

Curriculum Vitae and Bibliography

Krishna R Kalari, PhD

Personal Information

Work Address: Mayo Clinic Minnesota
200 First Street SW
Rochester, MN 55905
507-538-4602

Email Address: Kalari.Krishna@mayo.edu

Present Academic Rank and Position

Associate Professor of Biomedical Informatics - Mayo Clinic College of Medicine and Science	07/2016 - Present
Senior Associate Consultant II-Research - Division of Biomedical Statistics and Informatics, Department of Health Sciences Research, Mayo Clinic, Rochester, Minnesota	07/2015 - Present
Adjunct Assistant Professor - University of Minnesota, Rochester, Minnesota, Rochester, Minnesota	01/2013 - Present
Teaching/Examining Privileges in Molecular Pharmacology & Experimental Therapeutics - Mayo Clinic Graduate School of Biomedical Sciences, Mayo Clinic College of Medicine and Science	01/2014 - Present

Education

State Board of Technical Education, Andhra Pradesh - Diploma, Computer Engineering	01/1990 - 01/1993
Institute of Engineers - BS, Electronics Engineering	01/1994 - 01/1998
University of Iowa - Ph.D., Biomedical Engineering	01/2002 - 01/2006

Honors and Awards

Meritorious Student Award	01/1990 - 01/1993
Travel Fellowship Award - International Society for Computational Biology	01/2008
Travel Fellowship Award - International Society for Computational Biology	01/2011
Eveleigh Career Development Award - Mayo Clinic, Jacksonville, Florida	02/2011 - 01/2014
BSI Meritorious Award - Department of Health Sciences Research, Mayo Clinic, Rochester, Minnesota	01/2012 - 01/2014
Mayo Clinic Breast Cancer SPORE Career Development Award – Mayo Breast SPORE, National Cancer Institute.	10/2013 - 08/2015

Previous Professional Positions and Major Appointments

Senior Software Engineer - MCI WorldCom, Cedar Rapids, Iowa	1998 - 2002
Research Assistant - Center for Bioinformatics and Computational Biology Lab, Iowa City, Iowa	2002 - 2006
Bioinformatics Specialist II - Division of Biomedical Statistics and Informatics, Department of Health Sciences Research, Mayo Clinic, Rochester, Minnesota	2006 - 03/2010
Instructor in Biomedical Informatics - Mayo Clinic College of Medicine and Science	07/2009 - 02/2010
Assistant Professor in Biomedical Informatics - Mayo Clinic College of Medicine and Science	03/2010 - 06/2016
Associate Consultant - Research - Department of Cancer Biology, Mayo Clinic Cancer Center - Jacksonville, Mayo Clinic, Jacksonville, Florida	03/2010 - 08/2012
Associate Consultant I-Research - Division of Biomedical Statistics and Informatics, Department of Health Sciences Research, Mayo Clinic, Rochester, Minnesota	08/2012 - 06/2015

Bibliography

Peer-reviewed Articles

1. **Kalari KR**, Casavant M, Bair TB, Keen HL, Comeron JM, Casavant TL, Scheetz TE. First exons and introns--a survey of GC content and gene structure in the human genome. *In Silico Biol.* 2006; 6(3):237-42. PMID:16922687
2. Wang L, Kumar S, Fridley BL, **Kalari KR**, Moon I, Pellemounter LL, Hildebrandt MA, Batzler A, Eckloff BW, Wieben ED, Greipp PR. Proteasome beta subunit pharmacogenomics: gene resequencing and functional genomics. *Clin Cancer Res.* 2008 Jun 01; 14: (11)3503-13. PMID:18519783 PMCID:2778274 DOI:10.1158/1078-0432.CCR-07-5150
3. Li L, Fridley B, **Kalari K**, Jenkins G, Batzler A, Safgren S, Hildebrandt M, Ames M, Schaid D, Wang L. Gemcitabine and cytosine arabinoside cytotoxicity: association with lymphoblastoid cell expression. *Cancer Res.* 2008 Sep 01; 68: (17)7050-8. PMID:18757419 PMCID:2562356 DOI:10.1158/0008-5472.CAN-08-0405
4. **Kalari KR**, Casavant TL, Scheetz TE. A knowledge-based approach to predict intragenic deletions or duplications. *Bioinformatics.* 2008 Sep 15; 24(18):1975-9. Epub 2008 Jul 21. PMID:18647756 DOI:10.1093/bioinformatics/btn370
5. Aksoy P, Zhu MJ, **Kalari KR**, Moon I, Pellemounter LL, Eckloff BW, Wieben ED, Yee VC, Weinshilboum RM, Wang L. Cytosolic 5'-nucleotidase III (NT5C3): gene sequence variation and functional genomics. *Pharmacogenet Genomics.* 2009 Aug; 19: (8)567-76. PMID:19623099 PMCID:2763634 DOI:10.1097/FPC.0b013e32832c14b8
6. Niu N, Manickam V, **Kalari KR**, Moon I, Pellemounter LL, Eckloff BW, Wieben ED, Schaid DJ, Wang L. Human glucocorticoid receptor alpha gene (NR3C1) pharmacogenomics: gene resequencing and functional genomics. *J Clin Endocrinol Metab.* 2009 Aug; 94: (8)3072-84. PMID:19435830 PMCID:2730876 DOI:10.1210/jc.2008-2109

