

Heather Wood Sheppard, D.V.M., Ph.D., Diplomate, A.C.V.P.

Comparative Pathologist

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ACADEMIC APPOINTMENTS

07/2026-Present	Interim Associate Dean for Research and Graduate Education College of Veterinary Medicine, Arkansas State University
06/2026-Present	Associate Professor (Teaching) , Anatomic Pathology College of Veterinary Medicine, Arkansas State University
07/2021-05/2026	Associate Member , Division of Comparative Pathology, Department of Pathology, St. Jude Children's Research Hospital
03/2015-07/2021	Assistant Member , Division of Comparative Pathology, Department of Pathology, St. Jude Children's Research Hospital

PROFESSIONAL EDUCATION

07/2010-05/2016	Ph.D. in Pathology Comparative Biomedical Scientist Training Program, National Institutes of Health (NIH) Graduate Partnerships Program Partnership: National Cancer Institute (NCI), Bethesda, MD, and Michigan State University, College of Veterinary Medicine, East Lansing, MI
07/2008-07/2010	Residency in Anatomic Veterinary Pathology Veterinary Diagnostic Laboratory Michigan State University
08/2004-05/2008	D.V.M. (<i>cum laude</i>) , University of Georgia, College of Veterinary Medicine, Athens, GA

COLLEGE EDUCATION

08/2001-05/2005	B.S.A in Animal Science (<i>magna cum laude</i>) University of Georgia College of Agricultural and Environmental Sciences, Athens, GA
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PROFESSIONAL CERTIFICATIONS AND LICENSURE

2012-Present	Diplomate, American College of Veterinary Pathologists (ACVP), Anatomic Pathology
2008-2014	Georgia Veterinary Medical Board, VET007909 (expired)
2026-Present	Arkansas Veterinary Medical Board, License No.: 8219

PRIMARY RESEARCH INTERESTS

Developmental and adult anatomy, physiology, and pathology of domestic and laboratory animal species, with a primary focus on the mouse; pathology of animal disease models; and cancer biology.

HONORS AND AWARDS

2013	ACVP Young Investigator Award, First Place Experimental Pathology Specialty Group 2013 ACVP/ ASVCP annual meeting
2009	ACVP Young Investigator Award, Third Place Diagnostic Pathology Specialty Group 2009 ACVP/ ASVCP annual meeting

07/2008-2/2015	Cancer Research Training Award for Postdoctoral Fellowship NCI Comparative Biomedical Scientist Training Program, NIH, Bethesda, MD
2008	Morrow B. Thomas Award in Veterinary Clinical Pathology
6/2007-7/2007	University of Georgia, College of Veterinary Medicine Cancer Research Training Award for Predoctoral Summer Fellowship NIH Biomedical Research Program for Veterinary Students, NCI Dr. Mark Simpson, Comparative Molecular Pathology Unit, NIH, Bethesda, MD
6/2005-7/2005	Meriel Veterinary Scholars Program Laboratory of Dr. Zhen Fu University of Georgia, College of Veterinary Medicine, Athens, GA

SCHOLARLY PUBLICATIONS

PEER-REVIEWED ORIGINAL RESEARCH

1. LeRoy B, Painter A, **Sheppard H**, Popiolek L, Samuel-Foo M, Andacht TM. Protein expression profiling of normal and neoplastic canine prostate and bladder tissue. *Vet Comp Oncol.* 2007 Jun;5(2):119-30. doi: 10.1111/j.1476-5829.2006.00121.x. PubMed PMID: 19754795.
2. Wei BR, Edwards JB, Hoover SB, **Tillman HS**, Reed LT, Sills RC, Simpson RM. Altered β -catenin accumulation in hepatocellular carcinomas of diethylnitrosamine-exposed rhesus macaques. *Toxicol Pathol.* 2008 Dec;36(7):972-80. doi: 10.1177/0192623308327120. Epub 2008 Oct 31. PubMed PMID: 18978308; PubMed Central PMCID: PMC3855431.
3. Liu YN, Abou-Kheir W, Yin JJ, Fang L, Hynes P, Casey O, Hu D, Wan Y, Seng V, **Sheppard-Tillman H**, Martin P, Kelly K. Critical and reciprocal regulation of KLF4 and SLUG in transforming growth factor β -initiated prostate cancer epithelial-mesenchymal transition. *Mol Cell Biol.* 2012 Mar;32(5):941-53. doi: 10.1128/MCB.06306-11. Epub 2011 Dec 27. PubMed PMID: 22203039; PubMed Central PMCID: PMC3295188.
4. Casey OM, Fang L, Hynes PG, Abou-Kheir WG, Martin PL, **Tillman HS**, Petrovics G, Awwad HO, Ward Y, Lake R, Zhang L, Kelly K. TMPRSS2- driven ERG expression in vivo increases self-renewal and maintains expression in a castration resistant subpopulation. *PLoS One.* 2012;7(7):e41668. doi: 10.1371/journal.pone.0041668. Epub 2012 Jul 30. PubMed PMID: 22860005; PubMed Central PMCID: PMC3408501.
5. Liu YN, Yin JJ, Abou-Kheir W, Hynes PG, Casey OM, Fang L, Yi M, Stephens RM, Seng V, **Sheppard-Tillman H**, Martin P, Kelly K. MiR-1 and miR-200 inhibit EMT via Slug-dependent and tumorigenesis via Slug-independent mechanisms. *Oncogene.* 2013 Jan 17;32(3):296-306. doi: 10.1038/onc.2012.58. Epub 2012 Feb 27. PubMed PMID: 22370643; PubMed Central PMCID: PMC7580497.
6. Yin J, Liu YN, **Tillman H**, Barrett B, Hewitt S, Ylaya K, Fang L, Lake R, Corey E, Morrissey C, Vessella R, Kelly K. AR-regulated TWEAK-FN14 pathway promotes prostate cancer bone metastasis. *Cancer Res.* 2014 Aug 15;74(16):4306-17. doi: 10.1158/0008-5472.CAN-13-3233. Epub 2014 Jun 26. PubMed PMID: 24970477; PubMed Central PMCID: PMC4429795.
7. Liu YN, Yin J, Barrett B, **Sheppard-Tillman H**, Li D, Casey OM, Fang L, Hynes PG, Ameri AH, Kelly K. Loss of Androgen-Regulated MicroRNA 1 Activates SRC and Promotes Prostate Cancer Bone Metastasis. *Mol Cell Biol.* 2015 Jun 1;35(11):1940-51. doi: 10.1128/MCB.00008-15. Epub 2015 Mar 23. PubMed PMID: 25802280; PubMed Central PMCID: PMC4420926.
8. Chang YS, Chen WY, Yin JJ, **Sheppard-Tillman H**, Huang J, Liu YN. EGF Receptor Promotes Prostate Cancer Bone Metastasis by Downregulating miR-1 and Activating TWIST1. *Cancer Res.* 2015 Aug 1;75(15):3077-86. doi: 10.1158/0008-5472.CAN-14-3380. Epub 2015 Jun 12. PubMed PMID: 26071255; PubMed Central PMCID: PMC4909124.

