

Background Information

Name and Contact Information

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Formal Education

Undergraduate

1993 – 1997 B.S. Psychology, University of Iowa, Iowa City, IA

Graduate/Medical School

1997 – 1999 M.S. Kinesiology-University of Illinois at Chicago, Chicago, IL

2002 – 2006 M.D. University of Illinois at Chicago, Chicago, IL

2013 – 2017 M.S. Clinical Investigation-University of Wisconsin, Madison, WI

Internship

2006 – 2007 University of Wisconsin Hospitals and Clinics, Madison, WI
Internal Medicine - ABIM Research Pathway

Residency

2007 – 2008 University of Wisconsin Hospitals and Clinic, Madison, WI
Internal Medicine – ABIM Research Pathway

Postgraduate/Fellowship

2008 – 2011 University of Wisconsin Hospitals and Clinics, Madison, WI
Medical Oncology- ABIM Research Pathway

Certification and Licensure

2008 – Present Wisconsin License

Specialty/Subspecialty Certification

2011 – Present Board Certified in Medical Oncology, Expires: 12/2031

Current Positions

2017 – Present Co-Director, University of Wisconsin Physician Scientist Training Program, Department of Medicine, Madison, WI

2018 – Present Associate Professor (Tenure), Dept. of Medicine, Hematology/Oncology Division, University of Wisconsin, Madison, WI

2019 – Present Associate Program Director for Research, University of Wisconsin Hematology/Oncology Fellowship program, University of Wisconsin,

Madison, WI

- 2021 – Present Vice Chair for Biomedical Research, Dept. of Medicine, University of Wisconsin, Madison, WI
- 2023 – Present Associate Director of Translational Research, Carbone Cancer Center, University of Wisconsin, Madison, WI

Past Positions

Academic Appointments

- 2012 – 2018 Assistant Professor (Tenure), Dept. of Medicine, Hematology/Oncology Division, Affiliate, Dept. of Biomedical Engineering, University of Wisconsin, Madison, WI

Clinical/Hospital Positions

- 2011 – 2012 Clinical Instructor, Dept. of Medicine, Hematology/Oncology Division, University of Wisconsin Madison, WI
- 2013 – 2019 Co-Leader, Biomarker Working Group, University of Wisconsin-CINJ Alliance in Precision Experimental Therapeutics, Madison, WI
- 2015 – 2018 Clinical Co-Chair, Precision Medicine Molecular Tumor Board, University of Wisconsin Carbone Cancer Center, Madison, WI

Honors and Awards

Honors and Awards prior to promotion to Associate Professor are gray

- 1997 Dean's List, University of Iowa
- 2004 University of Illinois, College of Medicine Research Forum Award
- 2004 Best Research Paper in Experimental Biology, Society for Experimental Biology and Medicine
- 2009 American Society of Clinical Oncology Merit Award
- 2009 Helen Dickie Fellow's Research Award, University of Wisconsin
- 2010 Prostate Cancer Foundation Young Investigator Award
- 2014 Puestow Junior Faculty Research Award, Department of Medicine, University of Wisconsin
- 2015 Award for Research Excellence, Division of Hematology/Oncology, University of Wisconsin
- 2023 Alpha Omega Alpha Honor Medical Society

Professional Society Memberships

- 2011 – Present American Society of Clinical Oncology
- 2011 – Present American Association of Cancer Research

Publications

Peer-Reviewed Publications

- 1 Swoap SJ, Hunter RB, Stevenson EJ, Felton HM, Kansagra NV, **Lang JM**, Esser KA,

- Kandarian SC. The calcineurin-NFAT pathway and muscle fiber-type gene expression. *Am J Physiol Cell Physiol*. 2000 Oct;279(4):C915-24. doi: 10.1152/ajpcell.2000.279.4.C915. PubMed PMID: [11003571](#).
- 2 **Lang JM**, Esser KA, Dupont-Versteegden EE. Altered activity of signaling pathways in diaphragm and tibialis anterior muscle of dystrophic mice. *Exp Biol Med* (Maywood). 2004 Jun;229(6):503-11. doi: 10.1177/153537020422900608. PubMed PMID: [15169969](#).
 - 3 **Lang JM**, Harrison MR. Pazopanib for the treatment of patients with advanced renal cell carcinoma. *Clin Med Insights Oncol*. 2010 Oct 1;4:95-105. doi: 10.4137/CMO.S4088. PubMed PMID: [20981133](#); PubMed Central PMCID: PMC2956476.
 - 4 **Lang JM**, Kaikobad MR, Wallace M, Staab MJ, Horvath DL, Wilding G, Liu G, Eickhoff JC, McNeel DG, Malkovsky M. Pilot trial of interleukin-2 and zoledronic acid to augment $\gamma\delta$ T cells as treatment for patients with refractory renal cell carcinoma. *Cancer Immunol Immunother*. 2011 Oct;60(10):1447-60. doi: 10.1007/s00262-011-1049-8. Epub 2011 Jun 7. PubMed PMID: [21647691](#); PubMed Central PMCID: PMC3177972.
 - 5 Smith HA, Cronk RJ, **Lang JM**, McNeel DG. Expression and immunotherapeutic targeting of the SSX family of cancer-testis antigens in prostate cancer. *Cancer Res*. 2011 Nov 1;71(21):6785-95. doi: 10.1158/0008-5472.CAN-11-2127. Epub 2011 Aug 31. PubMed PMID: [21880588](#).
 - 6 McNeel DG, Smith HA, Eickhoff JC, **Lang JM**, Staab MJ, Wilding G, Liu G. Phase I trial of tremelimumab in combination with short-term androgen deprivation in patients with PSA-recurrent prostate cancer. *Cancer Immunol Immunother*. 2012 Jul;61(7):1137-47. doi: 10.1007/s00262-011-1193-1. Epub 2011 Dec 31. PubMed PMID: [22210552](#); PubMed Central PMCID: PMC3349783.
 - 7 Casavant BP, Guckenberger DJ, Berry SM, Tokar JT, **Lang JM**, Beebe DJ. The VeriFAST: an integrated method for cell isolation and extracellular/intracellular staining. *Lab Chip*. 2013 Feb 7;13(3):391-6. doi: 10.1039/c2lc41136a. PubMed PMID: [23223939](#).
 - 8 Strotman L, O'Connell R, Casavant BP, Berry SM, Sperger JM, **Lang JM**, Beebe DJ. Selective nucleic acid removal via exclusion (SNARE): capturing mRNA and DNA from a single sample. *Anal Chem*. 2013 Oct 15;85(20):9764-70. doi: 10.1021/ac402162r. Epub 2013 Sep 26. PubMed PMID: [24016179](#); PubMed Central PMCID: PMC3897163.
 - 9 **Lang JM**, Wallace M, Becker JT, Eickhoff JC, Buehring B, Binkley N, Staab MJ, Wilding G, Liu G, Malkovsky M, McNeel DG. A randomized phase II trial evaluating different schedules of zoledronic acid on bone mineral density in patients with prostate cancer beginning androgen deprivation therapy. *Clin Genitourin Cancer*. 2013 Dec;11(4):407-15. doi: 10.1016/j.clgc.2013.04.029. Epub 2013 Jul 5. PubMed PMID: [23835291](#); PubMed Central PMCID: PMC3836858.
 - 10 Casavant BP, Mosher R, Warrick JW, Maccoux LJ, Berry SM, Becker JT, Chen V, **Lang JM**, McNeel DG, Beebe DJ. A negative selection methodology using a microfluidic

- platform for the isolation and enumeration of circulating tumor cells. *Methods*. 2013 Dec 1;64(2):137-43. doi: 10.1016/j.ymeth.2013.05.027. Epub 2013 Jun 24. PubMed PMID: [23806645](#); PubMed Central PMCID: PMC3858973.
- 11 Casavant BP, Strotman LN, Tokar JJ, Thiede SM, Traynor AM, Ferguson JS, **Lang JM**, Beebe DJ. Paired diagnostic and pharmacodynamic analysis of rare non-small cell lung cancer cells enabled by the VerIFAST platform. *Lab Chip*. 2014 Jan 7;14(1):99-105. doi: 10.1039/c3lc50912e. PubMed PMID: [24158597](#); PubMed Central PMCID: PMC3897162.
 - 12 Schehr JL, Schultz ZD, Warrick JW, Guckenberger DJ, Pezzi HM, Sperger JM, Heninger E, Saeed A, Leal T, Mattox K, Traynor AM, Campbell TC, Berry SM, Beebe DJ, **Lang JM**. High Specificity in Circulating Tumor Cell Identification Is Required for Accurate Evaluation of Programmed Death-Ligand 1. *PLoS One*. 2016;11(7):e0159397. doi: 10.1371/journal.pone.0159397. eCollection 2016. PubMed PMID: [27459545](#); PubMed Central PMCID: PMC4961410.
 - 13 Heninger E, Krueger TE, Thiede SM, Sperger JM, Byers BL, Kircher MR, Kosoff D, Yang B, Jarrard DF, McNeel DG, **Lang JM**. Inducible expression of cancer-testis antigens in human prostate cancer. *Oncotarget*. 2016 Dec 20;7(51):84359-84374. doi: 10.18632/oncotarget.12711. PubMed PMID: [27769045](#); PubMed Central PMCID: PMC5341296.
 - 14 Blute ML Jr, Ziemlewicz TJ, **Lang JM**, Kyriakopoulos C, Jarrard DF, Downs TM, Grimes M, Shi F, Mann MA, Abel EJ. Metastatic Tumor Burden Does Not Predict Overall Survival Following Cytoreductive Nephrectomy for Renal Cell Carcinoma: a Novel 3-Dimensional Volumetric Analysis. *Urology*. 2017 Feb;100:139-144. doi: 10.1016/j.urology.2016.09.016. Epub 2016 Sep 22. PubMed PMID: [27667156](#).
 - 15 Sperger JM, Strotman LN, Welsh A, Casavant BP, Chalmers Z, Horn S, Heninger E, Thiede SM, Tokar J, Gibbs BK, Guckenberger DJ, Carmichael L, Dehm SM, Stephens PJ, Beebe DJ, Berry SM, **Lang JM**. Integrated Analysis of Multiple Biomarkers from Circulating Tumor Cells Enabled by Exclusion-Based Analyte Isolation. *Clin Cancer Res*. 2017 Feb;23(3):746-756. doi: 10.1158/1078-0432.CCR-16-1021. Epub 2016 Jul 11. PubMed PMID: [27401243](#); PubMed Central PMCID: PMC5226928.
 - 16 Tokar JJ, Warrick JW, Guckenberger DJ, Sperger JM, **Lang JM**, Ferguson JS, Beebe DJ. Interrogating Bronchoalveolar Lavage Samples via Exclusion-Based Analyte Extraction. *SLAS Technol*. 2017 Jun;22(3):348-357. doi: 10.1177/2472630317696780. Epub 2017 Mar 15. PubMed PMID: [28298147](#); PubMed Central PMCID: PMC5603149.
 - 17 Burkard ME, Deming DA, Parsons BM, Kenny PA, Schuh MR, Leal T, Uboha N, **Lang JM**, Thompson MA, Warren R, Bauman J, Mably MS, Laffin J, Paschal CR, Lager AM, Lee K, Matkowskyj KA, Buehler DG, Rehrauer WM, Kolesar J. Implementation and Clinical Utility of an Integrated Academic-Community Regional Molecular Tumor Board. *JCO Precis Oncol*. 2017;1. doi: 10.1200/PO.16.00022. eCollection 2017. PubMed PMID: [32913980](#); PubMed Central PMCID: PMC7450916.
 - 18 Kohli M, Ho Y, Hillman DW, Van Etten JL, Henzler C, Yang R, Sperger JM, Li Y, Tseng E, Hon T, Clark T, Tan W, Carlson RE, Wang L, Sicotte H, Thai H, Jimenez R, Huang H,

- Vedell PT, Eckloff BW, Quevedo JF, Pitot HC, Costello BA, Jen J, Wieben ED, Silverstein KAT, **Lang JM**, Wang L, Dehm SM. Androgen Receptor Variant AR-V9 Is Coexpressed with AR-V7 in Prostate Cancer Metastases and Predicts Abiraterone Resistance. *Clin Cancer Res*. 2017 Aug 15;23(16):4704-4715. doi: 10.1158/1078-0432.CCR-17-0017. Epub 2017 May 4. PubMed PMID: [28473535](#); PubMed Central PMCID: PMC5644285.
- 19 Johnson BP, Vitek RA, Geiger PG, Huang W, Jarrard DF, Lang JM, Beebe DJ. Vital ex vivo tissue labeling and pathology-guided micropunching to characterize cellular heterogeneity in the tissue microenvironment. *Biotechniques*. 2018 Jan 1;64(1):13-19. doi: 10.2144/000114626. PubMed PMID: [29384072](#); PubMed Central PMCID: PMC5814138.
- 20 Ward Y, Lake R, Faraji F, Sperger J, Martin P, Gilliard C, Ku KP, Rodems T, Niles D, Tillman H, Yin J, Hunter K, Sowalsky AG, **Lang J**, Kelly K. Platelets Promote Metastasis via Binding Tumor CD97 Leading to Bidirectional Signaling that Coordinates Transendothelial Migration. *Cell Rep*. 2018 Apr 17;23(3):808-822. doi: 10.1016/j.celrep.2018.03.092. PubMed PMID: [29669286](#); PubMed Central PMCID: PMC6574118.
- 21 Pezzi HM, Niles DJ, Schehr JL, Beebe DJ, **Lang JM**. Integration of Magnetic Bead-Based Cell Selection into Complex Isolations. *ACS Omega*. 2018 Apr 30;3(4):3908-3917. doi: 10.1021/acsomega.7b01427. Epub 2018 Apr 6. PubMed PMID: [29732449](#); PubMed Central PMCID: PMC5928489.
- 22 Pollan SG, Huang F, Sperger JM, **Lang JM**, Morrissey C, Cress AE, Chu CY, Bhowmick NA, You S, Freeman MR, Spassov DS, Moasser MM, Carter WG, Satapathy SR, Shah K, Knudsen BS. Regulation of inside-out β 1-integrin activation by CDCP1. *Oncogene*. 2018 May;37(21):2817-2836. doi: 10.1038/s41388-018-0142-2. Epub 2018 Mar 7. PubMed PMID: [29511352](#); PubMed Central PMCID: PMC6824599.
- 23 Li C, Yu J, Schehr J, Berry SM, Leal TA, **Lang JM**, Beebe DJ. Exclusive Liquid Repellency: An Open Multi-Liquid-Phase Technology for Rare Cell Culture and Single-Cell Processing. *ACS Appl Mater Interfaces*. 2018 May 23;10(20):17065-17070. doi: 10.1021/acsomega.8b03627. Epub 2018 May 8. PubMed PMID: [29738227](#).
- 24 Chalfin HJ, Glavaris SA, Malihi PD, Sperger JM, Gorin MA, Lu C, Goodwin CR, Chen Y, Caruso EA, Dumpit R, Kuhn P, **Lang JM**, Nelson PS, Luo J, Pienta KJ. Prostate Cancer Disseminated Tumor Cells are Rarely Detected in the Bone Marrow of Patients with Localized Disease Undergoing Radical Prostatectomy across Multiple Rare Cell Detection Platforms. *J Urol*. 2018 Jun;199(6):1494-1501. doi: 10.1016/j.juro.2018.01.033. Epub 2018 Jan 12. PubMed PMID: [29339080](#); PubMed Central PMCID: PMC5964005.
- 25 Kosoff D, Yu J, Suresh V, Beebe DJ, **Lang JM**. Surface topography and hydrophilicity regulate macrophage phenotype in milled microfluidic systems. *Lab Chip*. 2018 Sep 26;18(19):3011-3017. doi: 10.1039/c8lc00431e. PubMed PMID: [30131982](#); PubMed Central PMCID: PMC6178814.
- 26 Pezzi HM, Guckenberger DJ, Schehr JL, Rothbauer J, Stahlfeld C, Singh A, Horn S, Schultz ZD, Bade RM, Sperger JM, Berry SM, **Lang JM**, Beebe DJ. Versatile exclusion-