7. Feng Q, Keshtgarpour M, Pelleymounter LL, Moon I, **Kalari KR**, Eckloff BW, Wieben ED, Weinshilboum RM. Human S-adenosylhomocysteine hydrolase: common gene sequence variation and functional genomic characterization. *J Neurochem*. 2009 Sep; 110: (6)1806-17. PMID:19619139 PMCID:2838417 DOI:10.1111/j.1471-4159.2009.06276.x
8. Pei H, Li L, Fridley BL, Jenkins GD, **Kalari KR**, Lingle W, Petersen G, Lou Z, Wang L. FKBP51 affects cancer cell response to chemotherapy by negatively regulating Akt. *Cancer Cell*. 2009 Sep 08; 16: (3)259-66. PMID:19732725 PMCID:2755578 DOI:10.1016/j.ccr.2009.07.016
9. Li L, Fridley BL, **Kalari K**, Jenkins G, Batzler A, Weinshilboum RM, Wang L. Gemcitabine and arabinosylcytosin pharmacogenomics: genome-wide association and drug response biomarkers. *PLoS One*. 2009 Nov 09; 4: (11)e7765. PMID:19898621 PMCID:2770319 DOI:10.1371/journal.pone.0007765
10. **Kalari KR**, Hebbring SJ, Chai HS, Li L, Kocher JP, Wang L, Weinshilboum RM. Copy number variation and cytidine analogue cytotoxicity: a genome-wide association approach. *BMC Genomics*. 2010 Jun 04; 11:357. PMID:20525348 PMCID:2894803 DOI:10.1186/1471-2164-11-357
11. Hartman WR, Pelleymounter LL, Moon I, **Kalari K**, Liu M, Wu TY, Escande C, Nin V, Chini EN, Weinshilboum RM. CD38 expression, function, and gene resequencing in a human lymphoblastoid cell line-based model system. *Leuk Lymphoma*. 2010 Jul; 51: (7)1315-25. PMID:20470215 PMCID:2892000 DOI:10.3109/10428194.2010.483299
12. Niu N, Qin Y, Fridley BL, Hou J, **Kalari KR**, Zhu M, Wu TY, Jenkins GD, Batzler A, Wang L. Radiation pharmacogenomics: a genome-wide association approach to identify radiation response biomarkers using human lymphoblastoid cell lines. *Genome Res*. 2010 Nov; 20: (11)1482-92. PMID:20923822 PMCID:2963812 DOI:10.1101/gr.107672.110
13. Li F, Fridley BL, Matimba A, **Kalari KR**, Pelleymounter L, Moon I, Ji Y, Jenkins GD, Batzler A, Wang L, Weinshilboum RM. Ecto-5'-nucleotidase and thiopurine cellular circulation: association with cytotoxicity. *Drug Metab Dispos*. 2010 Dec; 38: (12)2329-38. PMID:20855458 PMCID:2993460 DOI:10.1124/dmd.110.035220
14. Feng Q, **Kalari K**, Fridley BL, Jenkins G, Ji Y, Abo R, Hebbring S, Zhang J, Nye MD, Leeder JS, Weinshilboum RM. Betaine-homocysteine methyltransferase: human liver genotype-phenotype correlation. *Mol Genet Metab*. 2011 Feb; 102: (2)126-33. PMID:21093336 PMCID:3053054 DOI:10.1016/j.ymgme.2010.10.010
15. Rudin D, Li L, Niu N, **Kalari KR**, Gilbert JA, Ames MM, Wang L. Gemcitabine Cytotoxicity: Interaction of Efflux and Deamination. *J Drug Metab Toxicol*. 2011 Feb 02; 2: (107)1-10. PMID:21804948 PMCID:3144579 DOI:10.4172/2157-7609.1000107
16. Sun Z, Asmann YW, **Kalari KR**, Bot B, Eckel-Passow JE, Baker TR, Carr JM, Khrebtukova I, Luo S, Zhang L, Schroth GP, Perez EA, Thompson EA. Integrated analysis of gene expression, CpG island methylation, and gene copy number in breast cancer cells by deep sequencing. *PLoS One*. 2011 Feb 25; 6: (2)e17490. PMID:21364760 PMCID:3045451 DOI:10.1371/journal.pone.0017490
17. Moyer AM, Fridley BL, Jenkins GD, Batzler AJ, Pelleymounter LL, **Kalari KR**, Ji Y, Chai Y, Nordgren KK, Weinshilboum RM. Acetaminophen-NAPQI hepatotoxicity: a cell line model system genome-wide association study. *Toxicol Sci*. 2011 Mar; 120: (1)33-41. PMID:21177773 PMCID:3044203 DOI:10.1093/toxsci/ktq375
18. Murray NR, **Kalari KR**, Fields AP. Protein kinase Ciota expression and oncogenic signaling mechanisms in cancer. *J Cell Physiol*. 2011 Apr; 226: (4)879-87. PMID:20945390 PMCID:3075823 DOI:10.1002/jcp.22463
19. Asmann YW, Hossain A, Necela BM, Middha S, **Kalari KR**, Sun Z, Chai HS, Williamson DW, Radisky D, Schroth GP, Kocher JP, Perez EA, Thompson EA. A novel bioinformatics pipeline for identification and characterization of fusion transcripts in breast cancer and normal cell lines. *Nucleic Acids Res*. 2011 Aug; 39(15):e100. Epub 2011 May 27. PMID:21622959 PMCID:3159479 DOI:10.1093/nar/gkr362