9. Agarwal S, Hynes PG, **Tillman HS**, Lake R, Abou-Kheir WG, Fang L, Casey OM, Ameri AH, Martin PL, Yin JJ, Jaquinta PJ, Karthaus WR, Clevers HC, Sawyers CL, Kelly K. Identification of Different Classes of Luminal Progenitor Cells within Prostate Tumors. *Cell Rep*. 2015 Dec 15;13(10):2147-58. doi: 10.1016/j.celrep.2015.10.077. Epub 2015 Nov 25. PubMed PMID: 26628377; PubMed Central PMCID: PMC4840850.
10. Afasizheva A, Devine A, **Tillman H**, Fung KL, Vieira WD, Blehm BH, Kotobuki Y, Busby B, Chen EI, Tanner K. Mitogen-activated protein kinase signaling causes malignant melanoma cells to differentially alter extracellular matrix biosynthesis to promote cell survival. *BMC Cancer*. 2016 Mar 5;16:186. doi: 10.1186/s12885-016-2211-7. PubMed PMID: 26944546; PubMed Central PMCID: PMC4779217.
11. Ponnusamy S, Sullivan RD, Thiyagarajan T, **Tillman H**, Getzenberg RH, Narayanan R. Tissue Selective Androgen Receptor Modulators (SARMs) Increase Pelvic Floor Muscle Mass in Ovariectomized Mice. *J Cell Biochem*. 2017 Mar;118(3):640-646. doi: 10.1002/jcb.25751. Epub 2016 Nov 28. PubMed PMID: 27681158.
12. Badders NM, Korff A, Miranda HC, Vuppala PK, Smith RB, Winborn BJ, Quemini ER, Sopher BL, Dearman J, Messing J, Kim NC, Moore J, Freibaum BD, Kanagaraj AP, Fan B, **Tillman H**, Chen PC, Wang Y, Freeman BB III, Li Y, Kim HJ, La Spada AR, Taylor JP. Selective modulation of the androgen receptor AF2 domain rescues degeneration in spinal bulbar muscular atrophy. *Nat Med*. 2018 May;24(4):427-437. doi: 10.1038/nm.4500. Epub 2018 Mar 5. PubMed PMID: 29505030; PubMed Central PMCID: PMC5975249.
13. 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.
14. Kanneganti A, Malireddi RKS, Saavedra PHV, Vande Walle L, Van Gorp H, Kambara H, **Tillman H**, Vogel P, Luo HR, Xavier RJ, Chi H, Lamkanfi M. GSDMD is critical for autoinflammatory pathology in a mouse model of Familial Mediterranean Fever. *J Exp Med*. 2018 Jun 4;215(6):1519-1529. doi: 10.1084/jem.20172060. Epub 2018 May 23. PubMed PMID: 29793924; PubMed Central PMCID: PMC5987922.
15. Feng H, **Tillman H**, Wu G, Davidoff AM, Yang J. Frequent epigenetic alterations in polycomb repressive complex 2 in osteosarcoma cell lines. *Oncotarget*. 2018 Jun 5;9(43):27087-27091. doi: 10.18632/oncotarget.25484. eCollection 2018 Jun 5. PubMed PMID: 29930752; PubMed Central PMCID: PMC6007463.
16. Hijano DR, Siefker DT, Shrestha B, Jalgama S, Vu LD, **Tillman H**, Finkelstein D, Saravia J, You D, Cormier SA. Type I Interferon Potentiates IgA Immunity to Respiratory Syncytial Virus Infection During Infancy. *Sci Rep*. 2018 Jul 23;8(1):11034. doi: 10.1038/s41598-018-29456-w. PubMed PMID: 30038294; PubMed Central PMCID: PMC6056463.
17. Lechavue C, Butcher JT, Freiwan A, Biwer LA, Keith JM, Good ME, Ackerman H, **Tillman HS**, Kiger L, Isakson BE, Weiss MJ. Endothelial cell α -globin and its molecular chaperone α -hemoglobin-stabilizing protein regulate arteriolar contractility. *J Clin Invest*. 2018 Nov 1;128(11):5073-5082. doi: 10.1172/JCI99933. Epub 2018 Oct 8. PubMed PMID: 30295646; PubMed Central PMCID: PMC6205378.
18. van Oosterwijk JG, **Tillman H**, Sherr CJ. Sexually dimorphic tumor suppression by small mitochondrial Arf. *Oncotarget*. 2019 Feb 8;10(12):1235-1237. doi: 10.18632/oncotarget.26651. eCollection 2019 Feb 8. PubMed PMID: 30815226; PubMed Central PMCID: PMC6383814.
19. Talleur AC, Métais J, Li Y, Throm RE, **Tillman H**, Rooney B, Moustaki A, Leung W. Allogeneic CD27-depleted cells in adoptive cell therapy. *Advances in Cell and Gene Therapy*. 2019 April; 2(2):e45.
20. Kuriakose J, Redecke V, Guy C, Zhou J, Wu R, Ippagunta SK, **Tillman H**, Walker PD, Vogel P, Häcker H. Patrolling monocytes promote the pathogenesis of early lupus-like glomerulonephritis. *J Clin Invest*. 2019 Apr 29;129(6):2251-2265. doi: 10.1172/JCI125116. eCollection 2019 Apr 29. PubMed PMID: 31033479; PubMed Central PMCID: PMC6546471.
21. Fon Tacer K, Montoya MC, Oatley MJ, Lord T, Oatley JM, Klein J, Ravichandran R, **Tillman H**, Kim M, Connelly JP, Pruett-Miller SM, Bookout AL, Binshtock E, Kamiński MM, Potts PR. MAGE cancer-testis antigens protect the mammalian germline under environmental stress. *Sci Adv*. 2019 May;5(5):eaav4832. doi: 10.1126/sciadv.aav4832. eCollection 2019 May. PubMed PMID: 31149633; PubMed Central PMCID: PMC6541465.
22. Butch ER, Mead PE, Amador Diaz V, **Tillman H**, Stewart E, Mishra JK, Kim J, Bahrami A, Dearling JLJ, Packard AB, Stoddard SV, Vävere AL, Han Y, Shulkin BL, Snyder SE. Positron Emission Tomography Detects In Vivo Expression of Disialoganglioside GD2 in Mouse Models of Primary and Metastatic Osteosarcoma. *Cancer Res*. 2019 Jun 15;79(12):3112-3124. doi: 10.1158/0008-5472.CAN-18-3340. Epub 2019 Apr 23. PubMed PMID: 31015228; PubMed Central PMCID: PMC6571039.