- based sample preparation platform for integrated rare cell isolation and analyte extraction. *Lab Chip*. 2018 Nov 6;18(22):3446-3458. doi: 10.1039/c8lc00620b. PubMed PMID: [30334061](#); PubMed Central PMCID: [PMC6402328](#).
- 27 Emamekhoo H, **Lang JM**. Are liquid biopsies ready for primetime?. *Cancer*. 2019 Mar 15;125(6):834-837. doi: 10.1002/cncr.31644. Epub 2018 Dec 23. PubMed PMID: [30582152](#).
- 28 Mohler JL, Antonarakis ES, Armstrong AJ, D'Amico AV, Davis BJ, Dorff T, Eastham JA, Enke CA, Farrington TA, Higano CS, Horwitz EM, Hurwitz M, Ippolito JE, Kane CJ, Kuettel MR, **Lang JM**, McKenney J, Netto G, Penson DF, Plimack ER, Pow-Sang JM, Pugh TJ, Richey S, Roach M, Rosenfeld S, Schaeffer E, Shabsigh A, Small EJ, Spratt DE, Srinivas S, Tward J, Shead DA, Freedman-Cass DA. Prostate Cancer, Version 2.2019, NCCN Clinical Practice Guidelines in Oncology. *J Natl Compr Canc Netw*. 2019 May 1;17(5):479-505. doi: 10.6004/jnccn.2019.0023. PubMed PMID: [31085757](#).
- 29 Rutkowski DR, Wells SA, Johnson B, Huang W, Jarrard DF, **Lang JM**, Cho S, Roldán-Alzate A. Mri-based cancer lesion analysis with 3d printed patient specific prostate cutting guides. *Am J Clin Exp Urol*. 2019;7(4):215-222. eCollection 2019. PubMed PMID: [31511828](#); PubMed Central PMCID: [PMC6734042](#).
- 30 Juang DS, Berry SM, Li C, **Lang JM**, Beebe DJ. Centrifugation-Assisted Immiscible Fluid Filtration for Dual-Bioanalyte Extraction. *Anal Chem*. 2019 Sep 17;91(18):11848-11855. doi: 10.1021/acs.analchem.9b02572. Epub 2019 Aug 26. PubMed PMID: [31411020](#); PubMed Central PMCID: [PMC7521759](#).
- 31 Li C, Niles DJ, Juang DS, **Lang JM**, Beebe DJ. Automated System for Small-Population Single-Particle Processing Enabled by Exclusive Liquid Repellency. *SLAS Technol*. 2019 Dec;24(6):535-542. doi: 10.1177/2472630319853219. Epub 2019 Jun 10. PubMed PMID: [31180792](#); PubMed Central PMCID: [PMC7521760](#).
- 32 Rosenberg J, Sridhar SS, Zhang J, Smith D, Ruether D, Flaig TW, Baranda J, **Lang J**, Plimack ER, Sangha R, Heath EI, Merchan J, Quinn DI, Srinivas S, Milowsky M, Wu C, Gartner EM, Zuo P, Melhem-Bertrandt A, Petrylak DP. EV-101: A Phase I Study of Single-Agent Enfortumab Vedotin in Patients With Nectin-4-Positive Solid Tumors, Including Metastatic Urothelial Carcinoma. *J Clin Oncol*. 2020 Apr 1;38(10):1041-1049. doi: 10.1200/JCO.19.02044. Epub 2020 Feb 7. PubMed PMID: [32031899](#); PubMed Central PMCID: [PMC7106979](#).
- 33 Tokar JJ, Stahlfeld CN, Sperger JM, Niles DJ, Beebe DJ, **Lang JM**, Warrick JW. Pairing Microwell Arrays with an Affordable, Semiautomated Single-Cell Aspirator for the Interrogation of Circulating Tumor Cell Heterogeneity. *SLAS Technol*. 2020 Apr;25(2):162-176. doi: 10.1177/2472630319898146. Epub 2020 Jan 26. PubMed PMID: [31983266](#).
- 34 Dudek AZ, Liu LC, Gupta S, Logan TF, Singer EA, Joshi M, Zakharia YN, **Lang JM**, Schwarz JK, Al-Janadi A, Alva AS. Phase Ib/II Clinical Trial of Pembrolizumab With Bevacizumab for Metastatic Renal Cell Carcinoma: BTCRC-GU14-003. *J Clin Oncol*. 2020 Apr 10;38(11):1138-1145. doi: 10.1200/JCO.19.02394. Epub 2020 Feb 25. PubMed PMID: [32097091](#); PubMed Central PMCID: [PMC7145584](#).

- 35 Singh A, Denu RA, Wolfe SK, Sperger JM, Schehr J, Witkowsky T, Esbona K, Chappell RJ, Weaver BA, Burkard ME, **Lang JM**. Centrosome amplification is a frequent event in circulating tumor cells from subjects with metastatic breast cancer. *Mol Oncol*. 2020 Aug;14(8):1898-1909. doi: 10.1002/1878-0261.12687. Epub 2020 May 19. PubMed PMID: [32255253](#); PubMed Central PMCID: PMC7400789.
- 36 Zhao SG, Chen WS, Li H, Foye A, Zhang M, Sjöström M, Aggarwal R, Playdle D, Liao A, Alumkal JJ, Das R, Chou J, Hua JT, Barnard TJ, Bailey AM, Chow ED, Perry MD, Dang HX, Yang R, Moussavi-Baygi R, Zhang L, Alshalalfa M, Laura Chang S, Houlahan KE, Shiah YJ, Beer TM, Thomas G, Chi KN, Gleave M, Zoubeidi A, Reiter RE, Rettig MB, Witte O, Yvonne Kim M, Fong L, Spratt DE, Morgan TM, Bose R, Huang FW, Li H, Chesner L, Shenoy T, Goodarzi H, Asangani IA, Sandhu S, **Lang JM**, Mahajan NP, Lara PN, Evans CP, Febbo P, Batzoglou S, Knudsen KE, He HH, Huang J, Zwart W, Costello JF, Luo J, Tomlins SA, Wyatt AW, Dehm SM, Ashworth A, Gilbert LA, Boutros PC, Farh K, Chinnaiyan AM, Maher CA, Small EJ, Quigley DA, Feng FY. The DNA methylation landscape of advanced prostate cancer. *Nat Genet*. 2020 Aug;52(8):778-789. doi: 10.1038/s41588-020-0648-8. Epub 2020 Jul 13. PubMed PMID: [32661416](#); PubMed Central PMCID: PMC7454228.
- 37 Kerr SC, Morgan MM, Gillette AA, Livingston MK, Lugo-Cintron KM, Favreau PF, Florek L, Johnson BP, **Lang JM**, Skala MC, Beebe DJ. A bioengineered organotypic prostate model for the study of tumor microenvironment-induced immune cell activation. *Integr Biol (Camb)*. 2020 Oct 16;12(10):250-262. doi: 10.1093/intbio/zyaa020. PubMed PMID: [33034643](#); PubMed Central PMCID: PMC7569006.
- 38 Kyriakopoulos CE, Heath EI, Ferrari A, Sperger JM, Singh A, Perlman SB, Roth AR, Perk TG, Modelska K, Porcari A, Duggan W, **Lang JM**, Jeraj R, Liu G. Exploring Spatial-Temporal Changes in ¹⁸F-Sodium Fluoride PET/CT and Circulating Tumor Cells in Metastatic Castration-Resistant Prostate Cancer Treated With Enzalutamide. *J Clin Oncol*. 2020 Nov 1;38(31):3662-3671. doi: 10.1200/JCO.20.00348. Epub 2020 Sep 8. PubMed PMID: [32897830](#).
- 39 Heninger E, Sethakorn N, Kosoff D, Hematti P, Kuczler MD, Pienta KJ, **Lang JM**. Immune profiling of the bone marrow microenvironment in patients with high-risk localized prostate cancer. *Oncotarget*. 2020 Nov 17;11(46):4253-4265. doi: 10.18632/oncotarget.27817. eCollection 2020 Nov 17. PubMed PMID: [33245727](#); PubMed Central PMCID: PMC7679037.
- 40 Schaeffer E, Srinivas S, Antonarakis ES, Armstrong AJ, Bekelman JE, Cheng H, D'Amico AV, Davis BJ, Desai N, Dorff T, Eastham JA, Farrington TA, Gao X, Horwitz EM, Ippolito JE, Kuettel MR, **Lang JM**, McKay R, McKenney J, Netto G, Penson DF, Pow-Sang JM, Reiter R, Richey S, Roach III M, Rosenfeld S, Shabsigh A, Spratt DE, Tepy BA, Tward J, Shead DA, Freedman-Cass DA. NCCN Guidelines Insights: Prostate Cancer, Version 1.2021. *J Natl Compr Canc Netw*. 2021 Feb 2;19(2):134-143. doi: 10.6004/jnccn.2021.0008. PubMed PMID: [33545689](#).
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- phase I/II IMMU-132-01 basket trial. *Ann Oncol*. 2021 Mar 16;. doi: 10.1016/j.annonc.2021.03.005. [Epub ahead of print] PubMed PMID: [33741442](#).
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- 47 Rydzewski NR, Peterson E, **Lang JM**, Yu M, Laura Chang S, Sjöström M, Bakhtiar H, Song G, Helzer KT, Bootsma ML, Chen WS, Shrestha RM, Zhang M, Quigley DA, Aggarwal R, Small EJ, Wahl DR, Feng FY, Zhao SG. Predicting cancer drug TARGETS - Treatment Response Generalized Elastic-net Signatures. *NPJ Genom Med*. 2021 Sep 21;6(1):76. doi: 10.1038/s41525-021-00239-z. PubMed PMID: [34548481](#).
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- persistent androgen receptor signaling. *Med Oncol.* 2021 Sep 28;38(11):135. doi: 10.1007/s12032-021-01582-y. PubMed PMID: [34581895](#).
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Reviews, Case Reports, and Other

- 1 **Lang JM**, Andrei AC, McNeel DG. Prioritization of cancer antigens: keeping the target in sight. *Expert Rev Vaccines.* 2009 Dec;8(12):1657-61. doi: 10.1586/erv.09.134. PubMed PMID: [19943761](#).
- 2 **Lang JM**, Casavant BP, Beebe DJ. Circulating tumor cells: getting more from less. *Sci Transl Med.* 2012 Jul 4;4(141):141ps13. doi: 10.1126/scitranslmed.3004261. PubMed PMID: [22764205](#).
- 3 Bruce JY, Lang JM, McNeel DG, Liu G. Current controversies in the management of biochemical failure in prostate cancer. *Clin Adv Hematol Oncol.* 2012 Nov;10(11):716-22. Review. PubMed PMID: [23271258](#).
- 4 Kosoff D, Krueger T, **Lang JM**. Targeting epigenetic mechanisms for clinical translation: enhancing the efficacy of tumor immunotherapies. *Immunotherapy.* 2013 Nov;5(11):1243-54. doi: 10.2217/imt.13.116. Review. PubMed PMID: [24188678](#).
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- 6 Héninger E, Krueger TE, **Lang JM**. Augmenting antitumor immune responses with epigenetic modifying agents. *Front Immunol.* 2015;6:29. doi: 10.3389/fimmu.2015.00029. eCollection 2015. Review. PubMed PMID: [25699047](#); PubMed Central PMCID: PMC4316783.
- 7 Miyahira AK, **Lang JM**, Den RB, Garraway IP, Lotan TL, Ross AE, Stoyanova T, Cho SY, Simons JW, Pienta KJ, Soule HR. Multidisciplinary intervention of early, lethal metastatic prostate cancer: Report from the 2015 Coffey-Holden Prostate Cancer Academy Meeting. *Prostate.* 2016 Feb;76(2):125-39. doi: 10.1002/pros.23107. Epub 2015 Oct 19. Review. PubMed PMID: [26477609](#); PubMed Central PMCID:

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- 8 Luo J, Attard G, Balk SP, Bevan C, Burnstein K, Cato L, Cherkasov A, De Bono JS, Dong Y, Gao AC, Gleave M, Heemers H, Kanayama M, Kittler R, **Lang JM**, Lee RJ, Logothetis CJ, Matusik R, Plymate S, Sawyers CL, Selth LA, Soule H, Tilley W, Weigel NL, Zoubeidi A, Dehm SM, Raj GV. Role of Androgen Receptor Variants in Prostate Cancer: Report from the 2017 Mission Androgen Receptor Variants Meeting. *Eur Urol*. 2018 May;73(5):715-723. doi: 10.1016/j.eururo.2017.11.038. Epub 2017 Dec 16. Review. PubMed PMID: [29258679](#); PubMed Central PMCID: PMC5929166.
- 9 Damodaran S, **Lang JM**, Jarrard DF. Targeting Metastatic Hormone Sensitive Prostate Cancer: Chemohormonal Therapy and New Combinatorial Approaches. *J Urol*. 2019 May;201(5):876-885. doi: 10.1097/JU.000000000000117. Review. PubMed PMID: [30747897](#).
- 10 Kosoff D, **Lang JM**. Development and translation of novel therapeutics targeting tumor-associated macrophages. *Urol Oncol*. 2019 Aug;37(8):556-562. doi: 10.1016/j.urolonc.2018.10.010. Epub 2018 Nov 17. Review. PubMed PMID: [30458979](#); PubMed Central PMCID: PMC6525088.
- 11 **Lang JM**. Understanding dynamic interactions in the prostate tumor microenvironment. *Urol Oncol*. 2019 Aug;37(8):532-534. doi: 10.1016/j.urolonc.2019.05.014. Epub 2019 Jul 9. Review. PubMed PMID: [31300353](#).
- 12 Sperger JM, Feng FY, Armstrong AJ, Zhao SG, **Lang JM**. Reply to M. K. Bos et al. *J Clin Oncol*. 2022 Feb 10;40(5):520-522. doi: 10.1200/JCO.21.02238. Epub 2021 Dec 8. PubMed PMID: [34878806](#).
- 13 Sethakorn N, Heninger E, Sánchez-de-Diego C, Ding AB, Yada RC, Kerr SC, Kosoff D, Beebe DJ, **Lang JM**. Advancing Treatment of Bone Metastases through Novel Translational Approaches Targeting the Bone Microenvironment. *Cancers (Basel)*. 2022 Feb 1;14(3). doi: 10.3390/cancers14030757. Review. PubMed PMID: [35159026](#); PubMed Central PMCID: PMC8833657.
- 14 Ayuso JM, Virumbrales-Muñoz M, **Lang JM**, Beebe DJ. A role for microfluidic systems in precision medicine. *Nat Commun*. 2022 Jun 2;13(1):3086. doi: 10.1038/s41467-022-30384-7. Review. PubMed PMID: [35654785](#); PubMed Central PMCID: PMC9163169.
- 15 Taylor AK, Kosoff D, Enamekhoo H, Lang JM, Kyriakopoulos CE. PARP inhibitors in metastatic prostate cancer. *Front Oncol*. 2023 Apr 24;13:1159557. doi: 10.3389/fonc.2023.1159557. PMID: [37168382](#); PMCID: PMC10165068.

Papers Submitted to Peer-Reviewed Journals – N/A

Non-Peer Reviewed Articles – N/A

Conference Publications – N/A

Monographs or Books – N/A

Chapters in Books, Videos or Other Appropriate Media

1. Eric K. Sackmann, Benjamin P. Casavant, S. Farshid Moussavi-Harami, David J. Beebe, **Joshua M. Lang**. "Cell-based Microfluidic Assays in Translational Medicine". Engineering in Translational Medicine, 1st Edition. Springer Publishing. W Cai, Ed. 2013.
2. David Kosoff, Benjamin P. Casavant, **Joshua M. Lang**. "Directing Circulating Tumor Cell Technologies into Clinical Practice: Clinical Needs, Technology Development, and Regulatory Requirements". Circulating Tumor Cells: Isolation and Analysis, 1st Edition. Wiley Publishing. Z. Hugh Fan, Ed. 2015

Visual Scholarships

N/A

Invited Editorials, Technical Reports, and Other Publications

1. Beebe DJ, **Lang JM**. Editorial for "methods for the isolation and analysis of rare cells". *Methods*. 2013 Dec 1;64(2):101. doi: 10.1016/j.ymeth.2013.10.017. PubMed PMID: [24238070](#).

