

CURRICULUM VITAE

CHRISTOPHER A. MILLER, PH.D.



DATE: September 11, 2026

CITIZENSHIP: United States of America

**ADDRESS AND
TELEPHONE
NUMBERS:** Campus Box 8501
660 South Euclid Ave,
St. Louis, Missouri 63110

PRESENT POSITION: Associate Professor, Division of Oncology,
Washington University School of Medicine

EDUCATION:

May 2005 B.S. Biology and Computer Science
Truman State University, Kirksville, MO
May 2011 Ph.D. Structural and Computational Biology and Molecular Biophysics Program
Baylor College of Medicine, Houston, TX
Thesis topic: Computational Cancer Genomics

ACADEMIC POSITIONS:

2011-2013 Staff Scientist - Medical Genomics, The Genome Institute
Washington University in St Louis
2013-2017 Cancer Analysis Group Leader, The Genome Institute
Washington University in St Louis
2015-2016 Instructor in Medicine, Division of Genomics and Bioinformatics
Washington University School of Medicine
2016-2022 Assistant Professor in Medicine, Division of Oncology
Washington University School of Medicine
2022-Present Associate Professor in Medicine, Division of Oncology
Washington University School of Medicine

MEDICAL LICENSURE AND BOARD CERTIFICATION:

HONORS AND AWARDS:

EDITORIAL/REVIEW RESPONSIBILITIES:

- NIH Study Section reviewer - MCTB - Mechanisms of Cancer Therapeutics B
- Reviewer for *Bioinformatics*, *Cancer Cell*, *Genome Biology*, *PLoS Computational Biology*, *Nucleic Acids Research*, *Nature Communications*, *Genome Research*, *Blood*, *Cancer Discovery*, *Scientific Data*, *BMC Evolutionary Biology*, *BMC Bioinformatics*, *Journal of Open Source Science*, *et al.*
- Grant reviewer for Dutch Cancer Society (KWF Kankerbestrijding)
- Grant reviewer for Siteman Cancer Center Investment Fund

PROFESSIONAL SOCIETIES:

American Association for Cancer Research
International Society for Computational Biology
Cancer Genomics Consortium

Oral Presentations (conference - title):

- | | |
|------|--|
| 2012 | TCGA Symposium - Assessing Tumor Heterogeneity and Tracking Clonal Evolution Using Whole Genome or Exome Sequencing |
| 2013 | TCGA Steering Committee Meeting - Automatic inference of therapeutically relevant subclones in heterogeneous tumors |
| 2013 | Precision Medicine: Personal Genomes and Pharmacogenomics – SciClone: Inferring clonal architecture and tracking the spatial and temporal patterns of tumor evolution and therapy resistance |
| 2014 | TCGA Symposium - Ultra-deep whole-genome sequencing reveals clinically relevant low-frequency subclones in an acute myeloid leukemia |
| 2015 | Genome Informatics - Assessing tumor heterogeneity and tracking clonal clearance in response to therapy |
| 2016 | Festival of Genomics - Genomic insights into tumor evolution and therapy response |
| 2016 | Genome Informatics - Characterizing genomic responses to cancer immunotherapy |
| 2019 | Genomics in Medicine - Tumor Heterogeneity and Evolution |
| 2020 | Genomics Education Partnership (GEP) Workshop - Sequencing, Variant Calling, and Cancer Genomics |
| 2021 | Institute of Medical Informatics in Münster, Germany - Genomic and Transcriptional evolution of AML at single-cell resolution |
| 2021 | Truman State University Biology Seminar Series - Computational cancer genomics - using "Big Data" to understand how tumors evolve |
| 2023 | Truman State University Computer Science Colloquium - Computer Science in biology: using bioinformatics to understand and treat cancer |
| 2025 | Southern Illinois University Biology Colloquium - Cancer Genomics and Bioinformatics: Using computational methods to better understand and treat AML |

2026	Webster University: Using big data and multi-omics to identify therapeutic opportunities in cancer
2026	Truman State University: Cancer Genomics and Bioinformatics: Using computational methods to better understand and treat AML

RESEARCH SUPPORT:

1 R50 CA211782 (PI)

NIH-NCI

09/01/2017-08/31/2027

Title: Comprehensive informatic analyses of AML genomes and epigenomes

5 R35 CA197561 (Analyst - PI: Ley)

NIH-NCI

08/15/2015 - 06/30/2029

Title: Molecular Pathogenesis of Acute Myeloid Leukemia

TEACHING TITLE AND RESPONSIBILITIES:

2005	Teaching Assistant - Advanced Topics: Quantitative Biology (BCM)
2007-2008	Teaching Assistant - Computer Aided Discovery Methods (BCM)
2008	Teaching Assistant - Computational Mathematics for Biomedical Scientists (BCM)
2015-2017	Lecturer - Investigating Eukaryotic Genomes (WUSTL)
2015-2019	Lecturer - Molecular Basis of Heredity (WUSTL)
2017-2021	Lecturer - Computational Statistical Genetics (WUSTL)
2018	Lecturer - Research Explorations in Genomics (WUSTL)
2019-2021	Lecturer - Human Genetics (WUSTL)
2019	Lecturer - High-Throughput Biology: From Sequence to Networks (CSHL/CBW Course)
2017-	Organizer - Applied Bioinformatics for Genomics I and II (formerly WUSTL Bioinformatics Workshop)
	- full academic year course, developed curriculum, recruited faculty
	- designed lectures on sequencing, informatics, somatic variant calling, bisulfite sequencing and analysis, bash, HPC/LSF/Docker, etc
2021-	Organizer - Computational Cancer Genomics Summer Program for undergraduate/masters students.
2021-	Organizer - Bioinformatics Bootcamp - teaching biology and bioinformatics to undergraduate/masters summer students in a "crash course" format.
2021-	Co-Organizer - Advanced Sequencing Technologies & Bioinformatics Analysis (Cold Spring Harbor Laboratory course)

2023	Truman State University. Invited guest lecture on Bioinformatics
2024	University of Missouri - Rolla. Invited guest lecture on Cancer Genomics and Bioinformatics
2025-	Lecturer - Genomics in Medicine Seminar Series (WUSTL)

TRAINEE RECORD:

Ph.D Thesis Committee member

Katie Campbell	2016-2018
Cody Ramirez	2017-2021
Miller Richters	2019-2023
My Hoang	2024-
Mariam Khanfar	2024-

Mentor to undergraduate research students

Yang Li	2013	Software Engineer at Emory University
Callie Federer	2014	PhD, now scientist at RadiaSoft
Jonas Neichen	2017	Medical Student at Rush Medical College
Megan Neveau	2017	PhD, now DVM student at Iowa State University
Zhaohe Zhao	2020	Instructor, Chengdu University, China
Andrew Li	2021	Software Engineer, Capital One
Payton Redemer	2022	Software Engineer, Garmin
Nguyen Le	2023	Graduate Student, University of Melbourne
Van Grabner	2024	Student at University of Missouri
Brady Maher	2025	Student at UMSL
Tianyi Fu	2025	Staff Scientist at WUSTL

Training and Supervision of WUSTL computational staff, including

Dr. Gue Su Chang	2013-	Cancer Analysis Group, TGI
Dr. Tiandao Li	2013-	Cancer Analysis Group, TGI
Dr. Allegra Petti	2013-16	Cancer Analysis Group, TGI
Dr. Yevgeniy Gindin	2014-15	Cancer Analysis Group, TGI
Dr. Charles Lu	2013-15	Cancer Analysis Group, TGI
Sai Mukund Ramakrishnan	2019-26	AML PPG Core C/Ley Lab Staff

Additional formal and informal bioinformatics training of dozens of internal and external collaborators

BIBLIOGRAPHY:

(* indicates co-first authorship)

1. Cancer Genome Atlas Network. Comprehensive genomic characterization defines human glioblastoma genes and core pathways. *Nature*. 2008 Oct 23;455(7216):1061-8. doi: 10.1038/nature07385. Epub 2008 Sep 4. PMID: 18772890 PMCID: PMC2671642
2. Hampton OA, Den Hollander P, **Miller CA**, Delgado DA, Li J, Coarfa C, Harris RA, Richards S, Scherer SE, Muzny DM, Gibbs RA, Lee AV, Milosavljevic A. A sequence-level map of chromosomal breakpoints in the MCF-7 breast cancer cell line yields insights into the evolution of a cancer genome. *Genome Research*. 2009 Feb;19(2):167-77. doi: 10.1101/gr.080259.108. Epub 2008 Dec 3. PMID: 19056696 PMCID: PMC2652200
3. Coarfa C, Yu F, **Miller CA**, Chen Z, Harris RA, Milosavljevic A. Pash 3.0: A versatile software package for read mapping and integrative analysis of genomic and epigenomic variation using massively parallel DNA sequencing. *BMC Bioinformatics*. 2010 Nov 23;11:572. doi: 10.1186/1471-2105-11-572. PMID: 21092284 PMCID: PMC3001746
4. **Miller CA**, Hampton O, Coarfa C, Milosavljevic A. ReadDepth: a parallel R package for detecting copy number alterations from short sequencing reads. *PLoS One*. 2011 Jan 31;6(1):e16327. doi: 10.1371/journal.pone.0016327. PMID: 21305028 PMCID: PMC3031566
5. **Miller CA**, Settle SH, Sulman EP, Aldape KD, Milosavljevic A. Discovering functional modules by identifying recurrent and mutually exclusive mutational patterns in tumors. *BMC Med Genomics*. 2011 Apr 14;4:34. doi: 10.1186/1755-8794-4-34. PMID: 21489305 PMCID: PMC3102606
6. Hampton OA, Koriabine M, **Miller CA**, Coarfa C, Li J, Den Hollander P, Schoenherr C, Carbone L, Nefedov M, Ten Hallers BF, Lee AV, De Jong PJ, Milosavljevic A. Long-range massively parallel mate pair sequencing detects distinct mutations and similar patterns of structural mutability in two breast cancer cell lines. *Cancer Genet*. 2011 Aug;204(8):447-57. doi: 10.1016/j.cancergen.2011.07.009. PMID: 21962895 PMCID: PMC3185296
7. Parnell LD, Lindenbaum P, Shameer K, Dall'Olio GM, Swan DC, Jensen LJ, Cockell SJ, Pedersen BS, Mangan ME, **Miller CA**, Albert I. BioStar: an online question & answer resource for the bioinformatics community. *PLoS Computational Biology*. 2011 Oct;7(10):e1002216. doi: 10.1371/journal.pcbi.1002216. Epub 2011 Oct 27. PMID: 22046109 PMCID: PMC3203049
8. Ding L, Ley TJ, Larson DE, **Miller CA**, Koboldt DC, Welch JS, Ritchey JK, Young MA, Lamprecht T, McLellan MD, McMichael JF, Wallis JW, Lu C, Shen D, Harris CC, Dooling DJ, Fulton RS, Fulton LL, Chen K, Schmidt H, Kalicki-Veizer J, Magrini VJ, Cook L, McGrath SD, Vickery TL, Wendl MC, Heath S, Watson MA, Link DC, Tomasson MH, Shannon WD, Payton JE, Kulkarni S, Westervelt P, Walter MJ, Graubert TA,