23. Albeituni S, Verbist KC, Tedrick PE, **Tillman H**, Picarsic J, Bassett R, Nichols KE. Mechanisms of action of ruxolitinib in murine models of hemophagocytic lymphohistiocytosis. *Blood*. 2019 Jul 11;134(2):147-159. doi: 10.1182/blood.2019000761. Epub 2019 Apr 23. PubMed PMID: 31015190; PubMed Central PMCID: PMC6624972.
24. Annunziata I, van de Vlekkert D, Wolf E, Finkelstein D, Neale G, Machado E, Mosca R, Campos Y, **Tillman H**, Roussel MF, Andrew Weesner J, Ellen Fremuth L, Qiu X, Han MJ, Grosveld GC, d'Azzo A. MYC competes with MiT/TFE in regulating lysosomal biogenesis and autophagy through an epigenetic rheostat. *Nat Commun*. 2019 Aug 9;10(1):3623. doi: 10.1038/s41467-019-11568-0. PubMed PMID: 31399583; PubMed Central PMCID: PMC6689058.
25. Wang H, Diaz AK, Shaw TI, Li Y, Niu M, Cho JH, Paugh BS, Zhang Y, Sifford J, Bai B, Wu Z, Tan H, Zhou S, Hover LD, **Tillman HS**, Shirinifard A, Thiagarajan S, Sablauer A, Pagala V, High AA, Wang X, Li C, Baker SJ, Peng J. Deep multiomics profiling of brain tumors identifies signaling networks downstream of cancer driver genes. *Nat Commun*. 2019 Aug 16;10(1):3718. doi: 10.1038/s41467-019-11661-4. PubMed PMID: 31420543; PubMed Central PMCID: PMC6697699.
26. Lechaue C, Keith J, Khandros E, Fowler S, Mayberry K, Freiwan A, Thom CS, Delbini P, Romero EB, Zhang J, Motta I, **Tillman H**, Cappellini MD, Kundu M, Weiss MJ. The autophagy-activating kinase ULK1 mediates clearance of free α -globin in β -thalassemia. *Sci Transl Med*. 2019 Aug 21;11(506). doi: 10.1126/scitranslmed.aav4881. PubMed PMID: 31434755; PubMed Central PMCID: PMC7441525.
27. **Tillman H**, Janke LJ, Funk A, Vogel P, Rehge JE. Morphologic and Immunohistochemical Characterization of Spontaneous Lymphoma/Leukemia in NSG Mice. *Vet Pathol*. 2020 Jan;57(1):160-171. doi: 10.1177/0300985819882631. Epub 2019 Nov 18. PubMed PMID: 31736441; PubMed Central PMCID: PMC8686194.
28. Yang SW, Li L, Connelly JP, Porter SN, Kodali K, Gan H, Park JM, Tacer KF, **Tillman H**, Peng J, Pruett-Miller SM, Li W, Potts PR. A Cancer-Specific Ubiquitin Ligase Drives mRNA Alternative Polyadenylation by Ubiquitinating the mRNA 3' End Processing Complex. *Mol Cell*. 2020 Mar 19;77(6):1206-1221.e7. doi: 10.1016/j.molcel.2019.12.022. Epub 2020 Jan 21. PubMed PMID: 31980388.
29. **Tillman H**, Vogel P, Rogers T, Akers W, Rehge JE. Spectrum of Posttransplant Lymphoproliferations in NSG Mice and Their Association With EBV Infection After Engraftment of Pediatric Solid Tumors. *Vet Pathol*. 2020 May;57(3):445-456. doi: 10.1177/0300985820913265. Epub 2020 Mar 23. PubMed PMID: 32202225; PubMed Central PMCID: PMC7478125.
30. Koirala S, Klein J, Zheng Y, Glenn NO, Eisemann T, Fon Tacer K, Miller DJ, Kulak O, Lu M, Finkelstein DB, Neale G, **Tillman H**, Vogel P, Strand DW, Lum L, Brautigam CA, Pascal JM, Clements WK, Potts PR. Tissue-Specific Regulation of the Wnt/ β -Catenin Pathway by PAGE4 Inhibition of Tankyrase. *Cell Rep*. 2020 Jul 21;32(3):107922. doi: 10.1016/j.celrep.2020.107922. PubMed PMID: 32698014.
31. Meyer LK, Verbist KC, Albeituni S, Scull BP, Bassett RC, Stroth AN, **Tillman H**, Allen CE, Hermiston ML, Nichols KE. JAK/STAT pathway inhibition sensitizes CD8 T cells to dexamethasone-induced apoptosis in hyperinflammation. *Blood*. 2020 Aug 6;136(6):657-668. doi: 10.1182/blood.2020006075. PubMed PMID: 32530039; PubMed Central PMCID: PMC7414590.
32. Chen H, Victor AK, Klein J, Tacer KF, Tai DJ, de Esch C, Nuttle A, Temirov J, Burnett LC, Rosenbaum M, Zhang Y, Ding L, Moresco JJ, Diedrich JK, Yates JR 3rd, **Tillman HS**, Leibel RL, Talkowski ME, Billadeau DD, Reiter LT, Potts PR. Loss of MAGEL2 in Prader-Willi syndrome leads to decreased secretory granule and neuropeptide production. *JCI Insight*. 2020 Sep 3;5(17). doi: 10.1172/jci.insight.138576. PubMed PMID: 32879135; PubMed Central PMCID: PMC7526459.
33. Singh S, Abu-Zaid A, Lin W, Low J, Abdolvahabi A, Jin H, Wu Q, Cooke B, Fang J, Bowling J, Vaithiyalingam S, Currier D, Yun MK, Fernando DM, Maier J, **Tillman H**, Bulsara P, Lu Z, Das S, Shelat A, Li Z, Young B, Lee R, Rankovic Z, Murphy AJ, White SW, Davidoff AM, Chen T, Yang J. 17-DMAG dually inhibits Hsp90 and histone lysine demethylases in alveolar rhabdomyosarcoma. *iScience*. 2021 Jan 22;24(1):101996. doi: 10.1016/j.isci.2020.101996. eCollection 2021 Jan 22. PubMed PMID: 33490904; PubMed Central PMCID: PMC7811140.
34. Janke LJ, Imai DM, **Tillman H**, Doty R, Hoenerhoff MJ, Xu JJ, Freeman ZT, Allen P, Fowlkes NW, Iacobucci I, Dickerson K, Mullighan CG, Vogel P, Rehge JE. Development of Mast Cell and Eosinophil Hyperplasia and HLH/MAS-Like Disease in NSG-SGM3 Mice Receiving Human CD34+ Hematopoietic Stem Cells or Patient-Derived Leukemia Xenografts. *Vet Pathol*. 2021 Jan;58(1):181-204. doi: 10.1177/0300985820970144. Epub 2020 Nov 19. PubMed PMID: 33208054; PubMed Central PMCID: PMC8414369.
35. Wagner J, Wickman E, Shaw TI, Anido AA, Langfitt D, Zhang J, Porter SN, Pruett-Miller SM, **Tillman H**, Krenciute G, Gottschalk S. Antitumor Effects of CAR T Cells Redirected to the EDB Splice Variant of