Patents

1. A Device for and Method of Isolating and Analyzing a Fraction in a Biological Sample. US 13/604192. 9/5/2012.
2. Volume-Free Reagent Addition and Exclusion-Based Sample Preparation for Streamlined Multi-Step Assays. US 11,618,021. 4/4/2023
3. Rationael for Combining Sacituzumab Govitecan and Androgen Receptor Inhibitors in Prostate Cancer. Submitted 8/2023

Invited Research Presentations

Research presentations prior to promotion to Associate Professor are in gray.

Departmental

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| 2013 | Translational Biomarkers in Oncology: Engineering Solutions and Clinical Integration. Joshua M. Lang and David J. Beebe. University of Wisconsin Department of Medicine Grand Rounds. Madison, WI. May 3, 2013. |
| 2015 | Next Generation Biomarkers: Liquid Biopsies for Solid Tumors. Joshua M. Lang. University of Wisconsin Department of Medicine Grand Rounds. Madison, WI. November 13, 2015. |

UWSMPH/Hospital

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| 2010 | Vaccine Therapies in Prostate Cancer: Strategies to Improve Survival. Joshua M. Lang and Douglas G. McNeel. University of Wisconsin Carbone Cancer Center Grand Rounds. Madison, WI. June 30, 2010. |
| 2011 | Promotion of Anti-Tumor Immune Responses. Joshua M. Lang. University of Wisconsin Carbone Cancer Center Grand Rounds. Madison, WI. August 10, 2011. |
| 2013 | Translational Biomarkers for Clinical Care and Clinical Research. Joshua M. Lang. University of Wisconsin Carbone Cancer Center Grand Rounds. Madison, WI. May 22, 2013. |

- 2013 Integration of Circulating Biomarkers in Early Phase Clinical Trials. Joshua M. Lang. UW Cancer Therapy Discovery and Development Meeting. Madison, WI. Nov 14, 2013.
- 2015 Pharmacodynamic and Discovery Biomarkers in Solid Tumors. Joshua M. Lang, University of Wisconsin Carbone Cancer Center Annual Retreat. Madison, WI. Feb 28, 2015.
- 2016 Liquid Biopsies as Pharmacodynamic Biomarkers in Solid Tumor Oncology. University of Wisconsin Carbone Cancer Center Grand Rounds. Madison, WI. March 30, 2016.
- 2016 Translational Biomarkers: Connecting Engineering and Biology with Clinical Practice. McCardle Laboratory for Cancer Research Cancer Biology Series. April 13, 2016. *Student's Choice Presenter

Local

- 2013 Translational Biomarkers: Circulating Tumor Cells in Clinical Research and Clinical Practice. Joshua M. Lang. Land O'Lakes Conference on Drug Metabolism/Applied Pharmacokinetic-Keynote Address. Madison, WI. Sep 23, 2013.
- 2014 Circulating Tumor Cells in Clinical Research and Practice. Joshua M. Lang. Fifteenth Annual Land O'Lakes Bioanalytical Conference-Keynote Address. Madison, WI. Jul 21, 2014.
- 2020 Liquid Biopsies in Solid Tumor: Development to Validation and Back Again. Pathology Grand Rounds. Madison, WI.
- 2023 What is Your Why? Patients, Research and How We Make a Difference. Community Health Volunteers of Madison. University of Wisconsin-Madison
- 2023 Liquid Biopsies In Cancer. UW Carbone Cancer Center African American Community Advocacy Board.

National

- 1999 *In Vivo* Regulation of the Myosin Light Chain 2 slow Gene in Response to the Calcineurin-NFAT Signal Transduction Pathway. Joshua M. Lang. Master's of Science Thesis Presentation. School of Kinesiology, University of Illinois at Chicago.
- 2008 Cancer Testis Antigens: Inducible Targets for Immunotherapy. Joshua M. Lang, Prostate Cancer Foundation Retreat, Lake Tahoe, NV.
- 2011 Restoration of Antigen Presentation Machinery by Epigenetic Modifying Agents. Joshua M. Lang. Prostate Cancer Foundation Retreat, Lake Tahoe, NV.
- 2012 Integrated Molecular Analysis of Circulating Tumor Cells: The Microfluidic VeriFAST Platform. Joshua M. Lang. 19th Annual Prostate Cancer Foundation Retreat, San Diego, CA.
- 2013 Circulating Biomarkers: Technology, Translation and Clinical Integration. Joshua M. Lang. Dana Farber Cancer Institute Seminars in Genitourinary Oncology. Boston, MA.
- 2014 Circulating Biomarkers: Technology, Translation and Clinical Integration. Joshua M. Lang. Cleveland Clinic Genitourinary Oncology Seminar. Cleveland, OH.
- 2015 Clinical and Translational Opportunities for Circulating Biomarkers. Joshua M. Lang. Molecular Medicine Tri-Con. San Francisco, CA.

- 2015 Clinical Integration of Predictive and Pharmacodynamic Circulating Tumor Cell Biomarkers. Joshua M. Lang, PittCon Annual Meeting. New Orleans, LA.
- 2015 The Next Generation of Clinical Research. 3rd Annual Coffey-Holden Prostate Cancer Academy Meeting. La Jolla, CA. June 26, 2015
- 2015 Molecular Imaging and the High Risk Patient. 3rd Annual Coffey-Holden Prostate Cancer Academy Meeting. La Jolla, CA.
- 2015 Multidisciplinary intervention of early, lethal metastatic prostate cancer: Report from the 2015 Coffey-Holden Prostate Cancer Academy Meeting. 22nd Annual Prostate Cancer Foundation Retreat, Washington DC.
- 2016 Clinical and Translational Opportunities for Circulating Biomarkers. Molecular Medicine Tri-Con. San Francisco, CA.
- 2016 Translational Biomarkers in Prostate Cancer: Engineering, Biology and Clinical Needs. University of Minnesota Department of Laboratory Medicine and Pathology Grand Rounds.
- 2016 Translational Biomarkers in Prostate Cancer: Intersection of Engineering, Biology and Clinical Care. National Cancer Institute-GU Malignancies Center of Excellence Seminar Series. Bethesda, MD.
- 2016 Orthogonal Endpoints in Circulating Tumor Cell Analysis. 4th Annual Coffey-Holden Prostate Cancer Academy Meeting. San Diego, CA.
- 2016 Contexts of Use for Circulating Tumor Cell Biomarkers in Solid Tumors. 8th Annual Next Generation Dx Summit. Washington D.C.
- 2016 Predictive and Pharmacodynamic Biomarkers for Prostate Cancer Clinical Trials. 8th Annual Next Generation Dx Summit. Washington D.C.
- 2016 Biomarker-Driven Contexts of Use for a Trop2 Antibody-Drug Conjugate in Prostate Cancer. 23rd Annual Prostate Cancer Foundation Retreat, Carlsbad, CA.
- 2016 Translational Biomarkers in Solid Tumors: Intersection of Engineering and Cancer Biology. Genitourinary Oncology Grand Rounds Memorial Sloan Kettering Cancer Center.
- 2016 Translational Biomarkers in Solid Tumors: Intersection of Engineering and Cancer Biology. Urology Grand Rounds Johns Hopkins University.
- 2017 Liquid Biopsies: Current Utility and Future Directions. American Society of Clinical Oncology Annual Meeting 2017. Chicago, IL.
- 2017 Dissecting the Prostate Tumor Microenvironment. Great Lakes International Imaging and Flow Cytometry Association Annual Meeting 2017. Madison, WI.
- 2017 Translational Biomarkers in Prostate Cancer: Moving Towards Precision Medicine. 2017 Uehling-Wear Lectures – Advancing the Treatment of Genitourinary Cancers. Madison, WI.
- 2017 Circulating Biomarkers in Renal Cell Carcinoma. 16th Annual Kidney Cancer Symposium. Miami, FL.
- 2018 Liquid Biopsies in Prostate Cancer: Hope, Hype and A Cry for Help. Prostate Cancer Committee. NIH Cancer Intervention and Surveillance Modeling Network Annual Meeting. Bethesda, MD.
- 2018 Liquid Biopsies in Solid Tumors. Plenary Session. NIH Cancer Intervention and Surveillance Modeling Network Annual Meeting. Bethesda, MD.
- 2018 Liquid Biopsies in Breast Cancer: Clinical and Modeling Opportunities. Breast Cancer Committee. NIH Cancer Intervention and Surveillance Modeling Network Annual Meeting. Bethesda, MD.

- 2019 Biomarker Driven Drug Development in Prostate Cancer. Medical College of Wisconsin Cancer Center Grand Rounds.
- 2019 Neoadjuvant Therapies in Prostate Cancer: 2019 Uehling-Wear Lectures – Advancing the Treatment of Genitourinary Cancers. Madison, WI.
- 2020 Next Generation Liquid Biopsies for Solid Tumors: Discovery, Development and Validation. Wilms Cancer Center Grand Rounds
- 2021 Integrating Molecular Analysis with Clinical Decision Making for Patients with Renal Cell Cancer. American Urologic Association Annual Meeting. Virtual
- 2022 Multi-plex Gene Expression Profiling of Circulating Tumor Cells Identifies Treatment Resistant Prostate Cancer. Molecular & Precision Med Tri-Con Annual Meeting
- 2022 Liquid Biopsies in Solid Tumors: Biomarker Drug Development and Clinical Validation. Grand Rounds. Weill Cornell Medicine. New York, NY.
- 2022 DNA to RNA to Protein: The Next Generation of Liquid Biopsies. Grand Rounds. Vanderbilt Ingram Cancer Center. Nashville, TN.
- 2022 Therapy-specific biomarker development and validation in mCRPC. International Society for Liquid Biopsy Annual Meeting.
- 2022 Therapy Specific Biomarker Development and Validation in mCRPC. Dana-Farber Cancer Institute Prostate SPORE Meeting
- 2022 Biomarker Results from Targeting TROP-2 with Sacituzumab Govitecan in mCRPC. Prostate Cancer Foundation Annual Retreat.
- 2023 Cellular Interactions in the Prostate Bone Microenvironment Drive Treatment Resistance. Gordon Conference on Hormone Dependent Cancers
- 2023 Disentangling Drivers of Treatment Resistance in Prostate Cancer Metastatic Niches. University of California-San Francisco. Benioff Center Prostate Cancer Seminar Series.
- 2023 Validation of predictive liquid biomarkers for patients with metastatic prostate cancer. National Cancer Institute Annual Assay Development Program Meeting
- 2023 Metastatic Niche and Treatment Resistance in Prostate Cancer. The Prostate Cancer Clinical Masterclass Series.
- 2023 Biomarkers for Treatment Resistant Disease: Experiences in Oncology. ASM/ESCMID Joint Conference on Drug Development to Meet the Challenge of Antimicrobial Resistance
- 2023 Molecular and Microenvironment Drivers of Treatment Resistance in Prostate Cancer. University of Texas Southwestern. Hamon Invited Lecture Series. Hamon Center for Therapeutic Oncology Research

Peer-reviewed Presentation

Local/UW

- 2018 Schehr JL, Pezzi HM, Guckenberger DJ, Niles DJ, Schultz ZS, Hernandez CI, Berry SM, Leal TA, Beebe DJ, Laffin JJ, **Lang JM**. The Circulating Biomarker Core (CBC): to translate circulating biomarker research methods for clinical trials and clinical grade assays. University of Wisconsin Carbone Cancer Center Research Retreat. Madison, WI. Apr 5, 2018.
- 2018 Schehr JL, Pezzi HM, Guckenberger DJ, Niles DJ, Schultz ZS, Hernandez CI, Berry SM, Leal TA, Beebe DJ, Laffin JJ, **Lang JM**. The

Circulating Biomarker Core (CBC): to translate circulating biomarker research methods for clinical trials and clinical grade assays. University of Wisconsin Carbone Cancer Center Badger Connect Research Services Fair. Madison, WI. May 3, 2018.

National

- 1999 **Lang JM**, Dineen BA, Esser KA. *In vivo* regulation of the myosin light chain 2 slow promoter in response to active calcineurin. American College of Sports Medicine 46th Annual Meeting, Seattle, WA, June 2, 1999.
- 2000 **Lang JM**, Swoap SJ, Hunter RB, Stevenson EJ, Felton HM, Kansagra NV, Esser KA, Kandarian SC. Effect of constitutively active calcineurin on muscle specific promoters in vitro and in vivo. Molecular Biology of Muscle Development and Disease Conference, Pacific Grove, CA, May 21, 2000
- 2002 **Lang JM**, Esser KA. Nerve dependent role for MEF2C regulation of the myosin light chain 2 slow promoter. Experimental Biology, New Orleans, LA, April 21, 2002.
- 2004 **Lang JM**, Esser KA. Slow nerve controls skeletal muscle phenotype via differential interaction of MEF2 isoforms and HDAC4. National Student Research Forum-Medicine, Galveston, TX, April 2, 2004.
- 2009 **Lang JM**, Eickhoff JC, Binkley N, Staab MJ, Liu G, Wilding G, McNeel DG. Phase II trial of zoledronic acid on bone mineral density in patients with stage D prostate cancer undergoing androgen ablation therapy. ASCO Genitourinary Cancers Symposium, Orlando, FL February 26, 2009.
- 2011 **Lang JM**, Staab MJ, Liu G, Wilding G, McNeel DG. Phase I dose escalation trial of tremelimumab in combination with bicalutamide in patients with recurrent prostate cancer. ASCO Genitourinary Cancers Symposium, Orlando, FL February 17, 2011. J Clin Oncol 29: 2011 (suppl 7; abstr 174).
- 2011 **Lang JM**, Eickhoff JC, Binkley N, Staab MJ, Liu G, Wilding G, McNeel DG. Randomized phase II trial evaluating different schedules of zoledronic acid administration on bone mineral density in patients with stage D prostate cancer beginning androgen deprivation. ASCO Annual Meeting, Chicago, IL June 5, 2011. J Clin Oncol 29: 2011 (suppl 20; abstr 4643).
- 2011 **Lang JM**, Thiede S, Byers B, McNeel DG. Enhanced expression of cancer-testis antigens in prostate cancer cell lines treated with epigenetic modifying agents. Society for the Immunotherapy of Cancer 26th Annual Meeting. Bethesda, MD. Nov 5, 2011.
- 2012 Casavant BP, Tokar J, Abel EJ, **Lang JM**, Beebe DJ. Isolation of renal cell carcinoma cells from blood samples using the vertical immiscible filtration assisted by surface tension (VerIFAST) microfluidic platform. Kidney Cancer Association Annual Meeting, Chicago, IL. October 5, 2012.
- 2013 Abel EJ, Tokar JT, Casavant BP, Strotman L, Beebe DJ, **Lang JM**. Isolation and analysis of circulating tumor cells in renal cell carcinoma as enabled by the VERSA. American Urological Association Annual Meeting, San Diego, CA May 3, 2013
- 2013 Thiede S, Tokar J, Casavant B, Strotman L, Sperger J, Beebe DJ, **Lang**