- Mardis ER, Wilson RK, DiPersio JF. Clonal evolution in relapsed acute myeloid leukaemia revealed by whole-genome sequencing. *Nature*. 2012 Jan 11;481(7382):506-10. doi: 10.1038/nature10738. PMID: 22237025 PMCID: PMC3267864
9. Ellis MJ, Ding L, Shen D, Luo J, Suman VJ, Wallis JW, Van Tine BA, Hoog J, Goiffon RJ, Goldstein TC, Ng S, Lin L, Crowder R, Snider J, Ballman K, Weber J, Chen K, Koboldt DC, Kandoth C, Schierding WS, McMichael JF, **Miller CA**, Lu C, Harris CC, McLellan MD, Wendl MC, DeSchryver K, Allred DC, Esserman L, Unzeitig G, Margenthaler J, Babiera GV, Marcom PK, Guenther JM, Leitch M, Hunt K, Olson J, Tao Y, Maher CA, Fulton LL, Fulton RS, Harrison M, Oberkfell B, Du F, Demeter R, Vickery TL, Elhammali A, Piwnica-Worms H, McDonald S, Watson M, Dooling DJ, Ota D, Chang LW, Bose R, Ley TJ, Piwnica-Worms D, Stuart JM, Wilson RK, Mardis ER. Whole-genome analysis informs breast cancer response to aromatase inhibition. *Nature*. 2012 Jun 10;486(7403):353-60. doi: 10.1038/nature11143. PMID: 22722193; PMCID: PMC3383766.
 10. Koboldt DC, Zhang Q, Larson DE, Shen D, McLellan MD, Lin L, **Miller CA**, Mardis ER, Ding L, Wilson RK. VarScan 2: Somatic mutation and copy number alteration discovery in cancer by exome sequencing. 2012 Mar;22(3):568-76. doi: 10.1101/gr.129684.111. Epub 2012 Feb 2. PMID: 22300766 PMCID: PMC3290792
 11. Young MA, Larson DE, Sun CW, George DR, Ding L, **Miller CA**, Lin L, Pawlik KM, Chen K, Fan X, Schmidt H, Kalicki-Veizer J, Cook LL, Swift GW, Demeter RT, Wendl MC, Sands MS, Mardis ER, Wilson RK, Townes TM, Ley TJ. Background mutations in parental cells account for most of the genetic heterogeneity of induced pluripotent stem cells. 2012 May 4;10(5):570-82. doi: 10.1016/j.stem.2012.03.002. Epub 2012 Apr 26. PMID: 22542160 PMCID: PMC3348423
 12. Welch JS*, Ley TJ*, Link DC*, **Miller CA**, Larson DE, Koboldt DC, Wartman LD, Lamprecht TL, Liu F, Xia J, Kandoth C, Fulton RS, McLellan MD, Dooling DJ, Wallis JW, Chen K, Harris CC, Schmidt HK, Kalicki-Veizer JM, Lu C, Zhang Q, Lin L, O'Laughlin MD, McMichael JF, Delehaunty KD, Fulton LA, Magrini VJ, McGrath SD, Demeter RT, Vickery TL, Hundal J, Cook LL, Swift GW, Reed JP, Alldredge PA, Wylie TN, Walker JR, Watson MA, Heath SE, Shannon WD, Varghese N, Nagarajan R, Payton JE, Baty JD, Kulkarni S, Kico JM, Tomasson MH, Westervelt P, Walter MJ, Graubert TA, DiPersio JF, Ding L, Mardis ER, Wilson RK. The Origin and Evolution of Mutations in Acute Myeloid Leukemia. 2012 Jul 20;150(2):264-78. doi: 10.1016/j.cell.2012.06.023. PMID: 22817890 PMCID: PMC3407563
 13. The Cancer Genome Atlas Research Network. Genomic and Epigenomic Landscapes of Adult De Novo Acute Myeloid Leukemia. 2013 May 30;368(22):2059-74. doi: 10.1056/NEJMoa1301689. Epub 2013 May 1. PMID: 23634996 PMCID: PMC3767041

14. Walter MJ, Shen D, Shao J, Ding L, White BS, Kandoth C, **Miller CA**, Niu B, McLellan MD, Dees ND, Fulton R, Elliot K, Heath S, Grillo M, Westervelt P, Link DC, DiPersio JF, Mardis E, Ley TJ, Wilson RK, Graubert TA. 2013 Jun;27(6):1275-82. doi: 10.1038/leu.2013.58. Epub 2013 Feb 27. PMID: 23443460 PMCID: PMC3736571
15. Gutmann DH, McLellan MD, Hussain I, Wallis JW, Fulton LL, Fulton RS, Magrini V, Demeter R, Wylie T, Kandoth C, Leonard JR, Guha A, **Miller CA**, Ding L, Mardis ER. Somatic neurofibromatosis type 1 (NF1) inactivation characterizes NF1-associated pilocytic astrocytoma. 2013 Mar;23(3):431-9. doi: 10.1101/gr.142604.112. Epub 2012 Dec 5. PMID: 23222849 PMCID: PMC3589532
16. Li S, Shen D, Shao J, Crowder R, Liu W, Prat A, He X, Liu S, Hoog J, Lu C, Ding L, Griffith OL, **Miller CA**, Larson D, Fulton RS, Harrison M, Mooney T, McMichael JF, Luo J, Tao Y, Goncalves R, Schlosberg C, Hiken JF, Saied L, Sanchez C, Giuntoli T, Bumb C, Cooper C, Kitchens RT, Lin A, Phommaly C, Davies SR, Zhang J, Kavuri MS, McEachern D, Dong YY, Ma C, Pluard T, Naughton M, Bose R, Suresh R, McDowell R, Michel L, Aft R, Gillanders W, DeSchryver K, Wilson RK, Wang S, Mills GB, Gonzalez-Angulo A, Edwards JR, Maher C, Perou CM, Mardis ER, Ellis MJ. Endocrine-Therapy-Resistant ESR1 Variants Revealed by Genomic Characterization of Breast-Cancer-Derived Xenografts. *Cell Reports*. 2013 Sep 26;4(6):1116-30. doi: 10.1016/j.celrep.2013.08.022. Epub 2013 Sep 19. PMID: 24055055 PMCID: PMC3881975
17. Griffith M, Griffith OL, Coffman AC, Weible JV, McMichael JF, Spies NC, Koval J, Das I, Callaway MB, Eldred JM, **Miller CA**, Subramanian J, Govindan R, Kumar RD, Bose R, Ding L, Walker JR, Larson DE, Dooling DJ, Smith SM, Ley TJ, Mardis ER, Wilson RK. DGIdb: mining the druggable genome. *Nature Methods*. 2013 Dec;10(12):1209-10. doi: 10.1038/nmeth.2689. Epub 2013 Oct 13. PMID: 24122041 PMCID: PMC3851581
18. The Cancer Genome Atlas Network. The cancer genome atlas pan-cancer analysis project. *Nature Genetics*. 2013. doi:10.1038/ng.2764. PMID: 25936886 PMCID: PMC6000284
19. Kandoth C, McLellan MD, Vandin F, Ye K, Niu B, Lu C, Xie M, Zhang Q, McMichael JF, Wyczalkowski MA, Leiserson MD, **Miller CA**, Welch JS, Walter MJ, Wendl MC, Ley TJ, Wilson RK, Raphael BJ, Ding L. Mutational landscape and significance across 12 major cancer types. *Nature*. 2013 Oct 17;502(7471):333-339. doi: 10.1038/nature12634. PMID: 24132290 PMCID: PMC3927368
20. **Miller CA**, Wilson RK, Ley TJ. Response to 'Genomic Landscapes and Clonality of De Novo AML'. *New England Journal Of Medicine*. 2013 Oct 10;369(15):1473. doi: 10.1056/NEJMc1308782. PMID: 24106950 PMCID: PMC4374653

21. Kanchi KL, Johnson KJ, Lu C, McLellan MD, Leiserson MD, Wendl MC, Zhang Q, Koboldt DC, Xie M, Kandoth C, McMichael JF, Wyczalkowski MA, Larson DE, Schmidt HK, **Miller CA**, Fulton RS, Spellman PT, Mardis ER, Druley TE, Graubert TA, Goodfellow PJ, Raphael BJ, Wilson RK, Ding L. Integrated analysis of germline and somatic variants in ovarian cancer. *Nature Communications*. 2014;5:3156. doi: 10.1038/ncomms4156. PMID: 24448499 PMCID: PMC4025965
22. Kline JM, Spencer DH, **Miller CA**, Griffith M, Lamprecht TL, O'Laughlin M, Fronick C, Magrini V, Demeter RT, Fulton RS, Eades WC, Link DC, Graubert TA, Walter MJ, Mardis ER, Diersio JF, Wilson RK, Ley TJ. Functional Heterogeneity of Genetically Defined Subclones in Acute Myeloid Leukemia. *Cancer Cell*. 2014 Mar 17;25(3):379-92. doi: 10.1016/j.ccr.2014.01.031. Epub 2014 Mar 6. PMID: 24613412 PMCID: PMC3983786
23. Russler-Germain DA, Spencer DH, Young MA, Lamprecht TL, **Miller CA**, Fulton R, Meyer MR, Erdmann-Gilmore P, Townsend RR, Wilson RK, Ley TJ. The R882H DNMT3A mutation associated with AML dominantly inhibits wild-type DNMT3A by blocking its ability to form active tetramers. *Cancer Cell*. 2014 Apr 14;25(4):442-54. doi: 10.1016/j.ccr.2014.02.010. Epub 2014 Mar 20. PMID: 24656771 PMCID: PMC4018976
24. Hughes AE, Magrini V, Demeter R, **Miller CA**, Fulton R, Fulton LL, Eades WC, Elliott K, Heath S, Westervelt P, Ding L, Conrad DF, White BS, Shao J, Link DC, DiPersio JF, Mardis ER, Wilson RK, Ley TJ, Walter MJ, Graubert TA. Clonal architecture of secondary acute myeloid leukemia defined by single-cell sequencing. *PLoS Genetics*. 2014 Jul 10;10(7):e1004462. doi: 10.1371/journal.pgen.1004462. eCollection 2014 Jul. PMID: 25010716 PMCID: PMC4091781
25. Cancer Genome Atlas Research Network. Comprehensive molecular profiling of lung adenocarcinoma. *Nature*. 2014 Jul 31;511(7511):543-50. doi: 10.1038/nature13385. PMID: 25079552; PMCID: PMC4231481.
26. **Miller CA***, White BS*, Dees ND, Griffith M, Welch JS, Griffith OL, Vij R, Tomasson MH, Graubert TA, Walter MJ, Ellis MJ, Schierding W, DiPersio JF, Ley TJ, Mardis ER, Wilson RK, Ding L. Sciclone: Inferring clonal architecture and tracking the spatial and temporal patterns of tumor evolution. *PLoS Computational Biology*. 2014 Aug 7;10(8):e1003665. doi: 10.1371/journal.pcbi.1003665. eCollection 2014 Aug. PMID: 25102416 PMCID: PMC4125065
27. Engle E, Fisher D, **Miller CA**, McLellan M, Fulton R, Moore D, Wilson R, Ley T, Oh S. Clonal evolution revealed by whole genome sequencing in a case of primary myelofibrosis transformed to secondary acute myeloid leukemia. *Leukemia*. 2015 Apr;29(4):869-76. doi: 10.1038/leu.2014.289. Epub 2014 Sep 25. PMID: 25252869 PMCID: PMC4374044