- Fibronectin. *Cancer Immunol Res.* 2021 Mar;9(3):279-290. doi: 10.1158/2326-6066.CIR-20-0280. Epub 2020 Dec 22. PubMed PMID: 33355188; PubMed Central PMCID: PMC7925432.
36. Newby GA, Yen JS, Woodard KJ, Mayuranathan T, Lazzarotto CR, Li Y, **Sheppard-Tillman H**, Porter SN, Yao Y, Mayberry K, Everette KA, Jang Y, Podracky CJ, Thaman E, Lechauve C, Sharma A, Henderson JM, Richter MF, Zhao KT, Miller SM, Wang T, Koblan LW, McCaffrey AP, Tisdale JF, Kalfa TA, Pruett-Miller SM, Tsai SQ, Weiss MJ, Liu DR. Base editing of haematopoietic stem cells rescues sickle cell disease in mice. *Nature.* 2021 Jul;595(7866):295-302. doi: 10.1038/s41586-021-03609-w. Epub 2021 Jun 2. PubMed PMID: 34079130; PubMed Central PMCID: PMC8266759.
 37. Talbot LJ, Chabot A, Funk A, Nguyen P, Wagner J, Ross A, **Tillman H**, Davidoff A, Gottschalk S, DeRenzo C. A Novel Orthotopic Implantation Technique for Osteosarcoma Produces Spontaneous Metastases and Illustrates Dose-Dependent Efficacy of B7-H3-CAR T Cells. *Front Immunol.* 2021;12:691741. doi: 10.3389/fimmu.2021.691741. eCollection 2021. PubMed PMID: 34211478; PubMed Central PMCID: PMC8239305.
 38. Vu LD, Phan ATQ, Hijano DR, Siefker DT, **Tillman H**, Cormier SA. IL-1 β Promotes Expansion of IL-33+ Lung Epithelial Stem Cells after Respiratory Syncytial Virus Infection during Infancy. *Am J Respir Cell Mol Biol.* 2022 Mar;66(3):312-322. doi: 10.1165/rcmb.2021-0313OC. PubMed PMID: 34861136; PubMed Central PMCID: PMC8937243.
 39. Kiger L, Keith J, Freiwan A, Fernandez AG, **Tillman H**, Isakson BE, Weiss MJ, Lechauve C. Redox-Regulation of α -Globin in Vascular Physiology. *Antioxidants (Basel).* 2022 Jan 14;11(1). doi: 10.3390/antiox11010159. PubMed PMID: 35052663; PubMed Central PMCID: PMC8773178.
 40. Patel AG, Chen X, Huang X, Clay MR, Komorova N, Krasin MJ, Pappo A, **Tillman H**, Orr BA, McEvoy J, Gordon B, Blankenship K, Reilly C, Zhou X, Norrie JL, Karlstrom A, Yu J, Wodarz D, Stewart E, Dyer MA. The myogenesis program drives clonal selection and drug resistance in rhabdomyosarcoma. *Dev Cell.* 2022 May 23;57(10):1226-1240.e8. doi: 10.1016/j.devcel.2022.04.003. Epub 2022 Apr 27. PubMed PMID: 35483358; PubMed Central PMCID: PMC9133224.
 41. Zubair A, Chapple RH, Natarajan S, Wright WC, Pan M, Lee HM, **Tillman H**, Easton J, Geeleher P. Cell type identification in spatial transcriptomics data can be improved by leveraging cell-type-informative paired tissue images using a Bayesian probabilistic model. *Nucleic Acids Res.* 2022 Aug 12;50(14):e80. doi: 10.1093/nar/gkac320. PubMed PMID: 35536287; PubMed Central PMCID: PMC9371936.
 42. Machado ER, van de Vlekkert D, **Sheppard H**, Perry S, Downing SM, Laxton J, Ashmun R, Finkelstein DB, Neale GA, Hu H, Harwood FC, Koo SC, Grosveld GC, d'Azzo A. Haploinsufficiency of the lysosomal sialidase NEU1 results in a model of pleomorphic rhabdomyosarcoma in mice. *Commun Biol.* 2022 Sep 20;5(1):992. doi: 10.1038/s42003-022-03968-8. PubMed PMID: 36127469; PubMed Central PMCID: PMC9489700.
 43. Smith KS, Bihannic L, Gudenat BL, Haldipur P, Tao R, Gao Q, Li Y, Aldinger KA, Iskusnykh IY, Chizhikov VV, Scoggins M, Zhang S, Edwards A, Deng M, Glass IA, Overman LM, Millman J, Sjoboen AH, Hadley J, Golser J, Mankad K, **Sheppard H**, Onar-Thomas A, Gajjar A, Robinson GW, Hovestadt V, Orr BA, Patay Z, Millen KJ, Northcott PA. Unified rhombic lip origins of group 3 and group 4 medulloblastoma. *Nature.* 2022 Sep;609(7929):1012-1020. doi: 10.1038/s41586-022-05208-9. Epub 2022 Sep 21. PubMed PMID: 36131015; PubMed Central PMCID: PMC9748853.
 44. Beckett AN, Chockley P, Pruett-Miller SM, Nguyen P, Vogel P, **Sheppard H**, Krenciute G, Gottschalk S, DeRenzo C. CD47 expression is critical for CAR T-cell survival in vivo. *J Immunother Cancer.* 2023 Mar;11(3). doi: 10.1136/jitc-2022-005857. PubMed PMID: 36918226; PubMed Central PMCID: PMC10016274.
 45. Albeituni S, Oak N, **Tillman HS**, Stroh A, Keenan C, Bloom M, Nichols KE. Cellular and transcriptional impacts of Janus kinase and/or IFN-gamma inhibition in a mouse model of primary hemophagocytic lymphohistiocytosis. *Front Immunol.* 2023 Apr 27;14:1137037. doi: 10.3389/fimmu.2023.1137037. PMID: 37228616; PMCID: PMC10204641.
 46. Fang J, Singh S, Cheng C, Natarajan S, **Sheppard H**, Abu-Zaid A, Durbin AD, Lee HW, Wu Q, Steele J, Connelly JP, Jin H, Chen W, Fan Y, Pruett-Miller SM, Rehg JE, Koo SC, Santiago T, Emmons J, Cairo S, Wang R, Glazer ES, Murphy AJ, Chen T, Davidoff AM, Armengol C, Easton J, Chen X, Yang J. Genome-wide mapping of cancer dependency genes and genetic modifiers of chemotherapy in high-risk hepatoblastoma. *Nat Commun.* 2023 Jul 6;14(1):4003. doi: 10.1038/s41467-023-39717-6. PMID: 37414763; PMCID: PMC10326052.
 47. Korff A, Yang X, O'Donovan K, Gonzalez A, Teubner BJ, Nakamura H, Messing J, Yang F, Carisey AF, Wang YD, Patni T, **Sheppard H**, Zakharenko SS, Chook YM, Taylor JP, Kim HJ. A murine model of hnRNPH2-related neurodevelopmental disorder reveals a mechanism for genetic compensation by Hnrnp1. *J Clin Invest.*