- JM.** Molecular analysis of antigen presentation machinery in circulating tumor cells from renal cell carcinoma and prostate cancer. Society for the Immunotherapy of Cancer Annual Meeting, National Harbor, MD, Nov 6, 2013.
- 2014 Gibbs B, Strotman L, Thiede SM, Sperger JM, Casavant BP, Berry SM, Beebe DJ, **Lang JM.** Development of an integrated analysis platform of circulating melanoma cells for PD-L1 expression as a predictive biomarker. American Association for Cancer Research Annual Meeting, San Diego, CA, April 9, 2014.
- 2014 Strotman L, Sperger JM, Casavant BP, Thiede SM, Berry SM, Beebe DJ, **Lang JM.** Molecular interrogation of the androgen receptor in circulating tumor cells to identify therapeutic resistance to androgen targeting therapies. American Association for Cancer Research Annual Meeting, San Diego, CA, April 9, 2014
- 2015 Welsh A, Frampton GM, Chalmers ZR, Sperger J, Yelensky R, Lipson D, Otto G, Strotman L, Berry S, Pezzi H, Traynor A, Beebe DJ, Miller VA, **Lang JM,** Stephens PJ. Development and validation of an NGS-based assay to detect all classes of genomic alterations in circulating tumor cells (CTCs) from patients with solid tumors. American Association for Cancer Research Annual Meeting, Philadelphia, PA, April 20, 2015
- 2015 Siu LL, De Bono J, Wisinski KB, Higano CS, Cook N, De Miguel Luken MJ, Kumar R, **Lang J,** Chatta GS, Tolaney SM, Symeonides SM, Morrison G, Mitchell PD, Brooks DG, Shapiro GI. Phase I study of the PI3K β/δ inhibitor AZD8186 in patients with advanced castration resistant prostate cancer, triple negative breast cancer, squamous non-small cell lung cancer or PTEN deficient solid tumors: update from dose-finding. American Association for Cancer Research Annual Meeting, Philadelphia, PA, April 21, 2015.
- 2015 Basu HS, Schrieber CL, Sperger, **Lang JM,** Naundorf M, Weichman AM, Mehraein-Ghomi F, Church DR, Lang JM, Wilding G. Mitophagy imparts enzalutamide resistance in prostate cancer. American Association for Cancer Research Annual Meeting, Philadelphia, PA, April 21, 2015.
- 2015 Sperger JM, Strotman L, Casavant BP, Pak C, Horn S, Heninger E, Berry SM, Beebe DJ, **Lang JM.** Predictive and pharmacodynamic biomarkers of the androgen receptor in circulating tumor cells. American Association for Cancer Research Annual Meeting, Philadelphia, PA, April 19, 2015.
- 2015 Heninger E, Krueger T, Thiede SM, Kosoff D, Byers B, Jarrard DF, McNeel DG, **Lang JM.** Inducible expression of antigen processing/presentation molecules and cancer testis antigens in human prostate cancer. Society for the Immunotherapy of Cancer Annual Meeting, National Harbor, MD, Nov 6, 2015.
- 2016 Schehr JL, Schultz Z, Saeed A, Sperger JM, Leal T, Mattox K, Traynor A, **Lang JM.** Androgen receptor expression in non-small cell lung cancer circulating tumor cells. American Association for Cancer Research Annual Meeting, New Orleans, LA, April 18, 2016.
- 2016 Desotelle JA, Pak C, Heninger E, Schehr JL, McKay RR, Gibbs BK, Norton C, Choueiri TK, **Lang JM.** Identification of circulating tumor cells from renal cell carcinoma patients by a multi-parameter flow cytometry assay. American Association for Cancer Research Annual Meeting, New Orleans, LA, April 19, 2016.
- 2016 Sperger JM, Heninger E, Schehr JL, Allen HEF, Singh A, **Lang JM.**

- Molecular heterogeneity in diverse prostate cancer circulating tumor cell subsets. American Association for Cancer Research Annual Meeting, New Orleans, LA, April 20, 2016.
- 2016 Rosenberg JE, Heath EI, Van Veldhuizen PJ, Merchan JR, **Lang JM**, Ruether JD, Petrylak DP, Sangha RS, Smith DC, Sridhar SS, Gartner EM, Vincent M, Chu R, Anand B, Donate F, Jackson L, Reyno LM, Zhang J. Anti-tumor activity, safety and pharmacokinetics (PK) of ASG-22CE (ASG-22ME; enfortumab vedotin) in a phase I dose escalation trial in patients (Pts) with metastatic urothelial cancer (mUC). American Society of Clinical Oncology Annual Meeting. Chicago, IL, June 6, 2016. J Clin Oncol 34, 2016 (suppl; abstr 4533).
- 2017 Kosoff D, Yu J, Schehr JL, Beebe DJ, **Lang JM**. Microscale engineering of the tumor microenvironment for therapeutic targeting of tumor-associated macrophages in prostate cancer. American Association for Cancer Research Annual Meeting, Washington DC, April 4, 2017.
- 2017 Sperger JM, Singh A, Ku K, Niles D, Stahfeld C, Beebe DJ, Zouebdi A, **Lang JM**. Expression of neuroendocrine markers in circulating tumor cells from patients with prostate cancer visceral metastases. American Association for Cancer Research Annual Meeting, Washington DC, April 4, 2017.
- 2017 Singh A, Sperger JM, Schehr J, Witkowski T, Weaver BA, Burkard ME, **Lang JM**. Expression of estrogen receptor specific signaling transcriptome in epithelial cell adhesion molecule (EpCAM) captured circulating tumor cells from patients with breast cancer. American Association for Cancer Research Annual Meeting, Washington DC, April 4, 2017.
- 2017 Arafat W, Stahfeld C, Sperger J, Heninger E, Gopalakrishnan D, Barata PC, Lamenza M, Devonshire S, Hoxha N, Profusek P, Rini BI, Ornstein MC, Garcia JA, Kyriakopoulos C, **Lang JM**, Grivas P. Intra-patient heterogeneity in urothelial cancer (UC) circulating tumor cells (CTC) and PDL1 expression to identify biomarkers of response and new therapeutic targets: A pilot study. American Society of Clinical Oncology Annual Meeting 2017. Chicago, IL. June 4, 2017.
- 2017 Arafat W, Desotelle J, Rodems T, McKay RR, Abel J, Choueiri TK, **Lang JM**. Development and Clinical Validation of Circulating Tumor Cell Biomarkers in clear cell Renal Cell Carcinoma for the OMNIVORE Clinical Trial. American Society of Clinical Oncology Annual Meeting 2017. Chicago, IL. June 4, 2017.
- 2017 Ku KP, Sperger JM, Dehm SM, Kohli M, Wang L, Wang L, Tagawa S, Scher HI, **Lang JM**. Trop-2 expression on treatment resistant cancer cells in castrate-resistant prostate cancer as a predictive biomarker for targeted therapy. American Society of Clinical Oncology Annual Meeting 2017. Chicago, IL. June 5, 2017.
- 2017 Petrylak DP, Perez RP, Zhang J, Smith DC, Ruether JD, Sridhar SS, Sangha RS, **Lang JM**, Heath EI, Merchan JR, Gartner EM, Chu R, Anand B, Doñate F, Jackson L, Adams J, Melhem-Bertrandt A, Rosenberg JE. A Phase I Study of Enfortumab Vedotin (ASG-22CE; ASG-22ME): Updated Analysis of Patients with Metastatic Urothelial Cancer. American Society of Clinical Oncology Annual Meeting 2017. Chicago, IL. June 5, 2017.
- 2019 Stahfeld CN, Tokar JJ, Quigley D, Niles D, Sperger JM, Feng F, **Lang JM**. Single cell capture and molecular analysis of live CTCs using

- integrated microwells and single cell aspirator. American Association of Clinical Research Annual Meeting 2019. Atlanta, GA. April 1, 2019.
- 2019 Sethakorn N, Heninger E, Sperger JM, Pienta M, Pienta KJ, **Lang JM**. An aberrant immunosuppressive signature within bone marrow may identify patients prone to recurrence of metastatic prostate cancer after prostatectomy. American Association for Cancer Research Annual Meeting 2019. Atlanta, GA. April 1, 2019.
- 2019 Sethakorn N, Yu J, Heninger E, Carlson K, Das R, Kosoff D, Galipeau J, Beebe D, **Lang JM**. Development of a microfluidic platform as an ex vivo model of the bone marrow microenvironment in metastatic prostate cancer. American Physician Scientist Association Annual Meeting 2019. Chicago, IL. April 6, 2019.
- 2019 Rodems TS, Gilsdorf C, Juang D, Gungurthi H, Carlson K, Heninger E, Beebe DJ, Haffner MC, **Lang JM**. Epigenetic Regulation of Class I Human Leukocyte Antigens (HLA I) in Prostate Cancer. Transcriptional Regulation in Evolution, Development and Disease Cell Symposia. Chicago, IL. October 20-22, 2019.
- 2019 Heninger E, Gungurthi H, Sethakorn N, Kosoff D, Carlson K, Kircher MR, Yang B, Jarrard DF, **Lang JM**. Inducible Expression of Antigen Processing and Antigen Presentation Molecules in Human Prostate Cancer. Autumn Immunology Conference 2019. Chicago, IL November 22, 2019.
- 2020 Schultz ZD, Schehr JL, Bade RM, Morgan MM, Gill MS, Pezzi HM, Sperger JM, Stahlfeld CN, Sing A, Warrick JW, Beebe DJ, **Lang JM**. Analytical validation and preliminary clinical utility of multi-analyte transcriptomic biomarker profiling of circulating tumor cells using automated exclusion-based sample preparation technology. American Association for Cancer Research Advances in Liquid Biopsies 2020. Miami, FL. Jan 13, 2020.
- 2020 Schehr JL, Schultz ZD, Hernandez CI, Mannino MC, Warrick JW, Leal TA, Beebe DJ, **Lang JM**. Analytical validation and preliminary clinical utility of PD-L1 and HLA I Expression profiling of circulating tumor cells using automated exclusion-based sample preparation technology. American Association for Cancer Research Advances in Liquid Biopsies 2020. Miami, FL. Jan 13, 2020. (Selected for podium presentation)
- 2020 Emamekhoo H, Schehr J, Bade R, Wei X, McKay R, Choueiri T, **Lang J**. Clinical correlation of circulating tumor cell (CTC) PD-L1 and HLA I expression in metastatic renal cell carcinoma (mRCC) using exclusion-based sample preparation technology. American Society of Clinical Oncology Genitourinary Cancers Symposium. San Francisco, CA. Feb 15, 2020.
- 2020 Kim E, Liu P, Zhang S, Wang Y, Schehr J, Wolfe S, Lu L, Rui L, Zhong X, Wisinski K, **Lang J**, Ong I, Xu W. BAF155 methylation drives metastasis by hijacking super-enhancers and is a targetable vulnerability in triple-negative breast cancer. American Association for Cancer Research Annual Meeting. San Diego, CA. Apr 24, 2020.
- 2021 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 Annual Meeting. Virtual. April 10, 2021.

- 2021 Stahlfeld C, Sperger J, Slovin SF, Tagawa ST, Kyriakopoulos C, Kohli M, Wang L, Wang L, Dehm S, **Lang JM**. TROP-2 Co-expression with Androgen Receptor Splice Variants as a New Therapeutic Target in Prostate Cancer. American Society of Clinical Oncology Meeting. Virtual. June 2021.
- 2022 Bade RM, Schehr JL, Mannino MC, Bootsma ML, Emamekhoo H, Zhao SG, Choueiri TK, Signoretti S, McKay RR, **Lang JM**. Identification of PD-L1 Expression on Circulating Tumor Cells as a Prognostic Indicator in Prospective Clinical Trial, OMNIVORE. American Association for Cancer Research Annual Meeting. New Orleans, LA and Virtual. April 8-13, 2022.
- 2022 Mannino MC, Kerr CP, Schehr JL, Zhao G, Morris ZS, **Lang JM**. Microfluidic Characterization of Circulating Tumor Cells from Mouse Models and Patients with Head and Neck Cancer. American Association for Cancer Research Annual Meeting. New Orleans, LA and Virtual. April 8-13, 2022.
- 2022 Sharifi MN, Helzer KT, Sperger JM, Bootsma ML, Krause H, Gilsdorf CS, Wolfe SK, Kauffman Z, Tevaarwerk AJ, 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 and Virtual. April 8-13, 2022.
- 2023 Stahlfeld C, Emamekhoo H, Kaufmann K, Grivas P, Ornstein M, Sheng I, Burkey C, Sperger J, Bade R, Schehr H, Taylor A, Shi Y, Zhao G, **Lang J**. Integrated liquid biopsies of metastatic bladder cancer are prognostic for survival. American Society of Clinical Oncology Genitourinary Cancers Symposium (ASCO GU). San Francisco, CA. February 16-18, 2023.
- 2023 Taylor AK, Sperger JM, Sharifi M, Shi Y, Stahlfeld C, Schehr JL, Kyriakopolous C, Emamekhoo H, Armstrong AJ, Wei XX, Taplin ME, McKay RR, Zhao SG, **Lang JM**. Detection of emergent Neuroendocrine Prostate Cancer in Liquid Biopsies Associates with inferior survival and treatment resistance. American Society of Clinical Oncology Genitourinary Cancers Symposium (ASCO GU). San Francisco, CA. February 16-18, 2023.
- 2023 Ding A, Kerr SC, Sanchez-de-Diego C, Yada RC, Heninger E, Sethakorn N, Reese S, Virumbrales-Muñoz M, Geiger P, Hazelberg X, **Lang JM**, Beebe DJ. Microscale modeling of the human prostate bone metastatic niche. American Association for Cancer Research (AACR) Special Conference - Advances in Prostate Cancer Research. Denver, CO. March 15-18, 2023.
- 2023 Kauffman Z, Koesser K, Helzer KT, Sperger JM, Sharifi MN, Li C, Juang DS, Gilsdorf CS, Zhao SG, Beebe DJ, **Lang JM**. Microscale analysis of histone modifications in rare cell populations in prostate cancer. American Association for Cancer Research (AACR) Special Conference - Advances in Prostate Cancer Research. Denver, CO. March 15-18, 2023.
- 2023 Sperger JM, Taylor AK, Shi Y, Stahlfeld CN, Helzer K, Bootsma M, Kaufmann K, Sharifi MN, Kyriakopolous CE, Slovin S, Tagawa S, Dehm S, Zhao SG, **Lang JM**. Liquid biopsy biomarker analysis of a phase II trial of Sacituzumab Govitecan in castrate resistant metastatic prostate cancer. American Association for Cancer Research (AACR) Special Conference - Advances in Prostate Cancer Research. Denver, CO.

- March 15-18, 2023.
- 2023 Meric-Bernstam F, Oaknin A, Janjigian Y, Ray-Coquard I, Oza A, Yonemori K, Ciombor KK, Xu R, **Lang J**, Gajavelli S, Filant J, Hovey T, Zhao JL. TROPION-PanTumor03: Phase 2, multicenter study of datopotamab deruxtecan (Dato-DXd) as monotherapy and in combination with anticancer agents in patients (pts) with advanced/metastatic solid tumors. American Association for Cancer Research (AACR) Annual Meeting Orlando, FL. April 14-19, 2023.
- 2023 Janjigian Y, Oaknin A, Lang J, Ciombor KK, Ray-Coquard I, Oza A, Yonemori K, Xu RH, Zhao JL, Gajavelli S, Filant J, Hovey T, Meric-Bernstam F. TROPION-PanTumor03: Phase 2, multicenter study of datopotamab deruxtecan (Dato-DXd) as monotherapy and in combination with anticancer agents in patients with advanced/metastatic solid tumors. American Society of Clinical Oncology (ASCO) Annual Meeting. Chicago, IL. June 2-6, 2023.
- 2023 Shin M, Tsourkas P, Bradshaw T, Kyriakopoulos C, Huang W, Jarrard D, **Lang J**, McIlwain SJ, Ong I, Wells S, Cho SY. Predictive Features of 18F-DCFPyL PSMA PET/MRI in High-Risk Prostate Cancer Patients Treated with Neoadjuvant Chemohormonal Therapy Prior to Radical Prostatectomy. Society of Nuclear Medicine & Molecular Imaging (SNMMI) Annual Meeting. Chicago, IL. June 24-27, 2023. *Submitted.*
- 2023 Morris BA, Sethakorn N, **Lang JM**, Schehr JL, Zhao SG, Morris ZS, Eickhoff JC, Traynor AM, Campbell TC, Baschnagel AM, Leal TA, Bassetti MF. Treatment Efficacy Outcomes Combining Dual Checkpoint Immunotherapy with Ablative Radiation to All Sites of Oligometastatic Non-Small Cell Lung Cancer: Survival Analysis of a Phase I Trial. American Society for Radiation Oncology (ASTRO) Annual Meeting. San Diego, CA. October 1-4, 2023.

