;7(8):e42196. PMID: 22912689

Manuscripts submitted/in preparation:

1. Helzer KT*, **Sharifi MN*,** Sperger JM, Bootsma ML, Reese SR, Taylor AK, Kaufmann KR, Krause H, Schehr J, Sethakorn N, Kosoff D, Kyriakopoulos CE, Bassetti M, Blitzer GC, Floberg J, Sjöstrom M, Armstrong AJ, Beltran H, McKay RR, Feng FY, O'Regan RM, Wisinski KB, Emamekhoo H, Wyatt AW, Lang JM†, Zhao SG†. *†Contributed equally. *Under revision, Nature Communications.*
2. Subramanian A, Zhang M, **Sharifi M**, Moreno-Rodriguez T, Feng E, Rydzewski NR, Shrestha R, Zhu X, Zhao SG, Aggarwal R, Small EJ, Ding CC, Quigley DA, Sjöström M. A prostate cancer gastrointestinal transcriptional phenotype may be associated with diminished response to AR-targeted therapy. *Under review.*
3. **Sharifi MN,** Sperger JM, Gilsdorf C, Wolfe SK, Parkes A, Wisinski KB, O'Regan, RM, Lang, JM. Detection of PI3K pathway activity in circulating tumor cells as a putative predictive biomarker for PI3K inhibitor therapies. *Manuscript in preparation.*

Book Chapters

1. **Sharifi, MN** and Leal, TA. Second line therapy in advanced non-small cell lung cancer (2023). In Horn, L and Gillaspie, EA (Eds.), Lung Cancer. Philadelphia: Elsevier.
2. **Sharifi, MN** and O'Regan, RM. Novel Non-HER2-targeted therapies in HER2+ Breast Cancer (2018). In Hurvitz, S and McCann, K (Eds.), HER2-Positive Breast Cancer. Philadelphia: Elsevier.

Invited Oral Presentations

1. 2025 Coffey-Holden Prostate Cancer Academy Meeting: *From circulation to colonization: liquid biopsies unveil the molecular journey of metastatic prostate cancer.* Los Angeles, CA, June 2025.
2. Prostate Cancer Foundation Molecular Imaging and Theranostics Working Group Seminar: *Prostate cancer lineage states identified by CTC RNA sequencing associate with resistance and response to 177Lu-PSMA-617.* Virtual seminar, June 2025.
3. Cancer Seminar Series, Loyola University Chicago Department of Cancer Biology: *Leveraging liquid biopsies to interrogate molecular drivers of treatment resistance in hormone driven cancers.* Chicago, IL. February 2025
4. Wisconsin Association of Hematology and Oncology Tenth Annual Wisconsin Review of the San Antonio Breast Cancer Symposium: *Genomics and Precision Medicine Updates*. Milwaukee, WI, January 2025.
5. AACR Special Conference on Liquid Biopsy: From Discovery to Clinical Implementation: *High purity CTC RNA sequencing identifies poor prognosis lineage states in castrate resistant prostate cancer.* San Diego, CA, November 2024.

6. University of Wisconsin Cancer Biology Seminar Series: *Leveraging liquid biopsies to interrogate molecular drivers of treatment resistance in hormone driven cancers.* Madison, WI. November 2024.
7. San Antonio Breast Cancer Symposium: Prognostic and Predictive Uses of Cell Free DNA (PS06): *Fragmentomic analysis of a circulating tumor DNA targeted cancer gene panel discriminates ER status in metastatic breast cancer liquid biopsies.* San Antonio, TX, December 2023.
8. Prostate Cancer Foundation 30th Scientific Retreat Young Investigator Forum: *Biomarkers of Aggressive Disease Biology in mCRPC: From Tissue to Liquid Biopsy.* Carlsbad, CA, October 2023.
9. OncLive 2023 State of the Science Summit: Breast cancer: ctDNA for Detection of Minimal Residual Disease. Madison, WI, September 2023.
10. Wisconsin Association of Hematology and Oncology Eighth Annual Wisconsin Review of the San Antonio Breast Cancer Symposium: *Genomics and Precision Medicine Updates*. Milwaukee, WI, January 2022.
11. University of Wisconsin Carbone Cancer Center Grand Rounds: *ASCO updates – Breast Cancer*. Madison, WI. September 2021.
12. Wisconsin Association of Hematology and Oncology Virtual Annual Conference: *Development of liquid biopsy biomarkers for PI3K inhibitor therapies.* August 2020.