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48. Keith J, Christakopoulos GE, Fernandez AG, Yao Y, Zhang J, Mayberry K, Telange R, Sweileh RBA, Dudley M, Westbrook C, **Sheppard H**, Weiss MJ, Lechaue C. Loss of miR-144/451 alleviates β -thalassemia by stimulating ULK1-mediated autophagy of free α -globin. *Blood*. 2023 Sep 7;142(10):918-932. doi: 10.1182/blood.2022017265. Erratum in: *Blood*. 2024 Jan 25;143(4):377. doi: 10.1182/blood.2023023251. PMID: 37339583; PMCID: PMC10517214.
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 51. Ibanez J, Hebbar N, Thanekar U, Yi Z, Houke H, Ward M, Nevitt C, Tian L, Mack SC, **Sheppard H**, Chiang J, Velasquez MP, Krenciute G. GRP78-CAR T cell effector function against solid and brain tumors is controlled by GRP78 expression on T cells. *Cell Rep Med*. 2023 Nov 21;4(11):101297. doi: 10.1016/j.xcrm.2023.101297. PMID: 37992682; PMCID: PMC10694756.
 52. Zoine JT, Immadisetty K, Ibanez-Vega J, Moore SE, Nevitt C, Thanekar U, Tian L, Karouni A, Chockley PJ, Arthur B, **Sheppard H**, Klco JM, Langfitt DM, Krenciute G, Gottschalk S, Babu MM, Velasquez MP. Peptide-scFv antigen recognition domains effectively confer CAR T cell multiantigen specificity. *Cell Rep Med*. 2024 Feb 20;5(2):101422. doi: 10.1016/j.xcrm.2024.101422. Epub 2024 Feb 12. PMID: 38350450; PMCID: PMC10897625.
 53. Meliopoulos V, Honce R, Livingston B, Hargest V, Freiden P, Lazure L, Bringleb PH, Karlsson E, **Sheppard H**, Allen EK, Boyd D, Thomas PG, Schultz-Cherry S. Diet-induced obesity affects influenza disease severity and transmission dynamics in ferrets. *Sci Adv* 10:eadk9137-, 2024. PMCID: PMC11086619 PUBMEDID: 38728395.
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 55. Bell M, Lange S, Sejdiu BI, Ibanez J, Shi H, Sun X, Meng X, Nguyen P, Sutton M, Wagner J, Kc A, Langfitt D, Patil SL, Tan H, Pandey RV, Li Y, Yuan ZF, Anido AA, Ho M, **Sheppard H**, Vogel P, Yu J, Peng J, Chi H, Babu MM, Krenciute G, Gottschalk S. Modular chimeric cytokine receptors with leucine zippers enhance the antitumour activity of CAR T cells via JAK/STAT signalling. *Nat Biomed Eng* 8:380-396, 2024. PMCID: PMC11587785 PUBMEDID: 38036617
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 57. Grant CE, Flis AL, Toulabi L, Zingone A, Rossi E, Aploks K, **Sheppard H**, Ryan BM. DRD1 suppresses cell proliferation and reduces EGFR activation and PD-L1 expression in NSCLC. *Mol Oncol* 18:1631-1648, 2024. PMCID: PMC11161724 PUBMEDID: 38572507.
 58. Keenan C, Albeituni S, Oak N, Stroh A, **Tillman HS**, Wang Y, Freeman BB 3rd, Alemán-Arteaga S, Meyer LK, Woods R, Verbist KC, Zhou Y, Cheng C, Nichols KE. Differential effects of itacitinib, fedratinib, and ruxolitinib in mouse models of hemophagocytic lymphohistiocytosis. *Blood* 143:2386-2400, 2024. PMCID: PMC11450374 PUBMEDID: 38446698.
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65. Ibanez J, Hebbar N, Thanekar U, Yi Z, Houke H, Ward M, Nevitt C, Tian L, Mack SC, **Sheppard H**, Chiang J, Velasquez MP, Krenciute G. Protocol for live-cell imaging of immune synapse formation and activation of CAR T cells against cancer cells. *STAR Protoc* 5:103422-, 2024. PMCID: PMC11566859 PUBMEDID: 39488837.
66. Wang T, Liu L, Fang J, Jin H, Natarajan S, **Sheppard H**, Lu M, Turner G, Confer T, Johnson M, Steinberg J, Ha L, Yadak N, Jain R, Picketts DJ, Ma X, Murphy A, Davidoff AM, Glazer ES, Easton J, Chen X, Wang R, Yang J. Conditional activation of c-MYC in distinct catecholaminergic cells drives development of neuroblastoma or somatostatinoma. *Cancer Res* 85:424-441, 2025. PMCID: PMC11786959 PUBMEDID: 39531507.
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68. Pan M, Zhang Y, Wright WC, Liu X, Passaia B, Currier D, Low J, Chapple RH, Steele JA, Connelly JP, Ju B, Plyler E, Lu M, Loughran AJ, Yang L, Abraham BJ, Pruett-Miller SM, Freeman B 3rd, Campbell GE, Dyer MA, Chen T, Stewart E, Koo S, **Sheppard H**, Easton J, Geeleher P. Bone morphogenetic protein (BMP) signaling determines neuroblastoma cell fate and sensitivity to retinoic acid. *Nat Commun* 16:2036-, 2025. PMCID: PMC11871043 PUBMEDID: 40021625.
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70. Xie J, Mellado-Lagarde MM, Blankenship K, Ganguly D, Twarog NR, Bianski B, Kieffer M, Atkinson S, **Sheppard H**, Gartrell J, Cler S, Federico SM, Stewart EA, Tinkle CL, Shelat AA. The combination of PARP and topoisomerase 1 inhibitors improves radiation therapy for Ewing sarcoma. *Cancer Sci* -, 2025. PMCID: PUBMEDID: 40069935.
71. Beesetti S, Guy C, Sirasanagandla S, Yang M, Sumpter RJ, **Sheppard H**, Pelletier S, Wlodarski MW, Green DR. Distinct developmental outcomes in DNA repair-deficient FANCC c.67delG mutant and FANCC^{-/-} Mice. *Cell Death Differ*. 2025 Jul;32(7):1294-1302. doi: 10.1038/s41418-025-01461-3. Epub 2025 Feb 17. PMID: 39962244; PMCID: PMC12284075.
72. Sekera ER, Kavirayani AM, Johnson P, **Sheppard H**, Kiselev R, Bowling JJ. Creating synergy between established histology methods and newer spatial analysis modalities using fresh frozen tissues. *J Histotechnol*. 2025 Jul 23:1-12. doi: 10.1080/01478885.2025.2530258. Epub ahead of print. PMID: 40697054.
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Size and Immune Response. Clin Cancer Res. 2025 Sep 2;31(17):3754-3770. doi: 10.1158/1078-0432.CCR-24-3083. PMID: 40586675; PMCID: PMC12402791.