28. Spencer DH, Young MA, Lamprecht TL, Helton NM, Fulton R, O'Laughlin M, Fronick C, Magrini V, Demeter RT, **Miller CA**, Klco JM, Wilson RK, Ley TJ. Epigenomic analysis of the HOX gene loci reveals mechanisms that may control canonical expression patterns in AML and normal hematopoietic cells. *Leukemia*. 2015 Jun;29(6):1279-89. doi: 10.1038/leu.2015.6. Epub 2015 Jan 20. PMID: 25600023 PMCID: PMC4456213
29. Ding L, Kim M, Kanchi KL, Dees ND, Lu C, Griffith M, Fenstermacher D, Sung H, **Miller CA**, Goetz B, Wendl MC, Griffith O, Cornelius LA, Linette GP, McMichael JF, Sondak VK, Fields RC, Ley TJ, Mulé JJ, Wilson RK, Weber JS. Clonal Architectures and Driver Mutations in Metastatic Melanomas. *PLoS One*. 2014 Nov 13;9(11):e1111153. doi: 10.1371/journal.pone.0111153. eCollection 2014. PMID: 25393105 PMCID: PMC4230926
30. Lu EP, McLellan M, Ding L, Fulton R, Mardis ER, Wilson RK, **Miller CA**, Westervelt P, DiPersio JF, Link DC, Walter MJ, Ley TJ, Graubert TA. Caspase 9 is required for normal hematopoietic development and protection from alkylator-induced DNA damage in mice. *Blood*. 2014 Dec 18;124(26):3887-95. doi: 10.1182/blood-2014-06-582551. Epub 2014 Oct 27. PMID: 25349173 PMCID: PMC4271179
31. Xie M, Lu C, Wang J, McLellan MD, Johnson KJ, Wendl MC, McMichael JF, Schmidt HK, Yellapantula V, **Miller CA**, Ozenberger BA, Welch JS, Link DC, Walter MJ, Mardis ER, DiPersio JF, Chen F, Wilson RK, Ley TJ, Ding L. Age-related mutations associated with clonal hematopoietic expansion and malignancies. *Nature Medicine*. 2014 Dec;20(12):1472-8. doi: 10.1038/nm.3733. Epub 2014 Oct 19. PMID: 25326804 PMCID: PMC4313872
32. Celik H, Mallaney C, Kothari A, Ostrander E, Eultgen E, Martens A, **Miller CA**, Hundal J, Klco J, Challen G. Enforced differentiation of Dnmt3a-null bone marrow leads to failure with c-Kit mutations driving leukemic transformation. *Blood*. 2015 Jan 22;125(4):619-28. doi: 10.1182/blood-2014-08-594564. PMID: 25416276 PMCID: PMC4304107
33. Wong TN*, Ramsingh G*, Young AL*, **Miller CA**, Touma W, Welch JS, Lamprecht TL, Shen D, Hundal J, Fulton RS, Heath S, Baty JD, Klco JM, Ding L, Mardis ER, Westervelt P, DiPersio JF, Walter MJ, Graubert TA, Ley TJ, Druley TE, Link DC, Wilson RK. Role of TP53 mutations in the origin and evolution of therapy-related acute myeloid leukaemia. *Nature*. 2015 Feb 26;518(7540):552-555. doi: 10.1038/nature13968. Epub 2014 Dec 8. PMID: 25487151 PMCID: PMC4403236
34. Li C, Klco JM, Helton NM, George DR, Mudd JL, **Miller CA**, Lu C, Fulton R, O'Laughlin M, Fronick C, Wilson RK, Ley TJ. Genetic heterogeneity of induced pluripotent stem cells: results from 24 clones derived from a single C57BL/6 mouse. *PloS one*. 2015 Mar 23;10(3):e0120585. doi: 10.1371/journal.pone.0120585. eCollection 2015. PMID: 25799070 PMCID: PMC4370741

35. Griffith M, Griffith OL, Smith SM, Ramu A, Callaway MB, Brummett AM, Kiwala MJ, Coffman AC, Regier AA, Oberkfell BJ, Sanderson GE, Mooney TP, Nutter NG, Belter EA, Du F, Long RL, Abbott TE, Ferguson IT, Morton DL, Burnett MM, Weible JV, Peck JB, Dukes A, McMichael JF, Lolofie JT, Derickson BR, Hundal J, Skidmore ZL, Ainscough BJ, Dees ND, Schierding WS, Kandoth C, Kim KH, Lu C, Harris CC, Maher N, Maher CA, Magrini VJ, Abbott BS, Chen K, Clark E, Das I, Fan X, Hawkins AE, Hepler TG, Wylie TN, Leonard SM, Schroeder WE, Shi X, Carmichael LK, Weil MR, Wohlstadter RW, Stiehr G, McLellan MD, Pohl CS, **Miller CA**, Koboldt DC, Walker JR, Eldred JM, Larson DE, Dooling DJ, Ding L, Mardis ER, Wilson RK. Genome Modeling System: A Knowledge Management Platform for Genomics. *PLoS computational biology*. 2015 Jul 9;11(7):e1004274. doi: 10.1371/journal.pcbi.1004274. eCollection 2015 Jul. PMID: 26158448 PMCID: PMC4497734
36. Klcó JM*, **Miller CA***, Griffith M, Petti A, Spencer DH, Ketkar-Kulkarni S, Wartman LD, Christopher M, Lamprecht TL, Helton NM, Duncavage EJ, Payton JE, Baty J, Heath SE, Griffith OL, Shen D, Hundal J, Chang GS, Fulton R, O'Laughlin M, Fronick C, Magrini V, Demeter RT, Larson DE, Kulkarni S, Ozenberger BA, Welch JS, Walter MJ, Graubert TA, Westervelt P, Radich JP, Link DC, Mardis ER, DiPersio JF, Wilson RK, Ley TJ. Association Between Mutation Clearance After Induction Therapy and Outcomes in Acute Myeloid Leukemia. *Jama*. 2015 Aug 25;314(8):811-22. doi: 10.1001/jama.2015.9643. PMID: 26305651 PMCID: PMC4621257
37. Hirbe AC, Dahiya S, **Miller CA**, Li T, Fulton RS, Zhang X, McDonald S, DeSchryver K, Duncavage EJ, Walrath J, Reilly KM, Abel HJ, Pekmezci M, Perry A, Ley TJ, Gutmann DH. Whole exome sequencing reveals the order of genetic changes during malignant transformation and metastasis in a single patient with NF1-plexiform neurofibroma. *Clinical Cancer Research*. 2015 Sep 15;21(18):4201-11. doi: 10.1158/1078-0432.CCR-14-3049. Epub 2015 Apr 29. PMID: 25925892 PMCID: PMC4573781
38. Griffith M*, **Miller CA***, Griffith OL, Krysiak K, Skidmore ZL, Ramu A, Walker JR, Dang HX, Trani L, Larson DE, Demeter RT, Wendl MC, McMichael JF, Austin RE, Magrini V, McGrath SD, Ly A, Kulkarni S, Cordes MG, Fronick CC, Fulton RS, Maher CA, Ding L, Klcó JM, Mardis ER, Ley TJ, Wilson RK. Optimizing Cancer Genome Sequencing and Analysis. *Cell Systems*. 2015 Sep 23;1(3):210-223. doi: 10.1016/j.cels.2015.08.015. PMID: 26645048 PMCID: PMC4669575
39. Churpek JE, Pyrtel K, Kanchi KL, Shao J, Koboldt D, **Miller CA**, Shen D, Fulton R, O'Laughlin M, Fronick C, Pusic I, Uy GL, Braunstein EM, Levis M, Ross J, Elliott K, Heath S, Jiang A, Westervelt P, DiPersio JF, Link DC, Walter MJ, Welch J, Wilson R, Ley TJ, Godley LA, Graubert TA. Genomic analysis of germ line and somatic variants in familial myelodysplasia/acute myeloid leukemia. *Blood*. 2015 Nov 26;126(22):2484-90.

doi: 10.1182/blood-2015-04-641100. Epub 2015 Oct 22. PMID: 26492932 PMCID: PMC4661171

40. Lu C, Xie M, Wendl MC, Wang J, McLellan MD, Leiserson MD, Huang KL, Wyczalkowski MA, Jayasinghe R, Banerjee T, Ning J, Tripathi P, Zhang Q, Niu B, Ye K, Schmidt HK, Fulton RS, McMichael JF, Batra P, Kandoth C, Bharadwaj M, Koboldt DC, **Miller CA**, Kanchi KL, Eldred JM, Larson DE, Welch JS, You M, Ozenberger BA, Govindan R, Walter MJ, Ellis MJ, Mardis ER, Graubert TA, Dpersio JF, Ley TJ, Wilson RK, Goodfellow PJ, Raphael BJ, Chen F, Johnson KJ, Parvin JD, Ding L. Patterns and functional implications of rare germline variants across 12 cancer types. *Nature Communications*. 2015 Dec 22;6:10086. doi: 10.1038/ncomms10086. PMID: 26689913 PMCID: PMC4703835
41. Wong TN, **Miller CA**, Klco JM, Petti A, Demeter R, Helton NM, Li T, Fulton RS, Heath SE, Mardis ER, Westervelt P, DiPersio JF, Walter MJ, Welch JS, Graubert TA, Wilson RK, Ley TJ, Link DC. Rapid expansion of preexisting nonleukemic hematopoietic clones frequently follows induction therapy for de novo AML. *Blood*. 2016 Feb 18;127(7):893-7. doi: 10.1182/blood-2015-10-677021. Epub 2015 Dec 2. PMID: 26631115 PMCID: PMC4760092
42. Lu C, Riedell P, **Miller CA**, Hagemann IS, Westervelt P, Ozenberger BA, O'Laughlin M, Magrini V, Demeter RT, Duncavage EJ, Griffith M, Griffith OL, Wartman LD. A common founding clone with TP53 and PTEN mutations gives rise to a concurrent germ cell tumor and acute megakaryoblastic leukemia. *Molecular Case Studies*. 2016 Jan;2(1):a000687. doi: 10.1101/mcs.a000687. PMID: 27148581 PMCID: PMC4849848
43. Krysiak K, Christopher MJ, Skidmore ZL, Demeter RT, Magrini V, Kunisaki J, O'Laughlin M, Duncavage EJ, **Miller CA**, Ozenberger BA, Griffith M, Wartman LD, Griffith OL. A genomic analysis of Philadelphia chromosome-negative AML arising in patients with CML. *Blood Cancer Journal*. 2016 Apr 8;6(4):e413. doi: 10.1038/bcj.2016.18. PMID: 27058228 PMCID: PMC4855253
44. Griffith M, Griffith OL, Krysiak K, Skidmore ZL, Christopher MJ, Klco JM, Ramu A, Lamprecht TL, Wagner AH, Campbell KM, Lesurf R, Hundal J, Zhang J, Spies NC, Ainscough BJ, Larson DE, Heath SE, Fronick C, O'Laughlin S, Fulton RS, Magrini V, McGrath S, Smith SM, **Miller CA**, Maher CA, Payton JE, Walker JR, Eldred JM, Walter MJ, Link DC, Graubert TA, Westervelt P, Kulkarni S, DiPersio JF, Mardis ER, Wilson RK, Ley TJ. Comprehensive genomic analysis reveals FLT3 activation and a therapeutic strategy for a patient with relapsed adult B-lymphoblastic leukemia. *Experimental Hematology*. 2016 Jul;44(7):603-13. doi: 10.1016/j.exphem.2016.04.011. Epub 2016 May 13. PMID: 27181063 PMCID: PMC4914477