International

- 2011 Smith HA, Cronk R, **Lang JM**, McNeel DG. Expression and immunotherapeutic targeting of the SSX family of cancer-testis antigens in prostate cancer. Second AACR International Conference on Frontiers in Basic Cancer Research. Sept 15, 2011.
- 2016 Rosenberg JE, Heath EI, Van Veldhuizen PJ, Merchan JR, **Lang JM**, Ruether JD, Petrylak DP, Sangha RS, Smith DC, Sridhar SS, Gartner EM, Vincent M, Chu R, Anand B, Donate F, Jackson L, Reyno LM, Zhang J. Interim analysis of a phase I dose escalation trial of ASG-22CE (ASG-22ME; enfortumab vedotin), an antibody drug conjugate (ADC), in patients (Pts) with metastatic urothelial cancer (mUC). European Society for Medical Oncology Annual Meeting. Copenhagen, Denmark, October 9, 2016. *Annals of Oncology* (2016) 27 (6): 266-295.
- 2018 Leal TA, Schehr JL, Campbell T, Traynor A, **Lang JM**. Identifying resistance to PD-L1 targeted therapy by screening for PD-L1 and MHC I expression on circulating tumor cells. International Association for the Study of Lung Cancer Latin America Conference on Lung Cancer. Cordoba, Argentina. Aug 15, 2018. (Selected for presentation)
- 2018 Leal TA, Schehr JL, Campbell T, Traynor A, **Lang JM**. Identifying resistance to PD-L1 targeted therapy by screening for PD-L1 and MHC I expression on circulating tumor cells. International Association for the

- Study of Lung Cancer World Conference on Lung Cancer. Toronto, Canada. Sep 23, 2018.
- 2019 Leal T, **Lang J**, Schehr J, Schneider K, Wheeler D, Malhotra J, Bertino E, Eickhoff J, Traynor A. A phase 2 study of MLN4924 (pevonedistat) in combination with carboplatin and paclitaxel in advanced NSCLC previously treated with immunotherapy. International Association for the Study of Lung Cancer World Conference on Lung Cancer. Barcelona, Spain. Sep 8, 2019.
- 2022 Millett R, Shafique M, Kim C, Malhotra J, Bertino E, Bootsma M, Schehr J, Eickhoff J, **Lang J**, Sethakorn N, Leal T. A Phase 2 Study of MLN4924 (Pevonedistat) in Combination with Carboplatin and Paclitaxel in Advanced NSCLC Previously Treated with Immunotherapy. World Conference on Lung Cancer. Vienna, Austria. August 6-9, 2022.
- 2022 Stewart TF, Gedrich R, Saha J, Chirnomas D, Edwards M, **Lang JM**. Real-world outcomes in patients (pts) with metastatic castration-resistant prostate cancer (mCRPC) and tumors with androgen receptor (AR) 878/875 mutations. European Society for Medical Oncology (ESMO) Congress 2022. Paris, France and Virtual. September 9-13, 2022.
- 2022 **Lang JM**, Tagawa ST, Slovin S, Emamekhoo H, Rathkopf D, Abida W, Autio K, Xiao H, Molina A, Eickhoff J, Sperger J, Dehm SM, Nanus DM, Kyriakopoulos CE. Interim Results of a Phase II Trial of Sacituzumab Govitecan (SG) in Patients (Pts) with Metastatic Castration Resistant Prostate Cancer (mCRPC) Progressing on Androgen Receptor Signaling Inhibitors (ARSI). European Society for Medical Oncology (ESMO) Congress 2022. Paris, France and Virtual. September 9-13, 2022.

Research Presentation to Disseminate Research Finding to the Community

- 2021 NCCN Prostate Cancer Educational Series, NCCN Patient Webinar, May 19, 2021. Virtual
- 2021 NCCN Prostate Cancer Therapeutics, NCCN Tumor Board Webinar, July 21, 2021. Virtual
- 2022 Prostate Cancer Screening. Advocate Aurora Cancer Screening Seminar. Oct 11, 2022. Virtual.

Research Support

Research support prior to promotion to Associate Professor are in gray.

Current Federal Awards

Source: NIH/NCI: P50CA269011
 Title: University of Wisconsin Prostate SPORE
 Amount: \$7,190,205
 Years: 2023-2028
 PI: David Jarrard, MD, Douglas McNeel, MD, PhD
 Effort: 12.5%
 Role: Project Co-Leader and Career Enhancement Program Co-Leader
 Summary: The broad objectives of this SPORE are to: 1) Increase multidisciplinary translational research and develop the next generation of prostate cancer researchers, 2) Develop common resources to promote advances, 3) Translate promising new approaches into patients, and 4) Improve overall survival and quality of life for patients with prostate cancer.

Source: NIH/NCI: P30CA013420
Title: UW Comprehensive Cancer Center Support Grant
Amount: \$18,250,400
Years: 2023-2028
PI: Howard Bailey, MD
Effort: 10%
Role: Scientific Program Co-Leader and Shared Resource Faculty Director
Summary The UWCCC will reduce the burden of cancer for our patients, our catchment area and beyond through the following specific aims: 1) Increase the level and impact of basic, translational, clinical, and population-based cancer research, especially in priority areas of imaging, biomarkers, innovative interventions and population-based research, for timely benefit to our catchment and beyond; 2) Continue to build and improve the necessary Cancer Center infrastructure and research platform to meet the needs of our membership and to encourage mentorship of the next generation of cancer care providers, researchers, and educators; 3) Increase mission-related cancer resources; 4) Expand and enhance partnerships with communities across the university, state, nation and world.

Source: NIH/NCI: R01CA276269
Title: Molecular regulation and expression of Trop-2 in advanced prostate cancer: Identifying optimal therapeutic niches-Scored 2nd percentile
Amount: \$3,970,346
Years: 2023-2028
PI: Joshua Lang, MD, MS, Scott Dehm, PhD, Felix Feng, MD, PhD
Effort: 10%
Role: PI
Summary As highly effective, though non-curative, therapies for metastatic prostate cancer are now being used in earlier stages of disease, there is a critical need for new treatments in castrate resistant prostate cancer (mCRPC). We have identified Trop-2 as a high value target that can be expressed in treatment resistant prostate cancer. We will study biomarkers of Trop-2 in a clinical trial for men with mCRPC with an antibody drug conjugate that targets Trop-2. Integrated blood and tumor biopsies will be analyzed to identify novel predictive biomarkers.

Source: DOD/PCRP PC220240
Title: Interrogating the intersection of PSMA and PI3K pathway signaling as a novel treatment approach in treatment-resistant prostate cancer
Amount: \$1,166,252
Years: 2023-2027
PI: Marina Sharifi, MD, PhD
Effort: 0%
Role: Mentor
Summary This award will support Dr. Sharifi in testing the hypothesis that PI3K pathway activity can be quantified in a comprehensive liquid biopsy to support biomarker identification and drug development in metastatic prostate cancer, and that crosstalk between PI3K signaling and PSMA expression impacts response to both PI3K and PSMA targeted therapies.

This will be achieved through the following Specific Aims: Aim 1: Identify how PI3K pathway mutation status affects PI3K signaling and PSMA expression in metastatic prostate cancer liquid biopsies. Aim 2: Identify how PI3K pathway inhibition affects PI3K signaling and PSMA expression in metastatic prostate cancer. Aim 3: Identify the role of PI3K signaling in response to PSMA targeted therapy in metastatic prostate cancer.

Source:	NIH/NCI: 1R37CA264518 - 01A1
Title:	Disrupting the Prostate Tumor Microenvironment in African American Men to Promote Response to Immuno-Modulatory Therapy
Amount:	\$500,000
Years:	2023-2027
PI:	Kosj Yamoah, MD (Moffitt)
Effort:	5%
Role:	Co-Investigator, Local PI
Summary	Racial disparities remain prevalent in prostate cancer leading to large differences in incidence and clinical outcomes, with African American men (AAM) experiencing the highest burden of these disparities. Emerging evidence suggests that there are significant immune-oncologic differences in the prostate tumor immune microenvironment (TIME) of AAM compared to European-American men. This proposal seeks to functionally characterize the TIME differences by race and determine the effect on response to immune modulators, thus opening avenues to identify new therapeutic approaches to improve outcomes in AAM with PCa.
Source:	Department of Defense Prostate Cancer Research Program: Translational Science Award PC210122: W81XWH2210830
Title:	Liquid Biomarkers of Response and Resistance to 177Lu-PSMA
Amount:	\$750,000
Years:	2022-2025
PI:	Shuang "George" Zhao, MD
Effort:	5%
Role:	Co-Investigator
Summary	Our objective is to use our integrated liquid biopsy platform to simultaneously test diverse hypothesized biomarkers and discover new biomarkers of response and resistance to 177Lu-PSMA to guide the selection and timing of therapy.
Source:	NIH/NCI UH2/UH3: UH2CA260389
Title:	Validation of predictive liquid biomarkers for patients with metastatic prostate cancer
Amount:	\$1,250,000
Years:	2021-2026
PI:	Joshua M. Lang, MD, MS, Andrew Armstrong, MD, Susan Halabi, PhD, Dana Rathkopf, MD
Effort:	10%
Role:	PI
Summary	Recent studies have found that expression of the androgen receptor splice variant 7 in circulating tumor cells can identify resistance to hormone therapies in approximately 10% men with prostate cancer. We

have developed a new test that builds upon this assay to identify other patients at risk for resistance to these therapies. This proposal validates this new assay to move us closer to the goal of achieving better precision in treating patients.

Source: NIH/NCI: X02-U01CA257638
Title: Quantifying and Personalizing the Clinical Benefit of Metastasis-Directed Therapy in Men with De Novo Oligometastatic Prostate Cancer
Amount: \$554,147
Years: 2021-2025
PI: Daniel Spratt, MD (Case Western Reserve)
Effort: 5%
Role: Co-Investigator, Local PI
Summary: In this application, we propose to conduct the first large phase 3 PCa trial assessing the clinical impact of MDT for men with newly diagnosed oligometastatic PCa (Aim 1). This proposal is highly innovative as it leverages numerous other countries to conduct a definitive large trial, while allowing a sufficiently large North American sub-study to address important unmet needs, namely, can we use conventional or molecular imaging (Aim 2), or tissue or liquid-based molecular genomics (Aim 3), to predict which men derive the most benefit from MDT. To develop predictive biomarkers, this requires a randomized trial, and we have carefully designed this proposal to be able to enable rapid translation and clinical adoption of our findings. Our goal is to identify which subset of men with oligometastatic PCa we can potentially cure with MDT, and how to transform and personalize the current treatment paradigm for this important patient population.

Source: Department of Defense Prostate Cancer Research Program: Translational Science Award PC200334: W81XWH2110204
Title: Comprehensive Liquid Biomarker for Predicting Early Resistance to Androgen Receptor Signaling Inhibitors in Metastatic Prostate Cancer
Amount: \$1,000,000
Years: 2021-2024
PI: Joshua Lang, MD, MS, Shuang "George" Zhao
Effort: 10%
Role: PI
Summary: This proposal seeks to develop a new understanding of the biologic drivers of ARSI resistance. Success in these studies will contribute to a new understanding of the biology of prostate cancer immune evasion while simultaneously developing a "personalized medicine" approach to identify therapies most likely to benefit patients based on liquid biopsy signatures that can further guide the development of new therapies that target these resistance mechanisms.

Source: NIH/NCI UG3/UH3: UH3CA260692
Title: Mechanisms of microenvironment mediated resistance to cancer cell surface targeted therapeutics
Amount: \$2,500,000
Years: 2020-2025
PI: David Beebe, PhD, Joshua Lang, MD, MS

Effort: 10%
 Role: MPI
 Summary: There is a critical unmet need for improved models to enable more effective clinical trial design. This proposal will test the utility of a bone marrow tissue chip to identify patients with metastatic castrate resistant prostate cancer most likely to have a response to a candidate new cell surface targeted therapeutic agent currently in Phase II/III clinical trials.

Source: NIH/NCI R01: R01CA247479
 Title: Enhancing Epigenetic Analysis of Rare Cells with Multi-Phase Microfluidics – 4th percentile
 Amount: \$2,074,991
 Years: 2020-2025
 PI: David Beebe, PhD, Joshua Lang, MD, MS
 Effort: 5%
 Role: MPI
 Summary: Epigenetic alterations have been identified as playing a critical role in the development and progression of cancer. Current epigenetic assays require large numbers of cells (thousands to millions) with limited capability to analyze rare cells or tumor heterogeneity. This proposal seeks to develop new microfluidic technologies to evaluate epigenetic alterations in rare cells that can be used to improve our understanding of cancer, develop new therapeutic interventions and support biomarker development.

Source: Department of Defense Prostate Cancer Research Program:
 PCRP-CCA PC210120: W81XWH2220014
 Title: Prostate Cancer Clinical Trial Consortium
 Amount: \$1,865,640
 Years: 2022-2026
 PI: Glenn Liu, MD, University of Wisconsin-Madison
 Effort: 5%
 Role: Co-Investigator
 Summary: Major Aims: 1) Drug discovery/development: To develop novel agents/approaches for therapeutic investigation in men with advanced prostate cancer. 2) Imaging: To develop and use advanced imaging technology/ methodology to increase prostate cancer drug development efficiency and improve clinical decision-making. 3) Biomarkers: To develop new biomarkers tools that will enhance biologic understanding of treatment response and resistance. 4) Immunotherapy: To develop novel immunotherapeutic approaches to treat advanced prostate cancer as well as monitor immune response.

Current Non-Federal Awards
 Source: Prostate Cancer Foundation Challenge Award: 17CHAL05
 Title: Biomarkers of Therapeutic Response and Resistance to a Trop-2 Antibody Drug Conjugate for Men with Metastatic Prostate Cancer
 Amount: \$1,000,000
 Years: 2017-2023
 PI: Joshua Lang, MD, MS, Scott Dehm, PhD, Howard Scher, MD
 Effort: 10%

Role: PI
Summary We propose to evaluate blood and tumor biopsies from men with metastatic prostate cancer to evaluate the frequency of Trop-2 expressing tumor cells across different clinical states. We will utilize this data to define the optimal patient populations that may benefit from IMMU-132 or other Trop-2 targeted therapies. On the strength of our preliminary data, we next propose a multi-institution, clinical trial of IMMU-132 for men with metastatic CRPC to be conducted through the DOD Prostate Cancer Clinical Trials Consortium. Matched blood and tumor biopsies will be analyzed for Trop-2 expressing tumor cells and correlated with clinical response. This paired analysis of tumor biopsies and circulating tumor cell biomarkers will further define the optimal patient population for larger, prospective trials while simultaneously evaluating biologic drivers of prostate cancer progression and resistance.

Source: University of Wisconsin Department of Medicine Investigator Initiated Pilot
Title: Identifying Biomarkers of Response and Resistance to a Sacituzumab Govitecan in mCRPC

Amount: \$50,000
Years: 2023-2023
PI: Joshua Lang, MD, MS
Effort: 0%
Role: PI

Summary We propose to take serial liquid biopsies from both an institutional prospective cohort as well as an expanded multi-arm phase II SG clinical trial to investigate liquid biomarkers of response and resistance to SG. Aims: 1) Identify liquid biomarkers predicting response to the Trop2-ADC SG in mCRPC; 2) Understand the evolution and acquired resistance mechanisms to the Trop2-ADC SG in mCRPC; 3) Investigate the role of single-cell heterogeneity on response and resistance to the Trop2-ADC SG

Major Past Federal Awards

Source: Department of Defense Prostate Cancer Research Program:
IDEA Award PC180469: W81XWH1910164
Title: Single Cell Heterogeneity of BRCA Reversion Mutations in CRPC
Amount: \$600,000
Years: 2019-2023
PI: Joshua Lang, MD, MS, Felix Feng, MD, PhD, University of California-San Francisco

Effort: 10%
Role: PI

Summary The overarching goal for the proposed platform is to facilitate high-content analyses of heterogeneous cell populations as novel predictive and pharmacodynamic biomarkers to guide patient care. Given the potential clinical relevance of CTCs that do not express traditional markers (e.g., EpCAM) in the development of metastatic/resistant disease, this platform holds great promise to compare the underlying genomic/transcriptomic profiles between these CTC populations. Furthermore, the ability to perform combinations of protein analysis transcriptional analysis, and genomic profiling will enable comprehensive interrogation of mechanisms

of therapeutic response and resistance. This work is specifically geared towards developing robust workflows and assays to move these quantitative CTC assessments towards CLIA certification and FDA biomarker qualification studies. The investigators in this proposal further have the skill set needed to advance the findings from this proposal into novel clinical trial strategies for men with prostate cancer.