Published Abstracts:

1. **Sharifi MN**, Sperger JM, Taylor AK, Tippins K, Schehr JL, Floberg JM, Kyriakopoulos C, Emamekhoo E, Tagawa ST, Choudhury AD, Armstrong AJ, Rathkopf D, Beltran H, Nelson P, Dehm SM, Kosoff D, Wei XX, McKay RR, Zhao SG, Lang JM. Integrated analysis of tissue genomic sequencing and high purity circulating tumor cell RNA sequencing for prostate cancer lineage states as a prognostic factor for survival and resistance to 177Lu-PSMA-617 in patients with metastatic castrate resistant prostate cancer. American Society for Clinical Oncology Annual Meeting, Chicago, IL. June 2025.
2. Chang AH, Sperger JM, Carreno V, Kaufmann KR, Bootsma ML, Reese SR, Nunamaker LA, Linebarger C, Taylor AK, Tippins KE, Helzer KT, Kosoff D, Zhao SG, Lang JM, **Sharifi MN.** Circulating Tumor Cell (CTC) RNA sequencing and single cell protein phenotyping reveals heterogeneity of cell surface target expression. American Association for Cancer Research Annual Meeting. Chicago, IL. April 2025.
3. Marr KD, Sperger JM, Taylor AK, Tippins K, Reese S, Helzer KT, Bootsma ML, Blitzer G, Floberg JM, Kosoff D, McKay RR, Wei XX, Zhao SG, Lang JM, **Sharifi MN**. Circulating tumor cell (CTC) expression patterns of cell surface targets in metastatic prostate cancer. ASCO Genitourinary Cancers Symposium. San Francisco, CA. February 2025. *Selected for Conquer Cancer 2025 Genitourinary Cancers Symposium Merit Award*
4. Helzer KT, Sperger JM, Shi Y, Carreno V, Krause HK, Kaufmann KR, Mora-Rodriguez L, Bootsma ML, Burkard ME, O'Regan RM, Wisinski KM, Lang JM, Zhao SG, West MT, **Sharifi MN.** Fragmentomic analysis of a circulating tumor DNA targeted cancer gene panel discriminates ER status in metastatic breast cancer liquid biopsies. San Antonio Breast Cancer Symposium. December 2023.
5. **Sharifi MN,** Helzer KT, Sperger JM, Bootsma, ML, Krause HK, Gilsdorf CS, Wolfe SK, Kauffman, Z, Tevaarwerk AT, Burkard ME, Parkes A, O'Regan, RM, Wisinski KB, Zhao, SG, Lang, JM. Simultaneous longitudinal assessment of PIK3CA genomic mutations and PI3K pathway activity via liquid biopsy in metastatic breast and prostate cancer. Hormone Dependent Cancers Gordon Research Conference. Newry, ME. August 2023.
6. **Sharifi MN,** Helzer KT, Krause HK, Sperger JM, Bootsma, ML, Gilsdorf CS, Wolfe SK, Kauffman, Z, Tevaarwerk AT, Burkard ME, Parkes A, O'Regan, RM, Wisinski KB, Zhao, SG, Lang, JM. Simultaneous longitudinal assessment of PIK3CA genomic mutations and PI3K pathway activity in circulating tumor cells in metastatic breast cancer. American Association for Cancer Research Annual Meeting. New Orleans, LA. April 2022.
7. **Sharifi MN,** Wolfe SK, Sperger JM, Schehr J, Bhattacharya S, Wisinski KB, Lang JM, O'Regan RM. Multiplex liquid biopsy for AR pathway activity in metastatic androgen receptor-positive triple negative breast cancer. American Association for Cancer Research Virtual Annual Meeting. April 2021.
8. **Sharifi MN,** Lovrec P, Eickhoff JC, Kenarsary A, Jarrard D, Floberg J, Cho SY, Kyriakopoulos CE, Emamekhoo H. Diagnostic utility of (18)F-Fluciclovine Positron Emission Tomogrophy in biochemically recurrent prostate cancer based on prior primary treatment modality for localized disease and subsequent treatment selection. Genitourinary Cancers Symposium, American Society of Clinical Oncology. February 2021.