45. Purkait S, **Miller CA**, Kumar A, Sharma V, Pathak P, Jha P, Sharma MC, Suri V, Suri A, Sharma BS, Fulton RS, Kale SS, Dahiya S, Sarkar C. ATRX in diffuse gliomas with its mosaic/heterogeneous expression in a subset. *Brain Pathol.* 2017 Mar;27(2):138-145. doi: 10.1111/bpa.12364. Epub 2016 Jun 13. PMID: 26833422 PMCID: PMC8029305
46. **Miller CA**, Gindin Y, Lu C, Griffith OL, Griffith M, Shen D, Hoog J, Li T, Larson DE, Watson M, Davies SR, Hunt K, Suman VJ, Snider J, Walsh T, Colditz GA, DeSchryver K, Wilson RK, Mardis ER, Ellis MJ. Aromatase inhibition remodels the clonal architecture of estrogen-receptor-positive breast cancers. *Nature Communications.* 2016 Aug 9;7:12498. doi: 10.1038/ncomms12498. PMID: 27502118 PMCID: PMC4980485
47. Gellert P, Segal CV, Gao Q, Lopez-Knowles E, Martin L, Dodson A, Li T, **Miller CA**, Lu C, Mardis ER, Gillman A, Morden J, Graf M, Sidhu K, Sidhu K, Evans A, Shere M, Holcombe C, McIntosh SA, Bundred N, Skene A, Maxwell W, Robertson J, Bliss JM, Smith I, Dowsett M. Impact of mutational profiles on response of primary oestrogen receptor-positive breast cancers to oestrogen deprivation. *Nature Communications.* 2016 Nov 9;7:13294. doi: 10.1038/ncomms13294. PMID: 27827358 PMCID: PMC5105193
48. Duncavage E, O'Brien J, Vij K, **Miller CA**, Chang G, Shao J, Jacoby M, Heath S, Janke M, Elliott K, Fulton RS, Fronick C, O'Laughlin M, Westervelt P, Ley TJ, Wilson RK, Walter MJ. Targeted sequencing informs the evaluation of normal karyotype cytopenic patients for low-grade myelodysplastic syndrome. *Leukemia.* 2016 Dec;30(12):2422-2426. doi: 10.1038/leu.2016.247. Epub 2016 Aug 30. PMID: 27573557 PMCID: PMC5218820
49. Griffith OL, Chan SR, Griffith M, Krysiak K, Skidmore ZL, Hundal J, Allen JA, Arthur CD, Runci D, Bugatti M, Miceli AP, Schmidt H, Trani L, Kanchi KL, **Miller CA**, Larson DE, Fulton RS, Vermi W, Wilson RK, Schreiber RD, Mardis ER. Truncating Prolactin Receptor Mutations Promote Tumor Growth in Murine Estrogen Receptor-Alpha Mammary Carcinomas. *Cell Reports.* 2016 Sep 27;17(1):249-260. doi: 10.1016/j.celrep.2016.08.076. PMID: 27681435 PMCID: PMC5557050
50. Hundal J, **Miller CA**, Griffith M, Griffith OL, Walker J, Kiwala S, Graubert A, McMichael J, Coffman A, Mardis ER. Cancer immunogenomics: computational neoantigen identification and vaccine design. *Cold Spring Harb Symp Quant Biol.* 2016;81:105-111. doi: 10.1101/sqb.2016.81.030726. Epub 2017 Apr 7. PMID: 28389595 PMCID: PMC5702270
51. Johanns TM*, **Miller CA***, Dorward IG, Tsien C, Chang E, Perry A, Uppaluri R, Ferguson C, Schmidt RE, Dahiya S, Ansstas G, Mardis ER, Dunn GP. Immunogenomics of Hypermutated Glioblastoma: A Patient with Germline POLE

Deficiency Treated with Checkpoint Blockade Immunotherapy. *Cancer Discovery*. 2016 Nov;6(11):1230-1236. doi: 10.1158/2159-8290.CD-16-0575. Epub 2016 Sep 28. PMID: 27683556 PMCID: PMC5140283

52. **Miller CA**, McMichael J, Dang HX, Maher CA, Ding L, Ley TJ, Mardis ER, Wilson RK. Visualizing tumor evolution with the fishplot package for R. *BMC Genomics*. 2016 Nov 7;17(1):880. doi: 10.1186/s12864-016-3195-z. PMID: 27821060 PMCID: PMC5100182
53. Welch JS, Petti AA, **Miller CA**, Fronick CC, O'Laughlin M, Fulton RS, Wilson RK, Baty JD, Duncavage EJ, Tandon B. TP53 and Decitabine in Acute Myeloid Leukemia and Myelodysplastic Syndromes. *New England Journal Of Medicine*. 2016 Nov 24;375(21):2023-2036. doi: 10.1056/NEJMoa1605949. PMID: 27959731 PMCID: PMC5217532
54. Johanns TM, Ward JP, **Miller CA**, Wilson C, Kobayashi DK, Bender D, Fu Y, Alexandrov A, Mardis ER, Artyomov MN, Schreiber RD, and Dunn GP. Endogenous Neoantigen-Specific CD8 T Cells Identified in Two Glioblastoma Models Using a Cancer Immunogenomics Approach. *Cancer Immunology Research*. 2016 Dec;4(12):1007-1015. doi: 10.1158/2326-6066.CIR-16-0156. Epub 2016 Oct 31. PMID: 27799140 PMCID: PMC5215735
55. Hoadley KA, Siegel MB, Kanchi KL, **Miller CA**, Ding L, Zhao W, He X, Parker JS, Wendl MC, Fulton RS, Demeter RT, Wilson RK, Carey LA, Perou CM, Mardis ER. Tumor Evolution in Two Patients with Basal-like Breast Cancer: A Retrospective Genomics Study of Multiple Metastases. *PLoS Medicine*. 2016 Dec 6;13(12):e1002174. doi: 10.1371/journal.pmed.1002174. eCollection 2016 Dec. PMID: 27923045 PMCID: PMC5140046
56. Krysiak K, Gomez F, White BS, Matlock M, **Miller CA**, Trani L, Fronick CC, Fulton RS, Kreisel F, Cashen AF, Carson KR, Berrien-Elliott MM, Bartlett NL, Griffith M, Griffith OL, Fehniger TA. Recurrent somatic mutations affecting B-cell receptor signaling pathway genes in follicular lymphoma. *Blood*. 2017 Jan 26;129(4):473-483. doi: 10.1182/blood-2016-07-729954. Epub 2016 Nov 14. PMID: 28064239 PMCID: PMC5270390
57. Duncavage EJ, Uy GL, Petti AA, **Miller CA**, Lee Y, Tandon B, Gao F, Fronick CC, O'Laughlin M, Fulton RS, Wilson RK, Jacoby MJ, Cashen AF, Wartman LD, Walter MJ, Westervelt P, Link DC, DiPersio JF, Ley TJ, and Welch JS. Mutational landscape and response are conserved in peripheral blood of AML and MDS patients during decitabine therapy. *Blood*. 2017 Mar 9;129(10):1397-1401. doi: 10.1182/blood-2016-10-745273. Epub 2017 Jan 12. PMID: 28082444 PMCID: PMC5345736
58. Uy GL, Duncavage EJ, Chang GS, Jacoby MA, **Miller CA**, Shao J, Heath S, Elliott K, Reinick T, Fulton RS, Fronick CC, O'Laughlin M, Ganel L, Abboud CN, Cashen AF, DiPersio JF, Wilson RK, Link DC, Welch JS, Ley TJ, Graubert TA, Westervelt P, Walter

- MJ. Dynamic changes in the clonal structure of MDS and AML in response to epigenetic therapy. *Leukemia*. 2017 Apr;31(4):872-881. doi: 10.1038/leu.2016.282. Epub 2016 Oct 14. PMID: 27740633 PMCID: PMC5382101
59. Zhang X, Kim S, Hundal J, Herndon JM, Li S, Petti AA, Soysal SD, Li L, McLellan MD, Hoog J, Primeau T, Myers N, Vickery TL, Sturmoski M, Hagemann IS, **Miller CA**, Ellis MJ, Mardis ER, Hansen T, Fleming TP, Goedegebuure P, Gillanders WE. Breast cancer neoantigens can induce CD8 T cell responses and antitumor immunity. *Cancer Immunology Research*. 2017 Jul;5(7):516-523. doi: 10.1158/2326-6066.CIR-16-0264. Epub 2017 Jun 15. PMID: 28619968 PMCID: PMC5647648
 60. Cole CB, Russler-Germain DA, Ketkar S, Verdoni AM, Smith AM, Bangert CV, Helton NM, Guo M, Klco JM, O'Laughlin S, Fronick C, Fulton RS, Chang GS, Petti AA, **Miller CA**, Ley TJ. Haploinsufficiency for DNA methyltransferase 3A predisposes hematopoietic cells to myeloid malignancies *The Journal Of Clinical Investigation*. 2017 Oct 2;127(10):3657-3674. doi: 10.1172/JCI93041. Epub 2017 Sep 5. PMID: 28872462 PMCID: PMC5617681
 61. Zhang J, Griffith M, **Miller CA**, Griffith OL, Spencer DH, Walker J, Magrini V, McGrathSD, Ly A, Helton NM, Trissal Maria, Link DC, Dang HX, Larson DE, Kulkarni S, Cordes MG, Fronick C, Fulton RS, Klco JM, Mardis ER, Ley TJ, Wilson RK, Maher CA. Comprehensive Discovery of non-coding RNAs in acute myeloid leukemia cell transcriptomes. *Experimental Hematology*. 2017 Nov;55:19-33. doi: 10.1016/j.exphem.2017.07.008. Epub 2017 Jul 28. PMID: 28760689 PMCID: PMC5772960
 62. The Cancer Genome Atlas Network. Comprehensive and Integrated Genomic Characterization of Adult Soft Tissue Sarcomas. *Cell*. 2017 Nov 2;171(4):950-965.e28. doi: 10.1016/j.cell.2017.10.014. PMID: 29100075 PMCID: PMC5693358
 63. Dang H, White B, Foltz S, **Miller CA**, Luo J, Fields R, Maher C. ClonEvol: clonal ordering and visualization in cancer sequencing. *Annals Of Oncology*. 2017 Dec 1;28(12):3076-3082. doi: 10.1093/annonc/mdx517. PMID: 28950321 PMCID: PMC5834020
 64. Grigsby P, Elhammali A, Ruiz F, Markovina S, McLellan MD, **Miller CA**, Chundury A, Ta NL, Rashmi R, Pfeifer JD, Fulton RS, DeWees T, Schwarz JK. Clinical outcomes and differential effects of PI3K pathway mutation in obese versus non-obese patients with cervical cancer. *Oncotarget*. 2017 Dec 23;9(3):4061-4073. doi: 10.18632/oncotarget.23664. eCollection 2018 Jan 9. PMID: 29423104 PMCID: PMC5790521
 65. Xia J, **Miller CA**, Baty J, Ramesh A, Jotte MR, Fulton RS, Vogel TP, Cooper MA, Walkovich KJ, Makaryan V, Bolyard AA, Dinauer MC, Wilson DB, Vlachos A, Myers KC,