Source: NIH UM1CA186716-01-in NCE
Title: Wisconsin and New Jersey Alliance in Precision Experimental Therapeutics
Amount: \$722,316
Years: 2014-2022
PI: Glenn Liu, MD
Effort: 5%
Role: Co-Investigator
Summary: NCI early phase clinical trial network responsible for funding new Phase I clinical trials conducted at UW.

Source: NIH UM1CA186716-01-Biomarker Supplement
Title: Wisconsin and New Jersey Alliance in Precision Experimental Therapeutics
Amount: \$90,000
Years: 2019-2020
PI: Joshua Lang, MD
Effort: N/A
Role: PI
Summary: Aim 1 –To evaluate γ H2AX and RAD51 expression in CTCs before treatment with carboplatin, paclitaxel and pevonedistat from patients enrolled in a Phase II trial. Aim 2 –To evaluate γ H2AX and RAD51 expression in CTCs as a pharmacodynamic biomarker of response and resistance during treatment with carboplatin, paclitaxel and pevonedistat.

Source: NIH SBIR
Title: Getting More from Less: Multi-omic Capture and Analysis from Patient Samples
Amount: \$394,171
Years: 2016-2021
PI: Salus, LLC
Effort: 5%
Role: Academic PI
Summary: The goal of this proposal is to provide an assay capable of obtaining more comprehensive information about individual patients in order to provide the most effective therapy. Our approach will provide multiple orthogonal endpoints to improve the clinicians ability to match treatment to patient.

Source: Department of Defense Prostate Cancer Research Program:
IMPACT Award PC150536: W81XWH1610511
Title: Functional and Molecular Diversity in the Tumor Microenvironment Underlies Therapeutic Response and Resistance
Amount: \$1,998,945
Years: 2016-2021

PI: Joshua Lang, MD, MS
Effort: 5%
Role: PI
Summary: In this proposal, we seek to simultaneously evaluate complex, intersecting pathways of resistance in men with newly diagnosed prostate cancer treated with chemohormonal therapy. We'll identify and dissect primary prostate cancer for tumor, stroma and immune compartments. The incredible sensitivity of our microscale technologies permits high content molecular analysis across all compartments for AR and DNA repair pathway mutations as well as the impact of DDSF from stroma on tumor and immune function. We further embed discovery efforts for acquired genomic alterations and functional changes in stroma and immune compartments to identify novel strategies to treat men with progressive PCa after chemohormonal therapy. While we utilize cutting edge technologies for these efforts, we integrate established assays (Genomic sequencing, PSMA PET/MRI) that will further speed translation of these results to CLIA certified environments and broad dissemination in the clinical community.

Source: Department of Defense Breast Cancer Research Program:
Breakthrough Award-BC150425: W81XWH1610049
Title: Chromosomal instability as a determinant of paclitaxel sensitivity in breast cancer
Amount: \$784,611
Years: 2016-2019
PI: Beth Weaver, PhD
Effort: 3%
Role: Co-Investigator
Summary: Aim 1 will utilize cell culture and animal models to test which types of CIN – and which antimetabolic drugs – sensitize breast cells to paclitaxel. Aim 2 will utilize fresh and fixed tissue from pre-treatment biopsies of breast cancer patients to define the types of CIN that occur in breast cancer and determine whether the CIN status of tumors prior to therapy predicts their sensitivity to paclitaxel. It will also develop a statistical model incorporating CIN and proliferation to predict paclitaxel sensitivity. Aim 3 will utilize Circulating Tumor Cells (CTCs) to identify mechanisms of acquired resistance to paclitaxel in metastatic breast cancer.

Source: Department of Defense Prostate Cancer Research Program:
Synergistic Idea Development Award PC140746: W81XWH-15-1-0501
Title: Androgen Receptor Gene Rearrangements in EpCAM-Positive and – Negative Circulating Tumor Cells: Biomarkers for Castrate-Resistant Prostate Cancer
Amount: \$750,000
Years: 2015-2018
PI: Joshua Lang, MD, MS, Scott Dehm, PhD
Effort: 10%
Role: PI
Summary: The overarching goal of this project is to compare paired genomic and transcriptomic profile of EpCAM positive and negative CTCs for AR pathway alterations as potential biomarkers of resistance to AR signaling

inhibitors.

Source: NIH/NCI R01: 5R01CA181648-05
 Title: VERSA: An Integrated, Multi-Endpoint Platform for Circulating Tumor Cell Analysis
 Amount: \$1,037,500
 Years: 2014-2019
 PI: Joshua Lang, MD, MS
 Effort: 10%
 Role: PI
 Summary: Personalizing cancer therapies to each individual requires easy access to tumor samples for the same tests performed on biopsies. This proposal will optimize a new device to capture tumor cells from a simple blood draw to test protein, genomic and gene expression factors of tumor cells without the need for a biopsy. This device will allow us to test tumor cells for sensitivity to anti-cancer drugs and understand how these tumor cells become resistant to these same treatments. Success with this proposal will provide a new tool to deliver precision medical therapy for patients with advanced cancer.

Source: Department of Defense Prostate Cancer Research Program:
 Physician Research Training Award: W81XWH-12-1-0052
 Title: Promotion of Anti-Tumor Immune Responses with Epigenetic Modifying Agents
 Amount: \$649,890
 Years: 2012-2017
 PI: Joshua Lang, MD, MS
 Effort: 60%
 Role: PI
 Summary: The Training Aim of this proposal is designed to provide formal training in both the conduct of clinical research as well as bench research in the fields of tumor immunology and microfluidics. The proposed studies in Research Aim 1 will characterize the impact of histone deacetylase inhibitors and hypomethylating agents, alone or in combination, on antigen presentation machinery from prostate tumor cell lines. In Research Aim 2, the impact of these agents on CD8+ T-cell mediated anti-tumor responses will be studied.

Source: NIH/NCI T32 Postdoctoral Training Award Title:
 Amount: Physician Scientist Training in Cancer Medicine
 Years: 2009-2012
 PI: Douglas McNeel, MD, PhD
 Effort: 95%
 Role: Trainee
 Summary: Postdoctoral training grant that funded my salary with a stipend for educational activities/coursework.

Major Past Non-Federal Awards

Source: Prostate Cancer Foundation Challenge Award: 19CHAL12
 Title: Discovering drivers of treatment response and resistance in the multi-focal prostate tumor environment

Amount: \$700,000
 Years: 2020-2022
 Co-PI: Joshua Lang, MD, MS, Felix Feng MD, PhD, Steve Cho, MD, PhD, David Jarrard, MD, PhD, David Beebe, PhD
 Effort: 10%
 Role: PI
 Summary: Our overarching goal is to quantify the multi-compartment interactions that give rise to multi-focal, treatment resistant PCA by integrating radiomic, genomic, and transcriptomic signatures from tumor, immune and stromal compartments. These data sets will 1) Identify men who most benefit from early aggressive therapy; 2) Develop novel curative strategies for men with high-risk prostate cancer; and 3) identify new biomarker classes for multifocal PCa. To achieve these ends, we employ a novel radio-pathologic analysis of multi-focal prostate cancer that integrates PSMA PET/MRI scans with 3-dimensional molds to dissect prostatectomy specimens based on imaging results. This technology is used in a trial for men with high-risk M0 or limited M1 prostate cancer at the University of Wisconsin Carbone Cancer Center (UWCCC). Patients on this trial undergo 18F-DCFPyL (DCFPyL) PSMA PET/MRI scans to quantify disease burden before and after both chemohormonal therapy and prostatectomy/regional lymph node dissection²²⁻²⁵. PSMA PET/MRI directed dissection of prostatectomy specimens, across responding and progressing lesions, is performed using 3D molds to isolate tumor and stromal compartments. Tumor, stromal and immune compartments from responding and resistant lesions are isolated for multi-endpoint molecular analyses.

Source: Wisconsin Partnership Program New Investigator Program
 Title: Metabolic Priming Triple-Negative Breast Cancer to Proapoptotic Therapy
 Amount: \$500,000
 Years: 2016-2021
 PI: Vincent Cryns, MD
 Effort: 3%
 Role: Co-Investigator
 Summary: Development and testing of a Circulating Tumor Cell Biomarker for a novel metabolic therapy to induce apoptosis in triple negative breast cancer.

Source: Prostate Cancer Foundation Challenge Award
 Title: Disseminated Tumor Cells in Localized Prostate Cancer
 Amount: \$1,000,000
 Years: 2016-2020
 PI: Ken Pienta, MD (JHU)
 Effort: 5%
 Role: Co-Investigator
 Summary: In this application, we will: 1) Determine the true incidence of disseminated prostate cancer cells in blood and bone marrow at the time of RP; 2) Study the heterogeneity of disseminated tumor cells and compare CTCs/DTCs to primary prostate cancer cells; 3) Determine the molecular/genomic relationships between DTCs and tumor metastases and assess their utility in defining prostate cancer subtypes for clinical

treatment stratification; and 4) Study the relationship of CTCs/DTCs to the host immune profile of patients at the time of RP.

Source: University of Wisconsin Carbone Cancer Center Investigator Initiated Pilot Grant
 Title: Genomic Analysis of Circulating Biomarkers in Pancreas and Prostate Cancers: Accessing Tumors for Personalized Medicine
 Amount: \$50,000
 Years: 2014-2015
 PI: Sam Lubner, MD
 Effort: 1%
 Role: Co-Investigator
 Summary: Development of new liquid biopsy assays in pancreas and prostate cancer.

Source: Movember-Prostate Cancer Foundation Challenge Award
 Title: Grant: Biomarkers of Therapeutic Response and Resistance to Androgen Receptor Signaling Inhibitors
 Amount: \$1,500,000
 Years: 2013-2018
 PI: Joshua Lang, MD, MS
 Effort: 5%
 Role: PI
 Summary: The overall goal of our Approach is to validate the integrated VERSA platform to perform CTC capture and purification followed by high content AR analysis for clinical research and patient care. Aim 1 will focus on automation and clinical validation of the VERSA platform for the AR assay to deploy this technology in the clinical setting. Aim 2 will validate AR nuclear localization in CTCs as a pharmacodynamic biomarker of therapeutic response and resistance in a prospective, multi-site clinical trial in patients treated with AR Signaling Inhibitors. Aim 3 will utilize the VERSA to extract nucleic acids from CTCs at the time of study enrollment and on disease progression for DNA and mRNA analysis.

Source: Wisconsin Partnership Program New Investigator Program
 Title: Circulating Tumor Cells in Renal Cell Carcinoma: Biomarkers for - Personalized Medicine
 Amount: \$99,963
 Years: 2013-2015
 PI: Joshua Lang, MD, MS
 Effort: 1%
 Role: PI
 Summary: Development of renal cell carcinoma biomarkers to identify resistance to anti-angiogenic therapies.

Source: UW Institute for Clinical and Translational Research-Type 1 Research Pilot Awards Program
 Title: Genomic Studies of Circulating Tumor Cells: Novel Metastatic Biomarkers
 Amount: \$50,000
 Years: 2013-2014
 PI: Joshua Lang, MD, MS

Effort: 1%
Role: PI
Summary Technology development for extraction of nucleic acids from circulating tumor cells.

Source: University of Wisconsin Carbone Cancer Center Investigator Initiated Pilot Grant

Title: Understanding Lung Cancer Cell and Lung Stromal Cell Heterogeneity Using Microfluidics and Human Bronchoalveolar Lavage Cells

Amount: \$50,000

Years: 2013-2014

PI: J. Scott Ferguson MD

Effort: 1%

Role: Co-Investigator

Summary To improve sensitivity to isolate tumor cells from lavage samples with microfluidic cell capture technology.

Source: Prostate Cancer Foundation Young Investigator Award

Title: Promotion of Anti-Tumor Immune Responses with Epigenetic Modifying Agents

Amount: \$225,000

Years: 2010-2014

PI: Joshua Lang, MD, MS

Effort: 10%

Role: PI

Summary To evaluate epigenetic alterations that contribute to resistance to immunotherapies in prostate cancer.

Pending Proposals

Source: Prostate Cancer Foundation

Title: Liquid biomarkers in the prospective ARSHI Resistance Clinical Trial across Institutions in CRPC (ARCTIC)

Amount: \$1,000,000

Years: 2023-2025

PI: Shuang "George" Zhao, MD, Joshua Lang, MD, MS (MPI)

Effort: 5%

Role: Co-PI

Summary We propose to use clinical-grade sequencing to create a clinical liquid biomarker platform which can be used to better understand and detect ARSI resistance through validating DNA alterations as ARSI resistance mechanisms in the ARCTIC trial, validating RNA alterations as ARSI resistance mechanisms in the ARCTIC trial, and validate DNA methylation alterations as ARSI resistance mechanisms in the ARCTIC trial.

Source: NIH/NCI UH2/UH3 Continuation

Title: Validation of predictive liquid biomarkers for patients with metastatic prostate cancer

Amount: \$1,250,000

Years: 2021-2026

PI: Joshua M. Lang, MD, MS, Andrew Armstrong, MD, Susan Halabi, PhD,

Dana Rathkopf, MD

Effort: 10%
Role: PI
Summary: Recent studies have found that expression of the androgen receptor splice variant 7 in circulating tumor cells can identify resistance to hormone therapies in approximately 10% men with prostate cancer. We have developed a new test that builds upon this assay to identify other patients at risk for resistance to these therapies. This proposal validates this new assay to move us closer to the goal of achieving better precision in treating patients.

Source: Department of Defense Prostate Cancer Research Program: Idea Development Award: FP00000429
Title: A Plasma PSMA Protein Biomarker for Prostate Cancer
Amount: \$900,000
Years: 2024-2027
PI: Shuang "George" Zhao, MD
Effort: 5%
Role: Co-Investigator
Summary: We propose to investigate biomarkers in CHARTED 2. Aim 1: Investigate plasma PSMA as a diagnostic biomarker to detect prostate cancer. Aim 2: Investigate plasma PSMA compared to PSMA PET imaging and theranostics. Aim 3: Understand tumor heterogeneity effects on plasma PSMA using CTCs

Source: Department of Defense Prostate Cancer Research Program: Idea Development Award: PC230337
Title: PARP – Cell Cycle Cross-talk in Prostate Cancer
Amount: \$310,998
Years: 2024-2027
PI: Matthew Schiewer, PhD (Thomas Jefferson University)
Effort: 5%
Role: Co-Investigator
Summary: We propose to better understand the molecular mechanisms that regulate the function of PARPs and to define a novel biomarker of response to combined PARP inhibition and drugs targeting male hormone signaling. Aim 1: Define the mechanism by which cell proliferation deregulation leads to elevated PARP function, and the downstream consequences of the combined change in proliferation and PARP signaling. Aim 2: Evaluate the impact of deregulated cell cycle on the response to the combination of PARP inhibitors and drugs that target male hormone signaling.

Source: Department of Defense Prostate Cancer Research Program: Translational Science Award: MSN278696
Title: Therapeutic targeting of non-canonical WNT5A signaling in metastatic prostate cancer
Amount: \$155,000
Years: 2024-2027
PI: Christina Jamieson, PhD (UCSD)
Effort: 2%

Role: Co-Investigator
 Summary We propose to seek to understand therapeutic targeting of non-canonical WNT5A signaling in metastatic prostate cancer. The Lang lab will process liquid biopsy samples and perform analysis from whole blood samples collected as part of a clinical trial to understand mechanisms of response and resistance.

Clinical Trials

Source: NRG Oncology
 Title: NRG-GU012: Randomized Phase II Stereotactic Ablative Radiation Therapy (SABR) For Metastatic Unresected Renal Cell Carcinoma Receiving Immunotherapy (SAMURAI)
 Amount: N/A
 Years: 2023-Present
 PI: Rana McKay, MD and William Hall, MD
 Effort: N/A
 Role: Translational PI
 Summary This trial seeks to determine whether the addition of stereotactic ablative radiotherapy (SABR) to the primary tumor in combination with immunotherapy improves outcomes compared to immunotherapy alone in patients with metastatic, unresected, renal cell carcinoma (RCC). The primary endpoint is nephrectomy and radiographic progression-free survival (nrPFS) with progression determined as per iRECIST criteria.