9. **Sharifi MN,** Sperger JM, Gilsdorf C, Wolfe SK, Parkes A, Wisinski KB, O'Regan, RM, Lang, JM. Detection of PI3K pathway activation in circulating tumor cells in PIK3CA mutated metastatic breast cancer as a putative predictive biomarker for PI3K inhibitor therapies. San Antonio Breast Cancer Symposium. December 2020.
10. **Sharifi MN,** Wolfe SK, Sperger JM, Bhattacharya S, O'Regan, RM, Lang, JM. Androgen receptor expression and subcellular localization on circulating tumor cells in a Phase I trial of anti-androgen bicalutamide with CDK4/6 inhibitor ribociclib in metastatic androgen receptor-positive triple negative breast cancer. American Association for Cancer Research Virtual Annual Meeting II. June 2020.
11. **Sharifi MN,** Burkard ME, Traynor AM, Campbell, TC, Deming DA and Leal, TA. SCLC transformation as mechanism of resistance to EGFR TKI in NSCLC: predictors of transformation and importance of tissue biopsy upon disease progression. International Association for the Study of Lung Cancer Annual Targeted Therapies of Lung Cancer Meeting, Santa Monica, CA. February 2019.
12. **Sharifi MN,** Wisinski KB, Burkard ME, Tevaarwerk AJ, Tamkus D, Chan N, Truica C, Danciu O, Hoskins K and O'Regan, RM. A phase I trial of bicalutamide, an androgen receptor inhibitor, in combination with ribociclib, a CDK4/6 inhibitor, in advanced androgen receptor-positive triple negative breast cancer. San Antonio Breast Cancer Symposium, San Antonio, TX. December 2018.
13. **Sharifi MN**, Collier C, Drake L, Chen H, Zamora M, Mui S, and Macleod KF. Autophagy is required for focal adhesion turnover, tumor cell motility, and metastasis. American Association for Cancer Research Annual Meeting, San Diego, CA. April 2014.
14. **Sharifi MN**, Collier C, Drake L, Chen H, Mui S, and Macleod KF. Autophagy is required for metastasis in the 4T1 mouse model of breast cancer. Keystone Symposium on Tumor Metabolism, Keystone, CO. February 2013.
15. **Sharifi MN**, Collier C, Drake L, Chen H, Mui S, and Macleod KF. Loss of autophagy limits metastasis in the 4T1 mouse model of breast cancer. Joint Meeting of the American Physician Scientist Association/American Society for Clinical Investigation, Chicago, IL. April 2012.
16. **Sharifi MN**, Collier C, Drake L, Chen H, Mui S, and Macleod KF. Loss of autophagy limits metastasis in the 4T1 mouse model of breast cancer. Keystone Symposium on Autophagy, Whistler, B.C., March 2011.
17. **Sharifi MN**, Dent RM and Niyogi KK. Characterization of seven insertional mutants with pigment-deficient phenotypes in the photosynthetic model organism *Chlamydomonas reinhardtii*. 17th Western Photosynthesis Conference, Asilomar, CA, January 2007.

Employment

2006 – 2008 Staff Research Associate, University of California, Berkeley, Department of Plant and Molecular Biology. Principal Investigator: Krishna Niyogi, PhD.

Professional Memberships

American Society of Clinical Oncology
American Association of Cancer Research

Teaching

2024—present CRB/MEDICINE 701 — Cell Signaling and Human Disease, graduate seminar course
- Co-course director

2020—present Hematology/Oncology Fellows Didactic Series, University of Wisconsin, Madison
- Introductory Breast Cancer Lecture

2020—2022 Breast Oncology Journal Club, University of Wisconsin, Madison
- Leading monthly meetings for faculty/fellows on current topics in breast oncology

2012—2014 MSTP Grand Rounds, Pritzker School of Medicine
- Discussion Leader

2012 Teaching Assistant, Molecular Mechanisms of Cancer Biology

University of Chicago Biological Sciences Division

2012 Teaching Assistant Training Course, University of Chicago.

Mentoring

2020—present Zachary Kauffman, Graduate Student, co-mentor
2022—2024 Amy Taylor, Oncology Fellow, co-mentor
2022—2025 Adeline Ding, Graduate Student, co-mentor
2023—2025 Isabella Fernandez, Graduate Student, primary mentor
2024—present Kendra Marr, Oncology Fellow, co-mentor
2025—present William Stump, Graduate Student, primary mentor

Service

2024—present Co-Director, UWCCC Circulating Biomarker Core
2024—present Co-Chair, Translational Science Subcommittee, UW Institute for Theranostics and Particle Therapy
2023—present Co-Director UWCCC Grand Rounds
2023—present Assistant Director, University of Wisconsin Physician Scientist Training Program
2019—2022 Deputy Editor, NCI Cancer Center Tumor Board Program, theMednet.org
- Supervising Associate Editors, expanding program to new disease sites including GU Oncology, Multiple Myeloma, and Lymphoma

2020—2021 UW Madison Department of Medicine COVID Research Committee
2012—2016 MSTP Student Council, Pritzker School of Medicine