- Rothbaum RJ, Bertuch AA, Dale DC, Shimamura A, Boxer LA, Link DC. Somatic mutations and clonal hematopoiesis in congenital neutropenia. *Blood*. 2018 Jan 25;131(4):408-416. doi: 10.1182/blood-2017-08-801985. Epub 2017 Nov 1. PMID: 29092827 PMCID: PMC5790127
66. Mahlokozero T, Vellimana AK, Li T, Mao DD, Zohny ZS, Kim DH, Tran DD, Marcus DS, Fouke SJ, Campian JL, Dunn GP, **Miller CA**, Kim AH. Biological and therapeutic implications of multisector sequencing in newly diagnosed glioblastomas. *Neuro-oncology*. 2018 Mar 27;20(4):472-483. doi: 10.1093/neuonc/nox232. PMID: 29244145 PMCID: PMC5909635
 67. Wong TN, **Miller CA**, Jotte MR, Bagegni N, Baty JD, Schmidt AP, Cashen AF, Duncavage EJ, Helton NM, Fiala M, et al. Cellular stressors contribute to the expansion of hematopoietic clones of varying leukemic potential. *Nature Communications*. 2018 Jan 31;9(1):455. doi: 10.1038/s41467-018-02858-0. PMID: 29386642 PMCID: PMC5792556
 68. Jacoby MA, Duncavage EJ, Chang GS, **Miller CA**, Shao J, Elliott K, Robinson J, Fulton RS, Fronick CC, O'Laughlin M, Heath SE, Pusic I, Welch JS, Link DC, DiPersio JF, Westervelt P, Ley TJ, Graubert TA, Walter MJ. Subclones dominate at MDS progression following allogeneic hematopoietic cell transplant. *Jci Insight*. 2018 Mar 8;3(5):e98962. doi: 10.1172/jci.insight.98962. PMID: 29515031 PMCID: PMC5922277
 69. **Miller CA**, Dahiya S, Li T, Fulton RS, Smyth MD, Dunn GP, Rubin JB, Mardis ER. Resistance-promoting effects of ependymoma treatment revealed through genomic analysis of multiple recurrences in a single patient. *Molecular Case Studies*. 2018 Apr 2;4(2):a002444. doi: 10.1101/mcs.a002444. Print 2018 Apr. PMID: 29440180 PMCID: PMC5880262
 70. Bansal D, Vij K, Chang GS, **Miller CA**, DiPersio JF, Vij R, Heath SE, Westervelt P, Welch JS, Fehniger TA. Lenalidomide results in a durable complete remission in acute myeloid leukemia accompanied by persistence of somatic mutations and a T-cell infiltrate in the bone marrow. *Haematologica*. 2018 Jun;103(6):e270-e273. doi: 10.3324/haematol.2017.184168. Epub 2018 Mar 22. PMID: 29567774 PMCID: PMC6058793
 71. Rohan TE*, **Miller CA***, Li T, Wang Y, Loudig O, Ginsberg M, Glass A, Mardis E. Somatic mutations in benign breast disease tissue and risk of subsequent invasive breast cancer. *British Journal Of Cancer*. 2018 Jun;118(12):1662-1664. doi: 10.1038/s41416-018-0089-7. Epub 2018 Jun 6. PMID: 29872146 PMCID: PMC6008400
 72. **Miller CA**, Tricarico C, Skidmore ZL, Uy GL, Lee Y, Hassan A, O'Laughlin MD, Schmidt H, Tian L, Duncavage EJ, Griffith M, Griffith OL, Welch JS, Wartman L. A case of acute myeloid leukemia with promyelocytic features characterized by expression of a novel

RARG-CPSF6 fusion. Blood Advances. 2018 Jun 12;2(11):1295-1299. doi: 10.1182/bloodadvances.2017014183. PMID: 29891591 PMCID: PMC5998929

73. Cooper ML, Choi J, Staser K, Ritchey JK, Devenport JM, Eckardt K, Rettig MP, Wang B, Eissenberg LG, Ghobadi A, Gehrs LN, Prior JL, Achilefu S, **Miller CA**, Fronick CC, O'Neal J, Gao F, Weinstock DM, Gutierrez A, Fulton RS, DiPersio JF. An "off-the-shelf" fratricide-resistant CAR-T for the treatment of T cell hematologic malignancies. Leukemia. 2018 Sep;32(9):1970-1983. doi: 10.1038/s41375-018-0065-5. Epub 2018 Feb 20. PMID: 29483708 PMCID: PMC6102094
74. Alberti MO, Srivatsan SN, Shao J, McNulty SN, Chang GS, **Miller CA**, Dunlap JB, Yang F, Press RD, Gao Q, Ding L, Heusel JW, Duncavage EJ, Walter MJ. Discriminating a common somatic ASXL1 mutation (c. 1934dup; p. G646Wfs* 12) from artifact in myeloid malignancies using NGS. Leukemia. 2018 Aug;32(8):1874-1878. doi: 10.1038/s41375-018-0193-y. Epub 2018 Jun 29. PMID: 29959414 PMCID: PMC6402595
75. Griffith OL, Spies NC, Anurag M, Griffith M, Luo J, Tu D, Yeo B, Kunisaki J, **Miller CA**, Krysiak K, Hundal J, Ainscough J, Skidmore ZL, Campbell K, Kumar R, Fronick C, Cook L, Snider JE, Davies S, Kavuri SM, Chang EC, Magrini V, Larson DE, Fulton RS, Liu S, Leung S, Voduc D, Bose R, Dowsett M, Wilson RK, Nielsen TO, Mardis ER, Ellis MJ. The prognostic effects of somatic mutations in ER-positive breast cancer. Nature Communications. 2018 Sep 4;9(1):3476. doi: 10.1038/s41467-018-05914-x. PMID: 30181556 PMCID: PMC6123466
76. Duncavage EJ, Jacoby MA, Chang GS, **Miller CA**, Edwin N, Shao J, Elliott K, Robinson J, Abel H, Fulton RS, Fronick CC, O'Laughlin M, Heath SE, Brendel K, Saba R, Wartman LD, Christopher MJ, Pusic I, Welch JS, Uy GL, Link DC, DiPersio JF, Westervelt P, Ley TJ, Trinkaus K, Graubert TA, Walter MJ. Mutation clearance after transplantation for myelodysplastic syndrome. New England Journal Of Medicine. 2018 Sep 13;379(11):1028-1041. doi: 10.1056/NEJMoa1804714. PMID: 30207916 PMCID: PMC6309244
77. Christopher MJ, Petti AA, Rettig MP, **Miller CA**, Chendamarai E, Duncavage EJ, Klco JM, Helton NM, O'Laughlin M, Fronick CC, Fulton RS, Wilson RK, Wartman LD, Welch JS, Heath SE, Baty JD, Payton JE, Graubert TA, Link DC, Walter MJ, Westervelt P, Ley TJ, DiPersio JF. Immune Escape of Relapsed AML Cells after Allogeneic Transplantation. New England Journal Of Medicine. 2018 Dec 13;379(24):2330-2341. doi: 10.1056/NEJMoa1808777. Epub 2018 Oct 31. PMID: 30380364 PMCID: PMC6322675
78. Johanns TM, **Miller CA**, Liu CJ, Perrin RJ, DBender, Kobayashi DK, Campian JL, Chicoine MR, Dacey RG, JHuang, Fritsch EF, Gillanders WE, Artyomov MN, Mardis

ER, Schreiber RD, Dunn GP. Detection of neoantigen-specific T cells following a personalized vaccine in a patient with glioblastoma. *Oncoimmunology*. 2019 Jan 25;8(4):e1561106. doi: 10.1080/2162402X.2018.1561106. eCollection 2019. PMID: 30906654 PMCID: PMC6422384

79. Wang T, Glover B, Hadwiger G, **Miller CA**, DiMartino O, Welch JS. Smc3 is required for mouse embryonic and adult hematopoiesis. *Experimental Hematology*. 2019 Feb;70:70-84.e6. doi: 10.1016/j.exphem.2018.11.008. Epub 2018 Dec 13. PMID: 30553776 PMCID: PMC6639053
80. Wang T, Jacoby MA, Duncavage EJ, **Miller CA**, Heath S, Rahme R, Fenaux P, Ades L, Renneville A, Cassinat B, Takeshita A, Asou N, Miyazaki Y, Kiyoi H, Ravandi F, Westervelt P, Wartman LD, Welch JS. Exome analysis of treatment-related AML after APL suggests secondary evolution. *British Journal of Haematology*. 2019 Jun;185(5):984-987. doi: 10.1111/bjh.15681. Epub 2018 Nov 22. PMID: 30467844 PMCID: PMC6531372
81. Ghobadi A*, **Miller CA***, Li T, O'Laughlin M, Lee YS, Ali M, Westervelt P, DiPersio JF, Wartman L. Shared cell of origin in a patient with Erdheim-Chester disease and acute myeloid leukemia. *Haematologica*. 2019 Aug;104(8):e373-e375. doi: 10.3324/haematol.2019.217794. Epub 2019 Mar 28. PMID: 30923101 PMCID: PMC6669153
82. Petti AA, Williams SR, **Miller CA**, Fiddes IT, Srivatsan SN, Chen DY, Fronick CC, Fulton RS, Church DM, Ley TJ. A general approach for detecting expressed mutations in AML cells using single cell RNA-sequencing. *Nature Communications*. 2019 Aug 14;10(1):3660. doi: 10.1038/s41467-019-11591-1. PMID: 31413257 PMCID: PMC6694122
83. Ketkar S, Verdoni AM, Smith AM, Bangert CV, Leight ER, Chen DY, Brune MK, Helton NM, Hooch M, George DR, Fronick C, Fulton RS, Ramakrishnan SM, Chang GS, Petti AA, Spencer DH, **Miller CA**, Ley TJ. Remethylation of Dnmt3a-/- hematopoietic cells is associated with partial correction of gene dysregulation and reduced myeloid skewing. *Proceedings Of The National Academy Of Sciences*. 2020 Feb 11;117(6):3123-3134. doi: 10.1073/pnas.1918611117. Epub 2020 Jan 29. PMID: 31996479 PMCID: PMC7022185
84. Hundal J, Kiwala S, McMichael J, **Miller CA**, Wollam AT, Xia H, Liu CJ, Zhao S, Feng Y, Graubert AP, Wollam AZ, Neichin J, Neveau M, Walker J, Gillanders WE, 82. Mardis ER, Griffith OL, Griffith M. pVACtools: a computational toolkit to identify and visualize cancer neoantigens. *Cancer Immunology Research*. 2020 Mar;8(3):409-420. doi: 10.1158/2326-6066.CIR-19-0401. Epub 2020 Jan 6. PMID: 31907209 PMCID: PMC7056579