Source: University of Wisconsin Carbone Cancer Center, Immunomedics
 Title: A Single-arm, Phase 2 Study to Evaluate the Safety and Efficacy of IMMU-132 in Patients with Metastatic Castration-Resistant Prostate Cancer Who Have Progressed on Second Generation AR-Directed Therapy
 Amount: N/A
 Years: 2018-Present
 PI: Joshua Lang, MD, MS
 Effort: N/A
 Role: National Principal Investigator and Circulating Tumor Cell Biomarker Laboratory
 Summary This study will investigate the safety and efficacy of IMMU-132 in patients progressing on abiraterone or enzalutamide. To better understand the heterogeneity of response and in particular to identify patients likely to benefit, an extensive correlative biomarker program will be included to collect and analyze tumor tissue biopsies, circulating tumor cells (CTCs), and circulating tumor DNA (ctDNA).

Source: Exact Sciences
 Title: Blood Sample Collection to Evaluate Biomarkers in Subjects with Untreated Solid Tumors
 Amount: N/A
 Years: 2019-Present
 PI: Joshua Lang, MD, MS
 Effort: N/A
 Role: PI

Summary The primary objective of this study is to obtain de-identified, clinically characterized, whole blood specimens from subjects with untreated solid tumors to evaluate biomarkers associated with cancer as potential targets for diagnostic assays and to support subsequent assay development activities.

Source: Exact Sciences
Title: Sample Collection Study to Evaluate Biomarkers Related to Cancer
Amount: N/A
Years: 2020-Present
PI: Joshua Lang, MD, MS
Effort: N/A
Role: PI

Summary The primary objective of this study is to obtain de-identified, clinically characterized, whole blood, stool, and/or tissue specimens from subjects with cancer, suspicion of cancer, or at risk for developing cancer to evaluate biomarkers that may be associated with cancer, including tumor burden and/or tumor characteristics and to support subsequent assay development activities.

Source: University of Wisconsin Carbone Cancer Center, Department of Defense
Title: Pilot Neoadjuvant Trial of Chemohormonal Therapy Followed by Prostatectomy in Patients with High Risk and Oligometastatic Prostate Cancer

Amount: N/A
Years: 2017-Present
PI: Christos Kyriakopoulos, MD
Effort: Not Available
Role: Site Co-Investigator and Biomarker Laboratory

Summary Evaluate the pathologic complete response (pCR) rates in the primary tumor from patients with newly diagnosed locally advanced or oligometastatic prostate cancer treated with combination androgen deprivation therapy (ADT) and 3 cycles of docetaxel chemotherapy followed by prostatectomy.

Source: Astellas Pharm Inc
Title: Ph I study of escalating doses of ASG-22CE given as monotherapy in subjects with metastatic urothelial cancer that express Nectin-4 (ASG-22CE-13-2)

Amount: N/A
Years: 2014-2019
PI: Jonathan Rosenberg, MD
Effort: N/A
Role: Site Principal Investigator (UWCCC)

Summary The purpose of this study is to evaluate the safety and pharmacokinetics of enfortumab vedotin as well as assess the immunogenicity and antitumor activity in subjects with metastatic urothelial cancer and other malignant solid tumors that express Nectin-4.

Source: Bristol Myers Squibb
Title: Phase II study of Optimized Management of NIVolumab based on

	REsponse in patients with advanced renal cell carcinoma (OMNIVORE study) study
Amount:	N/A
Years:	2018-2022
PI:	Toni Choueiri, MD
Effort:	N/A
Role:	Translational lead
Summary	Assess the proportion of subjects with persistent complete response (CR) or partial response (PR) at one year after nivolumab discontinuation (Arm A), and assess the proportion of subjects with progressive disease (PD)/stable disease (SD) that convert to PR/CR at one year upon the addition of ipilimumab to nivolumab (Arm B).
Source:	Hoosier Cancer Research Network
Title:	A Phase I/II, Single Arm, Non-Randomized Study of Ribociclib (LEE011), a CDK 4/6 Inhibitor in Combination with Bicalutamide, an Androgen Receptor (AR) Inhibitor, in Advanced AR+ Triple-Negative Breast Cancer: BTCRC-BRE15-024
Amount:	N/A
Years:	2017-Present
PI:	Kari Wisinski, MD
Effort:	N/A
Role:	Translational lead
Summary	To determine the maximum tolerated dose (MTD) and recommended Phase II dose (RP2D) for the combination of bicalutamide and ribociclib in advanced AR+ TNBC.
Source:	Plexxikon, Inc.
Title:	Multicenter Open-Label, Parallel, Ph 1b/2a Study of PLX2853 in Combination with Abiraterone Acetate & Prednisone & Phase 1b/2a Study of PLX2853 in Combination w/ Olaparib in Subjects with Metastatic Castration-Resistant Prostate Cancer (mCRPC)
Amount:	\$247,583
Years:	2021-Present
PI:	Mary Ellen Taplin
Effort:	N/A
Role:	Site Principal Investigator (UWCCC)
Summary	The purpose of this research study is to evaluate safety, pharmacokinetics, pharmacodynamics and preliminary efficacy of the investigational drug PLX2853 in subjects with Metastatic Castration-Resistant Prostate Cancer (mCRPC)
Source:	Exact Sciences
Title:	ASCEND 2
Amount:	\$143,824
Years:	2021-Present
PI:	Joshua Lang, MD, MS
Effort:	N/A
Role:	Site Principal Investigator (UWCCC)
Summary	Evaluate new screening biomarkers from patients with newly diagnosed solid tumor malignancies.

Source: Arvinas Androgen Receptor, Inc.
 Title: A Phase 1 Open-Label, Dose-Escalation Clinical Trial to Evaluate the Safety, Tolerability, Pharmacokinetics, and Pharmacodynamics of ARV-766 in Patients with Metastatic Castration-Resistant Prostate Cancer
 Amount: \$155,769
 Years: 2021-Present
 PI: Daniel Petrylak, MD
 Effort: N/A
 Role: Site Principal Investigator (UWCCC)
 Summary: A Phase 1/2 study to evaluate the safety and efficacy of ARV-766 given by mouth in men with metastatic castration-resistant prostate cancer who have progressed on prior approved systemic therapies

Source: AstraZeneca
 Title: Comprehensive stereotactic body radiotherapy (SBRT) to all sites of oligometastatic non-small cell lung cancer (NSCLC) combined with durvalumab (MEDI4736) and tremelimumab dual immune checkpoint inhibition
 Amount: N/A
 Years: 2017-2021
 PI: Michael Bassetti, MD
 Role: Translational lead
 Summary: To determine the safety and tolerability of combined durvalumab and tremelimumab in following SBRT to all sites of disease in patients with oligometastatic NSCLC.

Source: GlaxoSmithKline
 Title: PhIB study to investigate the safety, pharmacokinetics, pharmacodynamics, and clinical activity of GSK525762 in combination with androgen deprivation therapy and other agents in subjects with castrate-resistant prostate cancer (CRPC)
 Years: 2017-2021
 PI: Mary Ellen Taplin
 Role: Site Principal Investigator (UWCCC)
 Summary: To determine the safety and tolerability of GSK525762, when given in combination with either abiraterone (Arm A) or enzalutamide (Arm B) in men with CRPC, and To determine clinical activity and recommended Phase 2 dose (RP2D) of GSK525762, when given in combination with either abiraterone (Arm A) or enzalutamide (Arm B) in men with mCRPC. Source: Immunomedics

Title: A Phase I/II Study of IMMU-132 (hRS7-SN38 Antibody Drug Conjugate) in Patients with Epithelial Cancer (IMMU-032-01)
 Years: 2016-2020
 PI: Allyson Ocean, MD
 Role: Site Principal Investigator (UWCCC)
 Summary: In Phase I, the primary objective is to evaluate the safety and tolerability of IMMU-132 as a single agent administered in 3-week treatment cycles, in previously treated patients with advanced epithelial cancer. The secondary objectives are to obtain initial data concerning

pharmacokinetics, immunogenicity, and efficacy with this dosing regimen. In Phase II, the primary objective is the evaluation of the safety and efficacy of IMMU-132 administered in 3-week treatment cycles at a dose selected in Phase I, while the secondary objectives include pharmacokinetics and immunogenicity.

Source: Hoosier Cancer Research Network
Title: Phase Ib/II study of anti-PD-1 antibody MK-3475 + Bevacizumab for metastatic renal cell carcinoma: Big 10 Ca Research Consortium BTCRC-GU14-003
Years: 2016-2020
PI: Arkadiusz Z. Dudek, MD
Role: Site Principal Investigator (UWCCC)
Summary: This is an open label, multi-institutional, single arm study of dose escalation phase Ib cohort, followed by a phase II cohort of anti-PD-1 antibody MK-3475 in combination with bevacizumab. No randomization or blinding is involved.

Source: Acceleron Pharmaceuticals
Title: A Phase II Randomized Study of Dalantercept plus Axitinib vs. Placebo plus Axitinib in Patients with Clear Cell Renal Carcinoma
Amount: Not Available
Years: 2015-2017
PI: Yousef Zakharia, MD
Effort: N/A
Role: Site Principal Investigator (UWCCC)
Summary: The purpose of Part 1 of this study is to evaluate the safety and tolerability of dalantercept in combination with axitinib in patients with advanced renal cell carcinoma (RCC) to determine the recommended dose level of dalantercept in combination with axitinib for Part 2. The purpose of Part 2 of this study is to determine whether treatment with dalantercept in combination with axitinib prolongs progression free survival (PFS) compared to axitinib alone in patients with advanced renal cell carcinoma (RCC).

Source: Memorial Sloan Kettering, Prostate Cancer Foundation, Innocrin Pharmaceuticals
Title: A Single-arm, Phase 2 Study to Evaluate the Safety and Efficacy of VT-464 in Patients with Castration-Resistant Prostate Cancer Progressing on Enzalutamide or Abiraterone
Amount: \$76,300
Years: 2015-2021
PI: Howard Scher, MD
Effort: N/A
Role: Translational lead
Summary: The goal of this clinical study is to determine the efficacy and safety of Seviteronel, a lyase-selective inhibitor of CYP17 and an androgen receptor antagonist, in patients with castration-resistant prostate cancer (CRPC) who have been previously treated with enzalutamide and/or abiraterone.

Source: Southwest Oncology Group
Title: S1216 A Phase III Randomized Trial Comparing Androgen Deprivation Therapy + TAK-700 With Androgen Deprivation Therapy + Bicalutamide in Patients with Newly Diagnosed Metastatic Hormone Sensitive Prostate Cancer
Years: 2014-2022
PI: Neeraj Aggarwal, MD
Role: Site Principal Investigator (UWCCC)
Summary: The purpose of this study is to compare overall survival in newly diagnosed metastatic prostate cancer patients randomly assigned to androgen deprivation therapy (ADT) + TAK-700 versus ADT + bicalutamide.

Source: Dana Farber Cancer Institute
Title: Phase II clinical trial of abiraterone acetate without exogenous glucocorticoids in men with castration-resistant prostate cancer with correlative assessment of hormone intermediates
Years: 2014-2021
PI: Mary Ellen Taplin, MD
Role: Translational lead
Summary: This study is comparing the safety and effectiveness of abiraterone acetate alone, followed by the addition of prednisone (when the participant's disease worsens or the physician feels it would lessen symptoms of toxicity) versus the current approved treatment regimen which involves the concomitant use of prednisone in conjunction with abiraterone acetate. Additionally, this study is also examining why participants stop responding to treatment with abiraterone acetate by evaluating blood and tissue.

Source: Medivation
Title: MDV3100-18: An Open Label Phase 2 Study of 18F Sodium Fluoride PET/CT Bone Imaging in Enzalutamide Treated Chemotherapy Naïve Patients with Metastatic Castration Resistant Prostate Cancer
Years: 2014-2020
PI: Christos Kyriakopoulos (UW)
Role: Translational lead
Summary: Evaluate 18F-sodium fluoride positron-emission tomography / computed tomography (18F-NaF PET/CT) imaging as a method for determining treatment response in metastatic bone lesions at the time of disease progression (prostate-specific antigen [PSA], bone or soft tissue, or other clinically relevant progression) or at 2 years without progression after treatment initiation in patients who are chemotherapy-naïve in the castration-resistant setting with progressive bone-metastatic castration-resistant prostate cancer (CRPC) treated with enzalutamide

Source: Novartis
Title: A phase I/II, multicenter, open-label dose finding study of oral CFG920 in patients with metastatic castration-resistant prostate cancer
Amount: N/A
Years: 2012-2016
PI: Not Available

Effort: N/A
 Role: Site Principal Investigator (UWCCC)
 Summary: This study was supposed to have assessed the safety and preliminary antitumor activity of CFG920, a new CYP17 inhibitor in castration resistant prostate cancer patients who are abiraterone naive or abiraterone resistant.

Source: Agensys
 Title: A Phase I, Open-label, Multi-center, Dose Escalation Study of the Safety and Pharmacokinetics of ASG-5ME Monotherapy in Subjects with Castration-Resistant Prostate Cancer

Amount: N/A
 Years: 2010-2013
 PI: Jonathan Rosenberg, MD
 Effort: N/A
 Role: Site Principal Investigator (UWCCC)
 Summary: The purpose of this dose escalation study is to determine the Maximum Tolerated Dose (MTD) and the recommended Phase 2 dose of ASG-5ME in subjects with castration-resistant prostate cancer (CRPC).

Educational Activities & Presentations

Educational activities prior to promotion to Associate Professor are in gray.

Classroom Teaching (graduate & undergraduate)						
Years	Course Title	Credits	Students	Grade Distribution	Contact Hours	Format
2011-Present	Didactic Series Genitourinary Oncology Lecturer	N/A	Hematology/Oncology Fellows	N/A	2	lecture
2011-2019	Didactic Series Prostate Cancer Lecturer	N/A	Urology Residents	N/A	2	lecture
2012-2014	Fundamentals of Research Series Faculty Mentor Prostate Cancer Lecturer	N/A	Hematology/Oncology Fellows	N/A	2	lecture
2014-2019	UW SMPH 2 nd Year Medical Student Educational Series Prostate Cancer Lecturer	3	UW SMPH 2 nd Year Medical Student	N/A	2	lecture
2015-	UW Internal	N/A2	Resident	N/A	2	lecture



Present	Medicine Residency Didactic Series					
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Guest Lectures (graduate & undergraduate)

Years	Course Title	Credits	Students	Contact Hours	Format
2022	Path 901: Integrated Molecular Medicine, The Data Revolution in Science and Medicine	3	12	1	Lecture

Medical School Teaching

Years	Course Title	Credits	Students	Grade Distribution	Contact Hours	Format
2012-Present	Genitourinary Oncology Clinic	N/A	14	N/A	4	Faculty Mentor

Local Continuing Medical Education Courses

Years	Course Title	Students	Hours	Sponsor - Venue
2008	Prostate Cancer: Responding to Immunotherapy	N/A	1 hr	Advances in Medicine. Internal Medicine Residency Annual Seminar, Madison, WI
2011	Gynecologic & Genitourinary Malignancies: Highlights from ASCO 2011	N/A	1 hr	University of Wisconsin Carbone Cancer Center Grand Rounds, Madison, WI.
2011	Medical Management of Castrate Resistant Prostate Cancer	N/A	1 hr	University of Wisconsin Urology Grand Rounds, Madison, WI
2013	2013 Comprehensive Cancer Network: Integration of Novel Management Strategies for Castrate-Resistant Prostate Cancer	N/A	1 hr	Medical Learning Institute: Fall 2013 Lecture Series, UW-Madison, Madison, WI
2013	Medical Management of Castrate Resistant Prostate Cancer	N/A	1 hr	University of Wisconsin Urology Grand Rounds, Madison, WI
2014	Update on the Management of Prostate Cancer	N/A	1 hr	University of Wisconsin Nursing Basic Oncology Course, Madison, WI.
2015	Management of Prostate Cancer	N/A	1 hr	University of Wisconsin Nursing Basic Oncology Course, Madison, WI.