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76. O'Reilly C, Tuladhar S, Nguyen P, **Sheppard H**, Koo SC, Chockley P, Houke H, Santiago T, Tian L, Jeschke J, Beckett AN, Chabot A, Yustein J, Krenciute G, Talbot LJ, Gottschalk S, DeRenzo C. LRRC15-CAR T Cells for the Treatment of Osteosarcoma. Clin Cancer Res. 2026 Apr 15;32(8):1557-1573. doi: 10.1158/1078-0432.CCR-24-2335. PMID: 41627173; PMCID: PMC13080327.
77. Whitt KT, Morris DR, Brigleb PH, Rowland L, **Sheppard H**, Schultz-Cherry S. Mice on a high-fat diet have reduced immunopathology and an altered immune response during respiratory syncytial virus infection. mBio. 2026 Apr 30:e0068926. doi: 10.1128/mbio.00689-26. Epub ahead of print. PMID: 42059501.

NON-PEER-REVIEWED

1. Adeshakin AO, Shi H, Perry SS, **Sheppard H**, Nguyen P, Sun X, Zhou P, Métais JY, Cunningham T, Anil KC, Tian L, Peche V, Prater MS, Langfitt DM, Pruett-Miller SM, Yustein JT, Krenciute G, DeRenzo C, Chi H, Gottschalk S. Targeting Regnase-1 unleashes CAR T cell antitumor activity for osteosarcoma and creates a proinflammatory tumor microenvironment. bioRxiv [Preprint]. 2025 May 23:2025.05.20.650777. doi: 10.1101/2025.05.20.650777. PMID: 40475601; PMCID: PMC12139752.
2. Chu M, Wang J, Yarbrow JM, Chen PC, Shrestha HK, Sun H, Niu M, Wang Z, Harvey S, Wu Z, Fu Y, Yuan ZF, Tan H, High AA, Zhang A, Wang X, Lu M, **Sheppard H**, Serrano GE, Beach TG, Yu G, Jiao Y, Peng J. Single Plaque Proteomics Reveals the Composition and Dynamics of the Amyloid Microenvironment in Alzheimer's Disease. bioRxiv [Preprint]. 2026 Feb 4:2026.02.02.703320. doi: 10.64898/2026.02.02.703320. PMID: 41676572; PMCID: PMC12889594.

BOOK CHAPTERS

1. Vogel, P., Janke, L.J. and **Sheppard, H.W.** (2021). Neuromuscular System. In Pathology of Genetically Engineered and Other Mutant Mice (eds J.P. Sundberg, P. Vogel and J.M. Ward). <https://doi.org/10.1002/9781119624608.ch16>
2. **Sheppard, H.W.**, Janke, L.J., Rehag, J.E. and Vogel, P. (2021). Eye and Ear. In Pathology of Genetically Engineered and Other Mutant Mice (eds J.P. Sundberg, P. Vogel and J.M. Ward). <https://doi.org/10.1002/9781119624608.ch22>

PRESENTATIONS

INVITED PRESENTATIONS

1. H. Sheppard. Attenuated rabies virus induced more expression of chemokines in the CNS of mice than pathogenic rabies virus as detected by real time-PCR. Merck-Merial Veterinary Scholars Research Day, University of Georgia, College of Veterinary Medicine, Athens, GA, 07/2005
2. Tillman, I. Langohr. Myofascitis in an Eastern Massasauga Rattlesnake. 28th Annual Meeting of the Midwest Association of Veterinary Pathologists, Marshall, IN, 08/2009
3. H Tillman, JJ Yin, YN Liu, P Hynes and K Kelly. The NFkB pathway is an essential component for lineage commitment in the PbCre4;Ptenfl/fl;Trp53fl/fl Prostate cancer mouse model. 65th ASVCP/ACVP Annual Meeting, Experimental Disease Group, Atlanta, GA, 11/2014
4. H Tillman. Brightfield RNA *in situ* hybridization for investigative pathology studies using formalin fixed paraffin embedded tissues. One day forum on Immunohistochemistry sponsored by the National Society for Histotechnology, Four Points Sheraton, Nashville, TN, 07/2015, *Invited speaker by NSH*.
5. H Tillman. Theory and practical applications for laser microdissection in an experimental pathology laboratory. Workshop #88. 42nd Annual National Society for Histotechnology Annual Symposium/ Conference, Long Beach Convention and Entertainment Center, Long Beach, CA, 09/2016, *Invited speaker by NSH*.
6. H Tillman. When H&E Based Tissue Analyses Are Not Enough: Using Investigative Techniques To Answer Hypothesis-Driven Research Problems. CBT Seminar Series, St. Jude Children's Research Hospital, Memphis, TN, 11/2016, *Invited speaker by Dr. Fatima Rivas*.