85. Moon C, Tompkins W, Wang Y, Godec A, Zhang X, Pipkorn P, **Miller CA**, Dehner C, Dahiya S, Hirbe AC. Unmasking Intra-tumoral Heterogeneity and Clonal Evolution in NF1-MPNST. *Genes*. 2020 May 1;11(5):499. doi: 10.3390/genes11050499. PMID: 32369930 PMCID: PMC7291009
86. Dang HX, Krasnick BA, White BS, Grossman JG, Strand MS, Zhang JZ, Cabanski CR, **Miller CA**, Fulton RS, Goedegebuure SP, Fronick CC, Griffith MZ, Larson DE, Goetz BD, Walker JR, Hawkins WG, Strasberg SM, Linehan DC, Lim KH, Lockhart AC, Mardis ER, Wilson RK, Ley TJ, Maher CA, Fields RC. The clonal evolution of metastatic colorectal cancer. *Science Advances*. 2020 Jun 10;6(24):eaay9691. doi: 10.1126/sciadv.aay9691. eCollection 2020 Jun. PMID: 32577507 PMCID: PMC7286679
87. Oza A, Rettig MP, Powell P, O'Brien K, Clifford DB, Ritchey J, Gehrs L, Hollaway J, Major E, Fehniger TA, **Miller CA**, Soon-Shiong P, Rock A, DiPersio JF. Interleukin-15 superagonist (N-803) treatment of PML and JCV in a post--allogeneic hematopoietic stem cell transplant patient. *Blood Advances*. 2020 Jun 9;4(11):2387-2391. PMID: 32484854 PMCID: PMC7284083
88. Inkman MJ, Jayachandran K, Ellis TM, Ruiz F, McLellan MD, **Miller CA**, Wu Y, Ojesina AI, Schwarz JK, Zhang J. HPV-EM: an accurate HPV detection and genotyping EM algorithm. *Scientific Reports*. 2020 Aug 31;10(1):14340. doi: 10.1038/s41598-020-71300-7. PMID: 32868873 PMCID: PMC7459114
89. Liu CJ, Schaettler M, Blaha DT, Bowman-Kirigin JA, Kobayashi DK, Livingstone AJ, Bender D, **Miller CA**, Kranz DM, Johanns TM, Dunn GP. Treatment of an aggressive orthotopic murine glioblastoma model with combination checkpoint blockade and a multivalent neoantigen vaccine. *Neuro-oncology*. 2020 Sep 29;22(9):1276-1288. doi: 10.1093/neuonc/noaa050. PMID: 32133512 PMCID: PMC7523441
90. Well DK, van BMM, Dang KK, Hubbard-Lucey VM, Sheehan KC, Campbell KM, Lamb A, Ward JP, Sidney J, Blazquez AB, et al. Key parameters of tumor epitope immunogenicity revealed through a consortium approach improve neoantigen prediction. *Cell*. 2020 Oct 29;183(3):818-834.e13. doi: 10.1016/j.cell.2020.09.015. Epub 2020 Oct 9. PMID: 33038342 PMCID: PMC7652061
91. Li Y, **Miller CA**, Shea LK, Jiang X, Guzman MA, Chandler RJ, Ramakrishnan SM, Smith SN, Venditti CP, Vogler CA, Ory DS, Ley TJ, Sands MS. Enhanced efficacy and increased long-term toxicity of CNS-directed, AAV-based combination therapy for Krabbe disease. *Molecular Therapy*. 2021 Feb 3;29(2):691-701. doi: 10.1016/j.ymthe.2020.12.031. Epub 2021 Jan 1. PMID: 33388420 PMCID: PMC7854295 (available on 2022-02-03)
92. Duncavage EJ, Schroeder MC, O'Laughlin M, Wilson R, MacMillan S, Bohannon A, Kruchowski S, Garza J, Du F, Hughes AE, Kruchowski S, Garza J, Du F, Hughes AEO,

- Robinson J, Hughes E, Heath SE, Baty JD, Neidich J, Christopher MJ, Jacoby MA, Uy GL, Fulton RS, **Miller CA**, Payton JE, Link DC, Walter MJ, Westervelt P, DiPersio JF, Ley TJ, Spencer DH. Genome sequencing as an alternative to cytogenetic analysis in myeloid cancers. *New England Journal Of Medicine*. 2021 Mar 11;384(10):924-935. doi: 10.1056/NEJMoa2024534. PMID: 33704937 PMCID: PMC8130455
93. Dehner C, Moon CI, Zhang X, Zhou Z, **Miller CA**, Xu H, Wan X, Yang K, Mashl J, Gosline SJ, Wang W, Zhang X, Godec A, Jones PA, Dahiya S, Bhatia H, Primeau T, Li S, Pollard K, Rodriguez FJ, Ding L, Pratilas CA, Shern JF, Hirbe AC. Chromosome 8 gain is associated with high-grade transformation in MPNST. *Jci Insight*. 2021 Mar 22;6(6):e146351. doi: 10.1172/jci.insight.146351. PMID: 33591953 PMCID: PMC8026192
 94. Li L, Zhang X, Wang X, Kim SW, Herndon JM, Becker-Hapak MK, Carreno BM, Myers NB, Sturmoski MA, McLellan MD, **Miller CA**, Johanns TM, Tan BR, Dunn GP, Fleming TP, Hansen TH, Goedegebuure SP, Gillanders WE. Optimized polyepitope neoantigen DNA vaccines elicit neoantigen-specific immune responses in preclinical models and in clinical translation. *Genome Medicine*. 2021 Apr 21;13(1):56. doi: 10.1186/s13073-021-00872-4. PMID: 33879241 PMCID: PMC8059244
 95. Chen DY, Ferguson IM, Braun KA, Sutton LA, Helton NM, Ramakrishnan SM, Smith AM, **Miller CA**, Ley TJ. Dnmt3a deficiency in the skin causes focal, canonical DNA hypomethylation and a cellular proliferation phenotype. *Proceedings Of The National Academy Of Sciences*. 2021 Apr 20;118(16):e2022760118. doi: 10.1073/pnas.2022760118. PMID: 33846253 PMCID: PMC8072215
 96. Smith AM, LaValle TA, Shinawi M, Ramakrishnan SM, Abel HJ, Hill CA, Kirkland NM, Rettig MP, Helton NM, Heath SE, Ferraro F, Chen DY, Adak S, Semenkovich CF, Christian DL, Martin JL, Gabel HW, **Miller CA**, Ley TJ. Functional and epigenetic phenotypes of humans and mice with DNMT3A Overgrowth Syndrome. *Nature Communications*. 2021 Jul 27;12(1):4549. doi: 10.1038/s41467-021-24800-7. PMID: 34315901 PMCID: PMC8316576
 97. Ruiz FJ, Inkman M, Rashmi R, Muhammad N, Gabriel N, **Miller CA**, McLellan MD, Goldstein M, Markovina S, Grigsby PW, Zhang J, Schwarz JK. HPV transcript expression affects cervical cancer response to chemoradiation. *Jci Insight*. 2021 Aug 23;6(16):e138734. doi: 10.1172/jci.insight.138734. PMID: 34255749 PMCID: PMC8409981
 98. Katerndahl CD, Rogers OR, Day RB, Cai MA, Rooney TP, Helton NM, Hooock M, Ramakrishnan SM, Srivatsan SN, Wartman LD, **Miller CA**, Ley TJ. Tumor suppressor function of Gata2 in Acute Promyelocytic Leukemia. *Blood*. 2021 Sep 30;138(13):1148-1161. doi: 10.1182/blood.2021011758. PMID: 34125173 PMCID: PMC8570055

99. Tian L, Chavez M, Chang GS, Helton NM, Katerndahl CD, **Miller CA**, Wartman L. Kdm6a Deficiency Restricted to Mouse Hematopoietic Cells Causes an Age-and Sex-dependent Myelodysplastic Syndrome-Like Phenotype. PLoS One. 2021 Nov 15;16(11):e0255706. doi: 10.1371/journal.pone.0255706. eCollection 2021. PMID: 34780480 PMCID: PMC8592440
100. Wadugu BA, Srivatsan SN, Heard A, Alberti MO, Ndonwi M, Liu J, Grieb S, Bradley J, Shao J, Ahmed T, Shirai CL, Khanna A, Fei DL, **Miller CA**, Graubert T, Walter MJ. U2AF1 is a haplo-essential gene required for cancer cell survival. J Clin Invest. 2021. doi: 10.1172/JCI141401. PMID: 34546980 PMCID: PMC8553566
101. Ferraro F, **Miller CA**, Christensen KA, Helton NM, O'Laughlin M, Fronick CC, Fulton RS, Kohlschmidt J, Eisfeld AK, Bloomfield CD, Ramakrishnan SM, Day RB, Wartman LD, Uy GL, Welch JS, Christopher MJ, Heath SE, Baty JD, Schuelke MJ, Payton JE, Spencer DH, Rettig MP, Link DC, Walter MJ, Westervelt P, DiPersio JF, Ley TJ. Immunosuppression and outcomes in adult patients with de novo acute myeloid leukemia with normal karyotypes. Proc Natl Acad Sci U S A. 2021 Dec 7;118(49). doi: 10.1073/pnas.2116427118. PMID: 34845035; PMCID: PMC8673586.
102. Wilson ER, Helton N, Heath SE, Fulton RS, **Miller CA**, Payton JE, Welch JS, Walter M, Westervelt P, DiPersio JF, Link DC, Ley TJ, Spencer DH. Focal disruption of DNA methylation dynamics at enhancers in IDH-mutant AML cells. Leukemia. 2021. doi:10.1038/s41375-021-01476-y. PMID: 34873300 PMCID: PMC8979817
103. Petti AA, Khan SM, Xu Z, Helton N, Fronick CC, Fulton R, Ramakrishnan SM, Nonavinkere Srivatsan S, Heath SE, Westervelt P, Payton JE, Walter MJ, Link DC, DiPersio J, **Miller CA**, Ley TJ. Genetic and transcriptional contributions to relapse in normal karyotype acute myeloid leukemia. Blood Cancer Discovery. 2022. doi:10.1158/2643-3230.BCD-21-0050. PMID: 35019859 PMCID: PMC9924296
- 105 Ferraro F*, **Miller CA***, Christensen, K, Helton NM, O'Laughlin, M, Fronick CC, Fulton RS, Kohlschmidt J, Eisfeld A, Bloomfield C, Ramakrishnan SM, Day RB, Wartman LD, Uy GL, Welch JS, Christopher MJ, Heath SE, Baty JD, Schuelke MD, Payton JE, Spencer DH, Rettig MP, Link DC, Walter MJ, Westervelt P, DiPersio JF, Ley TJ. Immunosuppression and outcomes in adult patients with de novo acute myeloid leukemia with normal karyotypes. Proceedings of the National Academy of Sciences. 2021. doi:10.1073/pnas.2116427118
104. **Miller CA**, Walker JR, Jensen TL, Hooper WF, Fulton RS, Painter JS, Sekeres MA, Ley TJ, Spencer DH, Goll JB, Walter MJ. Failure to detect mutations in U2AF1 due to changes in the GRCh38 reference sequence. J Mol Diag. 2022. Jan 15;S1525-1578(22)00005-8. doi: 10.1016/j.jmoldx.2021.10.013. Online ahead of print. PMID: 35041928 PMCID: PMC8950341