2015	Medical Management of Prostate Cancer	N/A	1 hr	University of Wisconsin Urology Grand Rounds, Madison, WI.
2016	Management of Prostate Cancer	N/A	1 hr	University of Wisconsin Nursing Basic Oncology Course, Madison, WI.
2016	Translational Biomarkers in Oncology	N/A	1 hr	University of Wisconsin Biohouse Lecture, Madison, WI.
2017	PSA Screening for Prostate Cancer: If So, Why? If Not, Why Not?	N/A	1 hr	University of Wisconsin Internal Medicine Conference. Madison, WI
2017	Medical Management of Prostate Cancer	N/A	1 hr	University of Wisconsin Urology Grand Rounds, Madison, WI.
2019	Treatment of Metastatic Prostate Cancer	N/A	1 hr	University of Wisconsin Urology Grand Rounds, Madison, WI.
2019	Management of Advanced Prostate Cancer	N/A	1 hr	University of Wisconsin Society of Urologic Oncologists.
2019	Management of Advanced Prostate Cancer	N/A	1 hr	University of Wisconsin American Urological Association.
2020	Management of Advanced Prostate Cancer	N/A	1 hr	University of Wisconsin Society of Urologic Oncologists.
2020	Management of Advanced Prostate Cancer	N/A	1 hr	University of Wisconsin American Urological Association.
2021	Management of Advanced Prostate Cancer	N/A	1 hr	University of Wisconsin, American Urological Association.
2022	Management of Advanced Prostate Cancer	N/A	1 hr	University of Wisconsin, American Urological Association.
2022	Systemic Therapies in Genitourinary Malignancies	N/A	1 hr	University of Wisconsin, UW Radiation Oncology Residency Program.

National Continuing Medical Education Courses

Years	Course Title	Students	Hours	Sponsor - Venue
2004	Patient Education Lecture Series: Exercise & Chronic Disease	N/A	N/A	Healthy Heart Initiative, Miles Square Community Health Center, Chicago, IL

Postdoctoral Mentees

Years	Mentee Name	Current Position
2012	Jonathan King, MD	Grand Valley Oncology Community Hospital, Colorado
2012	Ashok Singh, PhD	Associate Research Scientist, PPD



2013	Joshua Desotelle, PhD	Study Director, Covance
2014	David Kosoff, MD	Assistant Professor-Tenure Track, University of Wisconsin
2014	Brian Johnson, PhD	Assistant Professor-Tenure Track, Michigan State University
2014	Chorom Pak, PhD	Founder, Lynx Biosystems
2015	Jennifer Schehr, PhD	Scientist and Facility Manager, UWCCC Circulating Biomarker Core
2015	Waddah Arrafat, MD	Assistant Professor, University of Texas Southwestern
2015	Kimberly Ku, MD	Illinois Cancer Care, P.C., Illinois
2018	Nan Sethakorn, MD PhD	Assistant Professor-Tenure Track, Loyola University Chicago
2019	Marina Sharifi, MD PhD	Assistant Professor-Tenure Track, University of Wisconsin
2022	Amy Taylor, MD	Assistant Professor-CHS Track starting 9/2024, University of Wisconsin

Graduate Student Mentees

Years	Mentee Name	Degree Program	Current Position
2013	Benjamin Casavant, PhD	Biomedical Engineering	Founder, Tasso, Inc
2014	Lindsay Strotman, PhD	Biomedical Engineering	CLIA Lab Director, Technical Consultant at Lighthouse Lab Services
2014	Jacob Tokar, PhD	Biomedical Engineering	Bioengineer, GoDX
2014	David John Guckenberger, PhD	Biomedical Engineering	Staff Scientist, Fluidigm Corporation
2014	Hannah Pezzi, PhD	Biomedical Engineering	Sr Manager, Thermo Fisher Scientific
2015	Ryan Denu, MD, PhD	Medical Scientist Training Program	MD Anderson-Oncology Fellow
2016	Tamara Rodems	Cancer Biology	Biomedical Scientist, 858 Therapeutics, Inc.
2016	Duane Juang, PhD	Biomedical Engineering	Staff Scientist, Flexomics LLC
2016	Cole Gilsdorf	Cellular and Molecular Pharmacology	N/A
2020	Charlotte Stahlfeld	Clinical Investigation	MD at University of Pittsburgh
2021	Adeline Ding	Cancer Biology	N/A
2021	Zachary Kaufmann	Cancer Biology	N/A
2022	Katherine Kaufmann	Clinical Investigation	N/A

Undergraduate Student Mentees

Years	Mentee Name	Degree Program	Current Position
2011	Brianna Byers	Research Scholars	N/A
2012	Mark Park	Research Scholars	N/A
2012	Benjamin Gibbs	Research Scholars	MD/PhD program at the University of Kansas
2013	Timothy Kreuger	Research Scholars	PhD at Johns Hopkins University
2014	Jenni Geurink	Bio152 Research Course	
2015	Madelyn Hettinger	Bio152 Research Course	N/A
2015	Zachary Schultz	Research Scholars	PhD-University of Wisconsin

2015	Nihal Voruganti	Research Scholars	MD-Medical College of Wisconsin
2015	McKaylin Gamel	Research Scholars	N/A
2015	Madison Kircher	Bio152 Research Course	N/A
2015	Kris Carlson	Student Volunteer	PhD, University of Washington
2016	Vikram Suresh	Research Scholars	Registered Nurse, Unity Point Health
2016	Tessa Witkowsky	Bio152 Research Course	N/A
2017	Harshitha Gungurthi	Research Scholars	N/A
2017	Rory Bade	Laboratory Research Assistant	MD-University of Wisconsin
2017	Camila Hernandez	Research Scholars	MD-SUNY
2017	Aaron Strauch	Research Scholars	N/A
2018	Maria Villalobos	Research Scholars	N/A
2019	Matthew Dwyer	Research Scholars	Technical Marketing Engineer, KEYENCE
2019	Isabella Fernandez	Research Scholars	N/A
2019	Jasmine Martinez Soto	Research Scholars	Health Equity Scholars Program Intern, Health Career Connection
2019	Benjamin Ryabov	Research Scholars	N/A
2022	Jacob Caceres	Laboratory Research Assistant	Client-Based Researcher, UWCCC Circulating Biomarker Core
2022	Nasya Ramli	Laboratory Research Assistant	N/A
2022	Abigail Laughlin	Laboratory Research Assistant	N/A
2022	Allison Kinsey	Laboratory Research Assistant	N/A
2022	Jacqueline Wallin	Laboratory Research Assistant	N/A
2022	Luke Nunamaker	Laboratory Research Assistant	UWCCC Lang Lab Research Specialist

Service Activities

Service activities prior to promotion to Associate Professor are in gray.

Departmental/School

2015-2018	Clinical Co-Chair, UWCCC Precision Medicine Molecular Tumor Board
2017-Present	Co-Director, UW Physician Scientist Training Program
2017-Present	Director, Liquid Biospecimen Team, UW Carbone Cancer Center
2017-Present	Director, Circulating Biomarker Core, UW Carbone Cancer Center
2019-Present	Co-Leader, Tumor Microenvironment Program, UW Carbone Cancer Center
2021-Present	Vice Chair of Biomedical Research, Department of Medicine, University of Wisconsin
2021-Present	Leadership Council, Department of Medicine, University of Wisconsin

UW-Madison/Hospital

2013-2016	Representative, UW Institutional Biosafety Committee
2015-Present	UW Carbone Cancer Center Space Usage Committee
2017-2019	UW Dept of Medicine: Invest in Members Committee

2012-Present	Weekly Genitourinary Oncology Clinic-UWCCC
2012-Present	Attending Physician, Inpatient Medical Oncology Service UWHC
2018-Present	UW Dept of Medicine: Executive Committee
2018-Present	UW School of Medicine and Public Health: Conflict of Interest Committee
2018-Present	UW Carbone Cancer Center: Senior Leaders Committee
2019-Present	UW Hospitals and Clinics: East Campus Planning Committee-Research and Clinical Trials Subcommittee
2019-Present	UW Hematology/Oncology Fellowship Program: Program Evaluation Committee

Committee Assignments

2014-2016	Representative: Society for Immunotherapy of Cancer Committee for Immunotherapy Education and Outreach (CIEO), Early Career Scientist Subcommittee
2014-2017	Co-Chair: Prostate Cancer Foundation Young Investigator Community
2016-Present	NCCN Prostate Cancer Panel
2017	Member, AACR Cancer Progress Report 2017 Steering Committee
2020	Internal Medicine Residency Program Director Search Committee
2020-Present	Member, Prostate Cancer Value Pathway NCCN Task Force
2022	Project Team Member-Translational Scientist, ETCTN CBX-12 Clinical Development program

Grant Reviewer

2012	External Grant Reviewer: Prostate Cancer UK 2012
2012	External Grant Reviewer: Prostate Cancer Foundation Young Investigator Awards 2012
2013	External Grant Reviewer: Prostate Cancer Foundation Young Investigator Awards 2013
2014	External Grant Reviewer: Prostate Cancer Foundation Young Investigator Awards 2014
2014	Study Section Member: Prostate Cancer Foundation Challenge Awards 2014
2014	Scientist Reviewer: Department of Defense Prostate Cancer Research Program 2014
2015	Study Section Member: Prostate Cancer Foundation Challenge Awards 2015
2015	Ad Hoc Reviewer: NCI ZRG1 OTC-B(11) Cancer Diagnostics and Treatments SBIR/STTR Review Panel 2015
2015	Scientist Reviewer: Department of Defense Prostate Cancer Research Program-2015
2015	Ad Hoc Reviewer: NCI Small Grants Program for Cancer Research (NCI Omnibus R03) and PAR-13-146, NCI Exploratory/Developmental Research Grant Program (NCI Omnibus R21). 10/2015
2016	Ad Hoc Reviewer: NCI Small Grants Program for Cancer Research (NCI Omnibus R03) and PAR-13-146, NCI Exploratory/Developmental Research Grant Program (NCI Omnibus R21). 04/2016
2018	Study Section Member: 2018 NCCN Young Investigator Awards
2018	Study Section Member: Prostate Cancer Foundation Challenge Awards 2018
2018	Ad Hoc Study Section Member: Veterans Affairs Health Administration Office of Research and Development Oncology A (ZRD1 ONCA-Y) panel

	2018	
2019		Ad Hoc Study Section Member: Veterans Affairs Health Administration Office of Research and Development Oncology A (ZRD1 ONCA-Y) panel 2019
2020		Ad Hoc Reviewer: NCI Small Grants Program for Cancer Research (NCI Omnibus R03)" and "NCI Exploratory/Developmental Research Grant Program (NCI Omnibus R21) panel 2020.
2020		Grant Reviewer: Veteran's Administration Oncology A Review Panel Spring 2020
2020		External Grant Reviewer: Prostate Cancer Foundation Challenge Grant Review 2020
2020		Scientist Reviewer: Department of Defense Prostate Cancer Research Program. 2020
2021		Ad Hoc Reviewer: NCI Small Grants Program for Cancer Research (NCI Omnibus R03)" and "NCI Exploratory/Developmental Research Grant Program (NCI Omnibus R21) panel 2021.
2021		Ad Hoc Reviewer: NCI Clinical Oncology Study Section Review Panel 2021
2022-2027		Standing Member: NCI Clinical Oncology Study Section Review Panel 2022-2027

Journal Reviews

- Ad hoc Journal Reviewer: *Science Translational Medicine*
- Ad hoc Journal Reviewer: *The Lancet Oncology*
- Ad hoc Journal Reviewer: *Clinical Cancer Research*
- Ad hoc Journal Reviewer: *Journal of Clinical Investigation*
- Ad hoc Journal Reviewer: *Cancer Research*
- Ad hoc Journal Reviewer: *Translational Oncology*
- Ad hoc Journal Reviewer: *Immunotherapy*
- Ad hoc Journal Reviewer: *Asian Journal of Andrology*
- Ad hoc Journal Reviewer: *Urologic Oncology*
- Ad hoc Journal Reviewer: *Oncotarget*
- Ad hoc Journal Reviewer: *BMC Cancer*
- Ad hoc Journal Reviewer: *Molecular Cancer Research*
- Ad hoc Journal Reviewer: *Integrative Biology*
- Ad hoc Journal Reviewer: *The Oncologist*

Journal Editor Assignments

2013		Co-Guest Editor: <i>Methods Journal: Methods for the Isolation and Analysis of Rare Cell Populations 2013</i>
2018		Guest Editor: <i>Urologic Oncology: Therapeutic Targeting of the Prostate Tumor Microenvironment 2018</i>

Professional Service

National

2014		Session Chair, Prostate Cancer Foundation Young Investigator Day, Prostate Cancer Foundation 21 st Annual Retreat. Carlsbad, CA. Oct 22, 2014.
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- 2015 Session Chair, Molecular Medicine Tri-Con Short Course: Translating CTCs to Clinical Use. San Francisco, CA. Feb 15, 2015.
- 2015 Chair, Organizing Committee: Coffey-Holden Prostate Cancer Academy 3rd Annual Meeting, San Diego, CA June 25-28, 2015.
- 2015 Session Chair, 14th International Kidney Cancer Association Symposium, Invited Abstract Session. Miami, FL. November 7, 2015.
- 2016 Session Chair, Molecular Medicine Tri-Con Short Course: Translating CTCs to Clinical Use. San Francisco, CA. March 6, 2016.
- 2016 Session Chair, Molecular Medicine Tri-Con Short Course: Translating CTCs to 2016 Clinical Use. Washington, DC. August 25, 2016.
- 2016 Member, Organizing Committee, Prostate Cancer Foundation 23rd Annual Retreat. Carlsbad, CA. Oct 25, 2016.
- 2016 Session Chair, Targeted Therapeutics in Prostate Cancer, Prostate Cancer Foundation 23rd Annual Retreat. Carlsbad, CA. Oct 25, 2016.
- 2017 Session Chair, Molecular Medicine Tri-Con Short Course: Translating CTCs to Clinical Use. San Francisco, CA. February 19, 2017.
- 2017 Session Chair, Molecular Medicine Tri-Con Short Course: Translating CTCs to Clinical Use. San Francisco, CA. February 19, 2017.
- 2017 Session Chair, Liquid and Solid Biopsies of Metastatic Lesions: How, When and What to Do With the Results? American Society of Clinical Oncology. Chicago, IL. June 4, 2017.
- 2022 Session Chair, ASCO Poster Discussion Session: Genitourinary Cancer—Prostate, Testicular, and Penile American Society of Clinical Oncology. Chicago, IL. June 6, 2022.
- 2022 Member, Organizing Committee, Prostate Cancer Foundation Young Investigator Day, 29th Annual Retreat. Carlsbad, CA. Oct 27, 2022.

Community Outreach/Service

- 2021 NCCN Prostate Cancer Educational Series, NCCN Patient Webinar, May 19, 2021. Virtual
- 2021 NCCN Prostate Cancer Therapeutics, NCCN Tumor Board Webinar, July 21, 2021. Virtual
- 2022 Prostate Cancer Screening. Advocate Aurora Cancer Screening Seminar. Oct 11, 2022. Virtual.

Diversity, Equity, & Inclusion Statement

My earliest clinical experiences in graduate and medical school in Chicago profoundly impacted my understanding of critical barriers to equitable healthcare. While some of these barriers reflected my personal experience growing up in rural Iowa, I also learned to recognize the profound societal barriers that must be directly addressed to help our patients, from biologic understanding of disease to accessing cutting edge diagnostics and therapies. As a physician scientist, I recognize the opportunity and responsibility to learn from our community partners on where to focus our research efforts. For example, engaging and supporting the African American Community Advocacy Board at UWCCC has led to new research questions and research studies, including a new biomarker clinical trial to answer a question raised by our community members on “what is the normal range for a cancer test in African Americans”. These are critical questions that we are addressing in close partnership with our community in a newly funded clinical trial and serve as a template for future research and clinical trials. This has also led to the development of a new coalition across 5 NCI Cancer Centers to perform the largest liquid biopsy clinical study for black men with metastatic prostate cancer, set to launch in 2024. These and other research studies seek to address critical gaps in biologic understanding and novel therapies, focused on African American men who have the highest risk of death from prostate cancer but significantly less access to cutting edge diagnostics and research. This approach of direct engagement, active listening and clear action is an example of how diversity, equity and inclusion is integral to achieving better care, and cures, for patients fighting cancer.