7. H Tillman and HA Adissu. Musculoskeletal Pathology: Sternal Dislocation and Secondary Right Ventricular Fibrosis in Mice. Academy of Genomic Pathology Telepathology Rounds, 03/2018
8. HA Adissu, S Knoblough, J Snyder and H Tillman. Musculoskeletal Pathology Rounds, Academy of Genomic Pathology Telepathology Rounds, 04/2018
9. H Tillman. How do immunocompromised mice help us understand human diseases? Comparative Biomedical Scientist Training Program Alumni Symposium, Natcher Center, National Institutes of Health, Bethesda, MD, 11/02/2018, Invited Speaker by Dr. Mark Simpson.
10. H Tillman. Characterization of Spontaneous Lymphomas/Leukemias in NSG Mice. 2018 ACVP/ASVCP Concurrent Annual Meeting, Marriott Wardman Park Hotel, Washington, DC, 11/06/2018
11. H Tillman. Laser Microdissection. Cancer Biology Seminar, St. Jude Children's Research Hospital, Memphis, TN, 11/09/2018
12. H Tillman. Approaches to Characterizing the Effects of Chimeric Antigen Receptor T Cell Therapy for Pediatric Tumors in Mice. ACVP/ASVCP pre-meeting workshop: Mouse models of Immunobiology and Immunotherapies: Emerging Topics and Trends, ACVP/ASVCP Concurrent Annual Meeting, San Antonio Marriott Rivercenter Hotel, San Antonio, TX, 11/09/2019

¥ also a poster presentation

POSTER PRESENTATIONS

1. H. Sheppard. Attenuated rabies virus induced more expression of chemokines in the CNS of mice than pathogenic rabies virus as detected by real time-PCR. Merck-Merial Veterinary Scholars Research Day, University of Georgia, College of Veterinary Medicine, Athens, GA, 07/2005
2. H. Sheppard, B. LeRoy. Characterization of CD3+ and CD79+ Lymphocyte Populations in Normal Canine Prostate and Prostate Carcinoma Samples. ASVCP/ACVP Annual Meeting, Savannah, GA, 11/2007
3. H Tillman, J.C. Zitz, S.J. Birchard, G.C. Couto, V.F. Samii, S.E. Weisbrode, G.S. Young, M. Kiupel. Application and Clinical Relevance of the WHO Histologic Classification System to Canine Thymomas. ASVCP/ACVP Annual Meeting, Diagnostic Pathology Group, Monterey Bay, CA**, 12/2009
4. H Tillman, W. Abou-Kheir, P. Martin, R. Pierce, & K. Kelly. In vitro & in vivo expression of primary cilia in two murine prostate cancer epithelial luminal cell lines & corresponding tissue sections. NIH Comparative Biomedical Scientist Symposium, Bethesda, MD, 09/2010
5. H Tillman, I. Langohr, C. Bliss, M. Rose, S. Woodhouse, A. Duncan. Orbital Cellulitis Caused by Fusobacterium necrophorum Infection in a Red-Necked Wallaby. ASVCP/ACVP Annual Meeting, Natural Disease Group, Baltimore, MD, 11/2010
6. C Tseng*, H Tillman, YN Liu, WG Abou-Kheir, P Martin, K Kelly. Characterization of mouse prostate cancer clonal cell lines responses to TGF β and androgen receptor antagonist. Meril NIH National Veterinary Scholars Symposium, Orlando, FL $\pm$ 08/2011
7. H Tillman, JJ Yin, YN Liu, M Awan, P Martin, and K Kelly. Investigation of the signaling factors involved in Ras/MAPK promoted metastasis in the Pten^{-/-}Trp53^{-/-} mouse model. NIH Comparative Biomedical Sciences Training Symposium, Natcher Conference Center, NIH, Bethesda, MD, 04/2012
8. H Tillman, Deregulation of the Ras Signaling Axis promotes metastasis by the NF κ B pathway in the Pten^{-/-}Trp53^{-/-} prostate cancer mouse model. ASVCP/ACVP Annual Meeting, Experimental Disease Group, Montréal, Canada**, 11/2013
9. H Tillman, JJ Yin, YN Liu, P Hynes, and K Kelly. The NF κ B pathway is an essential component for lineage commitment in the PbCre4;Pten^{fl/fl};Trp53^{fl/fl} Prostate cancer mouse model. 65th ASVCP/ACVP Annual Meeting, Experimental Disease Group, Atlanta, GA, 11/2014
10. Ifenna Amaefuna, Heather Sheppard*, Ruth Wang'ondou, Mathew J. Ehrhardt, Gabriela Gheorghe. B7-H3 and CD70 expression in pediatric ALK+ Anaplastic Large Cell Lymphoma: A single institutional experience. Pathology Research Symposium, St. Jude Children's Research Hospital, I4ARC 8th floor, 04/2025

£ also an oral presentation

**denotes presenter for poster*

*** award received for work*

$\pm$ mentor to presenter

GRANTS AND FUNDING

COMPLETED CO-INVESTIGATOR GRANTS

Title: Dissecting the role of NEU1-dependent de-sialylation in neurodegeneration and neuroinflammation

Major Goals: 1) Elucidate the mechanisms that drive amyloid formation and deposition due to sialic acid retention on AD-related glycoproteins. 2) Test the hypothesis that retention of sialic acids on microglial receptors and signaling proteins alters general microglial functions that lead to neuroinflammation.

Status of Support: Ended

Project Number: 1RF1NS123174-01

Name of PD/PI: D'Azzo-Grosveld, A.

Source of Support: NATIONAL INSTITUTE OF NEUROLOGICAL DISORDERS AND STROKE (NINDS)

Primary Place of Performance: ST. JUDE CHILDRENS RESEARCH HOSPITAL, INC.

Project/Proposal Start and End Date: 07/2021-06/2024

Total Award Amount (including Indirect Costs): \$1,750,578

Person Months (Calendar/Academic/Summer) per budget period:

Year (YYYY)	Person Months (##.##)
1. 2024	0.60 Calendar

Title: Targeting the immunoproteasome as a novel therapeutic strategy for hemophagocytic lymphohistiocytosis

Major Goals: 1) Evaluate the therapeutic and immunologic effects of immunoproteasome inhibition in a model of primary HLH. 2) Evaluate the therapeutic and immunologic effects of immunoproteasome inhibition in a model of secondary HLH.

Status of Support: Ended

Project Number: FP00020523-Res1

Name of PD/PI: Nichols, K.

Source of Support: NATIONAL INSTITUTES OF HEALTH (NIH)

Primary Place of Performance: ST. JUDE CHILDRENS RESEARCH HOSPITAL, INC.