105. Christopher MJ, Katerndahl CDS, LeBlanc HR, Elmendorf TT, Basu V, Gang M, Menssen AJ, Spencer DH, Duncavage EJ, Ketkar S, Wartman LD, Ramakrishnan SM, **Miller CA**, Ley TJ. Tumor suppressor function of WT1 in acute promyelocytic leukemia. *Haematologica*. 2022 Jan 1;107(1):342-346. doi: 10.3324/haematol.2021.279601. PMID: 34670359 PMCID: PMC8719088
106. Ferris MA, Smith AM, Heath SE, Duncavage EJ, Oberley MJ, Freyer D, Wynn R, Douzgou S, Maris JM, Reilly AF, Wu M, Choo F, Fiets RB, Koene S, Spencer DH, **Miller CA**, Shinawi M, Ley TJ. DNMT3A Overgrowth Syndrome is associated with the development of hematopoietic malignancies in children and young adults. *Blood*. 2021 Nov 17;blood.2021014052. doi: 10.1182/blood.2021014052. Epub ahead of print. PMID: 34788385. PMCID: PMC8777205
107. Khanna A, Larson DE, Srivatsan SN, Mosior M, Abbott TE, Kiwala S, Ley TJ, Duncavage EJ, Walter MJ, Walker JR, Griffith OL, Griffith M, **Miller CA**. Bam-readcount: rapid generation of basepair-resolution sequence metrics. *Journal of Open Source Software*. 2022. 7(69), 3722. doi: 10.21105/joss.03722
108. Smith AM, Verdoni AM, Abel HJ, Chen DY, Ketkar S, Leight ER, **Miller CA**, Ley TJ. Somatic Dnmt3a inactivation leads to slow, canonical DNA methylation loss in murine hematopoietic cells. *iScience*. 2022. 25(4). doi:10.1016/j.isci.2022.104004. PMID: 35313694 PMCID: PMC8933692
109. **Miller CA**. Efficient Algorithms Unlock Understanding of Clonal Evolution in Cancer. *Blood Cancer Discov* 1 May 2022; 3 (3): 176–177. doi:0.1158/2643-3230.BCD-22-0036 PMID: 35510362 PMCID: PMC9245365
110. Menssen AJ, Khanna A, **Miller CA**, Nonavinkere Srivatsan S, Chang GS, Shao J, Robinson J, O'Laughlin M, Fronick CC, Fulton RS, Brendel K, Heath SE, Saba R, Welch JS, Spencer DH, Payton JE, Westervelt P, DiPersio JF, Link DC, Schuelke MJ, Jacoby MA, Duncavage EJ, Ley TJ, Walter MJ. Convergent Clonal Evolution of Signaling Gene Mutations Is a Hallmark of Myelodysplastic Syndrome Progression. *Blood Cancer Discov*. 2022 Jun 16:OF1-OF16. doi: 10.1158/2643-3230. PMID: 35709710. PMCID: PMC9338759
111. Skidmore ZL, Kunisaki J, Lin Y, Cotto KC, Barnell EK, Hundal J, Krysiak K, Magrini V, Trani L, Walker JR, Fulton R, Brunt EM, **Miller CA**, Wilson RK, Mardis ER, Griffith M, Chapman W, Griffith OL. Genomic and transcriptomic somatic alterations of hepatocellular carcinoma in non-cirrhotic livers. *Cancer Genet*. 2022 Jun;264-265:90-99. doi: 10.1016/j.cancergen.2022.04.002. Epub 2022 Apr 30. PMID: 35568002 PMCID: PMC10204923
112. Upadhyay P, Beales J, Shah NM, Gruszczynska A, **Miller CA**, Petti AA, Ramakrishnan SM, Link DC, Ley TJ, Welch JS. Recurrent transcriptional responses in AML and MDS

patients treated with decitabine. *Experimental Hematology*. 2022.

doi:10.1016/j.exphem.2022.04.002 PMID: 35429619 PMCID: PMC9833843

113. Ghobadi A, Landmann J, Carter A, Cooper ML, Selli ME, Chang J, Baker M, **Miller CA**, Ferraro F, Chen DY, Smith AM, LaValle TA, Duncavage EJ, Chou J, Tam V, Benoun JM, Nater J, Scholler N, Milletti F, Vezan R, Bot A, Rossi JM, Singh NY. Discovery of a novel genomic alteration that renders leukemic cells resistant to CD19-targeted immunotherapies. *Blood Advances*. 2022. doi:10.1182/bloodadvances.2022007705 PMID: 35858291 PMCID: PMC9582720
114. Ferraro F, Gruszczynska A, Ruzinova MB, **Miller CA**, Percival ME, Uy GL, Pusic I, Jacoby MA, Christopher MJ, Kim MY, Cashen AF, Schroeder MA, DiPersio JF, Abboud CN, Wartman LD, Gao F, Link DC, Ley TJ, Welch JS. Decitabine salvage for TP53-mutated, relapsed/refractory acute myeloid leukemia after cytotoxic induction therapy. *Haematologica*. 2022. doi:10.3324/haematol.2021.280153. PMID: 35236053 PMCID: PMC9244807
115. Kramer MH, Zhang Q, Sprung R, Day RB, Erdmann-Gilmore P, Li Y, Xu Z, Helton NM, George DR, Mi Y, Westervelt P, Payton JE, Ramakrishnan SM, **Miller CA**, Link DC, DiPersio JC, Walter MJ, Townsend RR, Ley TJ. Proteomic and Phosphoproteomic Landscapes of Acute Myeloid Leukemia. *Blood*. 2022. doi:10.1182/blood.2022016033. PMID: 35895896 PMCID: PMC9523374
116. Shea LK, Akhave NS, Sutton LA, Compton LA, York C, Ramakrishnan SM, **Miller CA**, Wartman LD, Chen DY. Combined Kdm6a and Trp53 Deficiency Drives the Development of Squamous Cell Skin Cancer in Mice. *J Invest Dermatol*. 2023 Feb;143(2):232-241.e6. doi: 10.1016/j.jid.2022.08.037. Epub 2022 Aug 31. PMID: 36055401; PMCID: PMC10334302.
117. Tian R, Wiley B, Liu J, Zong X, Truong B, Zhao S, Uddin MM, Niroula A, **Miller CA**, Mukherjee S, Heiden BT, Luo J, Puri V, Kozower BD, Walter MJ, Ding L, Link DC, Amos CI, Ebert BL, Govindan R, Natarajan P, Bolton KL, Cao Y. Clonal Hematopoiesis and Risk of Incident Lung Cancer. *J Clin Oncol*. 2023 Mar 1;41(7):1423-1433. doi: 10.1200/JCO.22.00857. Epub 2022 Dec 8. PMID: 36480766; PMCID: PMC9995101.
118. Chen DY, Sutton LA, Ramakrishnan SM, Duncavage EJ, Heath SE, Compton LA, **Miller CA**, Ley TJ. Melanoma in a patient with DNMT3A overgrowth syndrome. *Cold Spring Harb Mol Case Stud*. 2023 May 9;9(2):a006267. doi: 10.1101/mcs.a006267. PMID: 37160317; PMCID: PMC10240841.
119. Xia H, McMichael J, Becker-Hapak M, Onyeador OC, Buchli R, McClain E, Pence P, Supabphol S, Richters MM, Basu A, Ramirez CA, Puig-Saus C, Cotto KC, Freshour SL, Hundal J, Kiwala S, Goedegebuure SP, Johanns TM, Dunn GP, Ribas A, **Miller CA**, Gillanders WE, Fehniger TA, Griffith OL, Griffith M. Computational prediction of MHC

anchor locations guides neoantigen identification and prioritization. *Sci Immunol.* 2023 Apr 14;8(82):eabg2200. doi: 10.1126/sciimmunol.abg2200. Epub 2023 Apr 7. PMID: 37027480; PMCID: PMC10450883.

120. Kotnik EN, Mullen MM, Spies NC, Li T, Inkman M, Zhang J, Martins-Rodrigues F, Hagemann IS, McCourt CK, Thaker PH, Hagemann AR, Powell MA, Mutch DG, Khabele D, Longmore GD, Mardis ER, Maher CA, **Miller CA**, Fuh KC. Genetic characterization of primary and metastatic high-grade serous ovarian cancer tumors reveals distinct features associated with survival. *Commun Biol.* 2023 Jul 3;6(1):688. doi: 10.1038/s42003-023-05026-3. PMID: 37400526; PMCID: PMC10318066.
121. Panni UY, Chen MY, Zhang F, Cullinan DR, Li L, James CA, Zhang X, Rogers S, Alarcon A, Baer JM, Zhang D, Gao F, **Miller CA**, Gong Q, Lim KH, DeNardo DG, Goedegebuure SP, Gillanders WE, Hawkins WG. Induction of cancer neoantigens facilitates development of clinically relevant models for the study of pancreatic cancer immunobiology. *Cancer Immunol Immunother.* 2023 Aug;72(8):2813-2827. doi: 10.1007/s00262-023-03463-x. Epub 2023 May 13. PMID: 37179276; PMCID: PMC10361914.
122. Abel HJ*, Oetjen KA*, **Miller CA***, Ramakrishnan SM, Day RB, Helton NM, Fronick CC, Fulton RS, Heath SE, Tarnawsky SP, Nonavinkere Srivatsan S, Duncavage EJ, Schroeder MC, Payton JE, Spencer DH, Walter MJ, Westervelt P, DiPersio JF, Ley TJ, Link DC. Genomic landscape of TP53-mutated myeloid malignancies. *Blood Adv.* 2023 Aug 22;7(16):4586-4598. doi: 10.1182/bloodadvances.2023010156. PMID: 37339484; PMCID: PMC10425686.
123. Gomez F, Fisk B, McMichael JF, Mosior M, Foltz JA, Skidmore ZL, Duncavage EJ, **Miller CA**, Abel H, Li YS, Russler-Germain DA, Krysiak K, Watkins MP, Ramirez CA, Schmidt A, Martins Rodrigues F, Trani L, Khanna A, Wagner JA, Fulton RS, Fronick CC, O'Laughlin MD, Schappe T, Cashen AF, Mehta-Shah N, Kahl BS, Walker J, Bartlett NL, Griffith M, Fehniger TA, Griffith OL. Ultra-Deep Sequencing Reveals the Mutational Landscape of Classical Hodgkin Lymphoma. *Cancer Res Commun.* 2023 Nov 15;3(11):2312-2330. doi: 10.1158/2767-9764.CRC-23-0140. PMID: 37910143; PMCID: PMC10648575.
124. Gruszczynska A, Maiti A, **Miller CA**, Ramakrishnan SM, Link DC, Uy GL, Petti AA, Hayes K, DiNardo CD, Ravandi F, Ley TJ, Spencer DH, Gao F, Konopleva MY, Welch JS. Molecular responses in decitabine- and decitabine/ venetoclax-treated patients with acute myeloid leukemia and myelodysplastic syndromes. *Haematologica.* 2024 Aug 1;109(8):2653-2659. doi: 10.3324/haematol.2022.281396. PMID: 38618679; PMCID: PMC11290502.

125. Li Y, Abel HJ, Cai M, LaValle TA, Yin T, Helton NM, Smith AM, **Miller CA**, Ley TJ. Rapid and accurate remethylation of DNA in Dnmt3a-deficient hematopoietic cells with restoration of DNMT3A activity. *Sci Adv*. 2024 Feb 2;10(5):eadk8598. doi: 10.1126/sciadv.adk8598. Epub 2024 Jan 31. PMID: 38295174; PMCID: PMC10830114.
126. Day RB, Hickman JA, Xu Z, Katerndahl CD, Ferraro F, Ramakrishnan SM, Erdmann-Gilmore P, Sprung RW, Mi Y, Townsend RR, **Miller CA**, Ley TJ. Proteogenomic analysis reveals cytoplasmic sequestration of RUNX1 by the acute myeloid leukemia-initiating CBFβ::MYH11 oncofusion protein. *J Clin Invest*. 2023 Dec 7;134(4):e176311. doi: 10.1172/JCI176311. PMID: 38061017; PMCID: PMC10866659.
127. Katerndahl CDS, Rogers ORS, Day RB, Xu Z, Helton NM, Ramakrishnan SM, **Miller CA**, Ley TJ. PML::RARA and GATA2 proteins interact via DNA templates to induce aberrant self-renewal in mouse and human hematopoietic cells. *Proc Natl Acad Sci U S A*. 2024 Apr 30;121(18):e2317690121. doi: 10.1073/pnas.2317690121. Epub 2024 Apr 22. PMID: 38648485; PMCID: PMC11067031.
128. Xia H, Hoang MH, Schmidt E, Kiwala S, McMichael J, Skidmore ZL, Fisk B, Song JJ, Hundal J, Mooney T, Walker JR, Goedegebuure SP, **Miller CA**, Gillanders WE, Griffith OL, Griffith M. pVACview: an interactive visualization tool for efficient neoantigen prioritization and selection. *Genome Med*. 2024 Nov 14;16(1):132. doi: 10.1186/s13073-024-01384-7. PMID: 39538339; PMCID: PMC11562694.
129. Zhang X, Goedegebuure SP, Chen MY, Mishra R, Zhang F, Yu YY, Singhal K, Li L, Gao F, Myers NB, Vickery T, Hundal J, McLellan MD, Sturmoski MA, Kim SW, Chen I, Davidson JT 4th, Sankpal NV, Myles S, Suresh R, Ma CX, Foluso A, Wang-Gillam A, Davies S, Hagemann IS, Mardis ER, Griffith O, Griffith M, **Miller CA**, Hansen TH, Fleming TP, Schreiber RD, Gillanders WE. Neoantigen DNA vaccines are safe, feasible, and induce neoantigen-specific immune responses in triple-negative breast cancer patients. *Genome Med*. 2024 Nov 14;16(1):131. doi: 10.1186/s13073-024-01388-3. PMID: 39538331; PMCID: PMC11562513.
130. Jacoby MA, Duncavage ED, Khanna A, Chang GS, Nonavinkere Srivatsan S, **Miller CA**, Gao F, Robinson J, Shao J, Fulton RS, Fronick CC, O'Laughlin M, Heath SE, Brendel K, Chavez M, DiPersio JF, Abboud CN, Stockerl-Goldstein K, Westervelt P, Cashen A, Pusic I, Oh ST, Welch JS, Wells DA, Loken MR, Uy GL, Walter MJ. Monitoring clonal burden as an alternative to blast count for myelodysplastic neoplasm treatment response. *Leukemia*. 2025 Jan;39(1):166-177. doi: 10.1038/s41375-024-02426-0. Epub 2024 Oct 4. PMID: 39367170. PMCID: PMC13091403
131. Kramer MH, Richardson SN, Li Y, Yin T, Helton NM, George DR, Cai M, Ramakrishnan SM, Katerndahl CDS, **Miller CA**, Ley TJ. Overexpression of the signaling-coordinator

GAB2 can play an important role in Acute Myeloid Leukemia progression. The Journal of Clinical Investigation. 2025 Aug. PMID: 40773291 PMCID: PMC12578389

132. Abel HJ, Mahgoub M, Davarapalli N, Kodgule R, **Miller CA**, Fulton RS, Fronick C, Markovic C, Heath S, Payton JE, Jacoby MA, Link DC, Walter MJ, Duncavage EJ, Ley TJ, Spencer DH. Evaluation of Long-Read Genome Sequencing for Genomic Profiling of Myeloid Cancers. J Mol Diagn. 2025 Dec;27(12):1242-1254. doi: 10.1016/j.jmoldx.2025.09.001. Epub 2025 Sep 26. PMID: 41016628. PMCID: PMC12831091
133. Singhal K, Schmidt E, Kiwala S, Goedegebuure SP, **Miller CA**, Xia H, Cotto KC, Li J, Yao J, Hendrickson L, Richters MM, Hoang MH, Khanfar M, Risch I, O'Laughlin S, Myers N, Vickery T, Davies SR, Du F, Mooney TB, Coffman A, Chang GS, Hundal J, Garza JE, McLellan MD, McMichael JF, Maruska J, Inabinett WB, Hoos WA, Karchin R, Johanns TM, Dunn GP, Pachynski RK, Fehniger TA, Ward JP, Foltz JA, Gillanders WE, Griffith OL, Griffith M. ImmunoNX: a robust bioinformatics workflow to support personalized neoantigen vaccine trials. ArXiv [Preprint]. 2025 Dec 9:arXiv:2512.08226v1. PMID: 41415611; PMCID: PMC12709488.
134. Mishra R, Ademuyiwa F, Yang Y, Herndon J, Li L, Street C, Myers N, Chen I, Zhang X, Hagemann IS, Gao F, **Miller CA**, Sankpal NV, Guthridge JM, Carmody M, Ma CX, Suresh R, Fleming TP, Marlin C, Goedegebuure SP, Gillanders WE. Neoadjuvant Endocrine Treatment plus Mammaglobin-A DNA Vaccine Induces Antitumor Immune Responses in the Primary Tumor and Peripheral Blood of Patients with Breast Cancer: Insights from a Phase Ib Clinical Trial. Cancer Immunol Res. 2026 Apr 2;14(4):543-558. doi: 10.1158/2326-6066.CIR-25-0666. PMID: 41650206.
135. Baeten JT, Agashe S, Tabet I, Wooldridge JT, Carter A, Butler JN, **Miller CA**, Helton N, Quinet A, Johansson KB, Yang Y, Uy GL, Vindigni A, Link DC. Synthetic lethality of decitabine plus ATR inhibition for TP53-mutated AML. Blood Adv. 2026 Apr 14;10(7):2506-2520. doi: 10.1182/bloodadvances.2025018369. PMID: 41610325; PMCID: PMC13083725.
136. Garfinkle EAR, Perales-Linares R, Gimple RC, Livingstone AJ, Roberts KF, Butt OH, Goedegebuure SP, McLellan MD, Chang GS, Hundal J, Yan J, Navarro JB, Paxton SA, Chattopadhyay S, Cooch N, Perales-Puchalt A, Stavroulaki K, Rochestie S, Peters J, Junker B, Campian JL, Chheda MG, Chicoine MR, Kim AH, Willie JT, Zipfel GJ, Dowling JL, **Miller CA**, Griffith OL, Griffith M, Gillanders WE, Miller KE, Mardis ER, Sardesai NY, Dunn GP, Johanns TM. Adjuvant personalized multivalent neoantigen DNA vaccination for MGMT unmethylated glioblastoma: a phase 1 trial. Nat Cancer. 2026 May 12. doi: 10.1038/s43018-026-01163-w. PMID: 42120910.

137. Yao JX, Singhal K, Kiwala S, Schmidt E, Goedegebuure S, **Miller CA**, Xia H, Cotto K, Coffman A, Hoang MH, Khanfar M, Li J, Hendrickson L, Risch I, Davies SR, Du F, Chang G, Hundal J, Ward JP, Inabinett WB, Hoos WA, Johanns TM, Dunn GP, Pachynski RK, Fehniger TA, Foltz JA, Gillanders WE, Griffith M, Griffith OL. Automating neoantigen selection for personalized cancer vaccine design. (journal). 2026 07 01. doi: 10.64898/2026.06.24.26356293.
138. **Miller CA**, Srivatsan SN, Kramer MH, Ramakrishnan SM, Fronick CC, Fulton RS, Katerndahl CD, Helton NM, Ley TJ, Walter MJ. Long-read cDNA sequencing reveals novel isoforms and spliceosome-mutant- enriched transcripts in AML and MDS. bioRxiv [Preprint]. 2026 Jun 9. PMID: 42239263; PMCID: PMC13228619.
139. Hoang MH, Kiwala S, Richters M, Hendrickson L, Xia H, Schmidt E, **Miller CA**, Cotto KC, Lichti CF, Skidmore Z, Singhal K, Yao JX, Li J, Khanfar M, Risch I, Ward J, Govindan R, Dunn G, Johanns TM, Goedegebuure SP, Fehniger TA, Karchin R, Schreiber RD, Gillanders W, Griffith OL, Griffith M. pVACtools v6: A comprehensive suite for neoantigen prediction, visualization, and therapy design. ArXiv [Preprint]. 2026 Jun 25:arXiv:2606.26659v1. PMID: 42396206; PMCID: PMC13321332.
140. Jacoby MA, Spencer DH, Gao F, Uy GL, Burton T, Heath SE, Du F, O'Laughlin M, Fulton RS, **Miller CA**, Duncavage EJ, Schroeder MA, Ghobadi A, Pusic I, Stockerl-Goldstein KE, Kahl BS, Cashen AF, Christopher MJ, Singh N, Vij R, Crees ZD, Wartman LD, Day RB, Fehniger TA, Oetjen KA, Patel DA, Kim MY, Slade MJ, Ferraro F, Walter MJ, Abboud CN, Abboud R, Link DC, Al-Mansour ZA, Cogle CR, Huselton EJ, DiPersio JF, Westervelt P, Ley TJ. Consolidation Therapy Based on Mutation Clearance in Acute Myeloid Leukemia. NEJM Evid. 2026 Sep;5(9):EVIDoa2500352. doi: 10.1056/EVIDoa2500352. PMID: 42640163.
141. Zhang Perkins F, Zhang X, Yu YYL, Yang Y, Cullinan D, Singhal K, Parra-Lopez CA, **Miller CA**, Yan B, Angkeow JW, Li J, Myers NB, Vickery T, Herndon J, Mishra R, Myles S, Sanford D, Jaffee EM, Laheru DA, Wang-Gillam A, Ruzinova MB, Hagemann IS, Davies SR, Fleming TP, Namen S, DeSelm CJ, Li L, Panni RZ, Gao F, Lim KH, Griffith OL, Griffith M, Schreiber RD, Goedegebuure SP, Hawkins WG, Gillanders WE. Synthetic long peptide and DNA personalized cancer vaccines induce robust neoantigen-specific T cell responses in pancreatic cancer. Sci Adv. 2026 Sep 4;12(36):eaei1190. doi: 10.5281/zenodo.3367200. PMID: 42696575; PMCID: PMC2147082.