Project/Proposal Start and End Date: 07/2023-06/2026

Total Award Amount (including Indirect Costs): \$500,500

Person Months (Calendar/Academic/Summer) per budget period:

Year (YYYY)	Person Months (##.##)
1. 2024	0.24 Calendar
2. 2025	0.24 Calendar

INSTITUTIONAL ADMINISTRATIVE SERVICE (SJCRH)

2022-2024 Member, Implementation Committee, Center for Spatial Omics,
St. Jude Children's Research Hospital, Memphis, TN

2023-2024 Member, Organizing Committee, 21st Workshop on the Pathology of Mouse Models for Human
Disease
St. Jude Children's Research Hospital, Memphis, TN

PROFESSIONAL SOCIETY AND CONSORTIUM MEMBERSHIPS

MEMBERSHIPS

2008-Present American Veterinary Medical Association, Member

2012-Present American College of Veterinary Pathologists, Diplomate

2015-Present The Society for Toxicologic Pathology, Member
2021-Present The Davis-Thompson Foundation, Member

COMMITTEES AND SERVICE

1. American College of Veterinary Pathologists

- Co-chair, Plenary session on Cellular Plasticity, ACVP/ASVCP Concurrent Annual Meeting, New Orleans, LA, 12/2016
- Annual Meeting Committee, 01/2017-2022
 - Member-at-large, Mystery slide sessions organizer, 03/2017-01/2019
 - Co-chair Mystery slide session on muscle pathology, 11/2018, ACVP/ASVCP Concurrent Annual Meeting, Marriott Washington Wardman Park Hotel, Washington, D.C.
 - Pre-Meeting workshop chair, 01/2019-12/2019
 - Committee chair, 01/2020-12/2020
 - Co-chair, Annual Meeting Contingency Planning Task Force, 04/2020-07/2020
 - Program chair, 01/2021-12/2021
 - Past program chair, 01/2022-12/2022
- Invited session co-chair by Annual Meeting Committee
 - Session co-chair, Concurrent session: “One Pathology.” 2022 ACVP ASVCP Annual Meeting, Westin Boston Seaport District, Boston, Massachusetts, 11/15/2022
 - Session co-chair, Concurrent session, “The Real World of Laboratory Animal Pathology.” 2023 ACVP/ASVCP Annual Meeting, Chicago, Illinois, 11/14/2023

2. Comparative Pathology Special Interest Group of the ACVP, 12/2013 - present

- Executive committee member, 01/2018 – present
 - Organizer, ACVP/ASVCP Pre-meeting workshop: Mouse models of Immunobiology and Immunotherapies: Emerging Topics and Trends, 11/09/2019, ACVP/ASVCP Concurrent Annual Meeting, San Antonio Marriot Rivercenter Hotel, San Antonio, TX
 - Session co-chair, ACVP/ASVCP Pre-meeting workshop, “Contemporary Drug Modalities and Routes: Pathology and Comparative Biology.” 11/11/2023, ACVP/ASVCP Annual Meeting, Chicago Marriot Downtown Magnificent Mile, Chicago, IL
 - Session co-chair, Concurrent session, Updates and Comparative Considerations on Mouse Models of Benign and Malignant Lymphoid and Non-Lymphoid Proliferations, 11/19/2024, ACVP/ASVCP Annual Meeting, Hyatt Regency Seattle, WA
 - Session co-chair, Concurrent session, Practical Pathology and Considerations for Using Severely Immunocompromised Mice in Human Disease Modeling, 10/28/2025, ACVP Annual Meeting, Sheraton New Orleans, New Orleans, LA

3. Society for Toxicologic Pathology

- Education Committee
 - International subcommittee member, 07/2018-07/2020
- Member, Annual Meeting Task Force, 08/2020
- Poster Judge, STP student/resident post award at ACVP and ASVCP Concurrent Annual Meeting, 12/2017
- Molecular Pathology Special Interest Group, Human tissue evaluation working group (IHTPE), 10/2024-Present

4. Journals

Review Editor, Editorial Board, Frontiers in Pediatrics, March 2023-Present

Ad-hoc Reviewer:

- Veterinary Pathology (2015-Present)
- Laboratory Animals (2018-Present)
- ILAR Journal (2018)
- Scientific Reports (2022)
- Journal of Histochemistry and Cytochemistry (2025)

FORMAL EDUCATION/TEACHING/MENTORSHIP ACTIVITIES

Michigan State University, College of Veterinary Medicine, East Lansing, MI

- Resident/Instructor to PDI 630 (Diagnostic Pathology Clerkship) and PDI 631 (Necropsy Clerkship), 08/2008-05/2010
- Teaching Assistant to PDI 553 (General Pathology) and PDI 554 (Systemic Pathology), 08/2008-05/2010

Laboratory of Genitourinary Cancer Pathogenesis, NCI, NIH, Bethesda, MD

- Joy Tseng, CBSTP summer intern, 1st year veterinary student, Cornell University College of Veterinary Medicine, 06/2011
- Jacob Cawley, 2nd year veterinary student, Virginia-Maryland Regional College of Veterinary Medicine, 08/2012-06/2013
- Kamilia Zerrouki, Master of Biotechnology student, Catholic University, 06/2013-12/2013
- Vivian Xu, 3rd year undergraduate student, University of North Carolina, Chapel Hill, 05/2014-08/2014

St. Jude Children's Research Hospital, Memphis, TN

- Science Scholars of Tomorrow Symposium, Tour stop, 02/2016, 02/2017
- Core facilities tour of Veterinary Pathology Core Laboratory for St. Jude Graduate students, St. Jude Children's Research Hospital, Memphis, TN 11/13/2018, 11/05/2019, 11/10/2020, 11/16/2021

Department of Comparative Medicine, University of Tennessee Health Sciences College (UTHSC), Memphis, TN

- Invited Lecturer, Comparative Pathology Slide Conference, Laboratory animal medicine residency program, UTHSC, Department of Comparative Medicine, 2019-2022

National Institutes of Health National Cancer Institute Diversity Career Development Program

- Amy Flis, DVM, DACVP, Molecular Pathology Fellow, NIH Comparative Biomedical Scientist Training Program, Laboratory of Human Carcinogenesis, Laboratory of Dr. Brid Ryan, 05/2022-05/2023

American College of Veterinary Pathologists Mentorship Program

- Rebecca Makii, MS, DVM, DACVP, PhD Candidate (anticipated Fall 2026), Pathology, Colorado State University, Laboratory of Dr. Dan Regan, 05/2025-Present

INVITED EDUCATIONAL LECTURES

The Davis Thompson Foundation, Guest Lecturer

- Pathology of Laboratory Animals (POLA) Course, Pathology of the Mouse, 08/02/2021, virtual seminar
- Pathology of Laboratory Animals (POLA) Course, Pathology of the Mouse, 08/08/2022, virtual seminar
- Pathology of Laboratory Animals (POLA) Course, Pathology of the Mouse, 07/22/2024, virtual seminar
- Pathology of Laboratory Animals (POLA) Course, Pathology of the Mouse, 05/19/2025, virtual seminar

21st Workshop on the Pathology of Mouse Models for Human Disease, Guest Faculty, Lecture Title: Mouse Models of Pediatric Solid and Brain Tumors, 09/10/2024, St. Jude Children's Research Hospital, Memphis, TN

22nd Workshop on the Pathology of Mouse Models for Human Disease, Guest Faculty, Lecture Title: From Workflow to Insight: Practical Outcomes of Comparative Spatial Biology Experiments, 04/22/2026, St. Jude Children's Research Hospital, Memphis, TN