20. Reams RR, **Kalari KR**, Wang H, Odedina FT, Soliman KF, Yates C. Detecting gene-gene interactions in prostate disease in African American men. *Infect Agent Cancer*. 2011 Sep 23; 6 Suppl 2:S1. PMID:21992608 PMCID:3194179 DOI:10.1186/1750-9378-6-S2-S1
21. **Kalari KR**, Rossell D, Necela BM, Asmann YW, Nair A, Baheti S, Kachergus JM, Younkin CS, Baker T, Carr JM, Tang X, Walsh MP, Chai HS, Sun Z, Hart SN, Leontovich AA, Hossain A, Kocher JP, Perez EA, Reisman DN, Fields AP, Thompson EA. Deep Sequence Analysis of Non-Small Cell Lung Cancer: Integrated Analysis of Gene Expression, Alternative Splicing, and Single Nucleotide Variations in Lung Adenocarcinomas with and without Oncogenic KRAS Mutations. *Front Oncol*. 2012; 2:12. PMID:22655260 PMCID:3356053 DOI:10.3389/fonc.2012.00012
22. Asmann YW, Middha S, Hossain A, Baheti S, Li Y, Chai HS, Sun Z, Duffy PH, Hadad AA, Nair A, Liu X, Zhang Y, Klee EW, **Kalari KR**, Kocher JP. TREAT: a bioinformatics tool for variant annotations and visualizations in targeted and exome sequencing data. *Bioinformatics*. 2012 Jan 15; 28(2):277-8. Epub 2011 Nov 15. PMID:22088845 PMCID:3259432 DOI:10.1093/bioinformatics/btr612
23. Li L, Schaid DJ, Fridley BL, **Kalari KR**, Jenkins GD, Abo RP, Batzler A, Moon I, Pelleymounter L, Eckloff BW, Wieben ED, Sun Z, Yang P, Wang L. Gemcitabine metabolic pathway genetic polymorphisms and response in patients with non-small cell lung cancer. *Pharmacogenet Genomics*. 2012 Feb; 22: (2)105-16. PMID:22173087 PMCID:3259218 DOI:10.1097/FPC.0b013e32834dd7e2
24. Asmann YW, Necela BM, **Kalari KR**, Hossain A, Baker TR, Carr JM, Davis C, Getz JE, Hostetter G, Li X, McLaughlin SA, Radisky DC, Schroth GP, Cunliffe HE, Perez EA, Thompson EA. Detection of redundant fusion transcripts as biomarkers or disease-specific therapeutic targets in breast cancer. *Cancer Res*. 2012 Apr 15; 72(8):1921-8. Epub 2012 Apr 10. PMID:22496456 DOI:10.1158/0008-5472.CAN-11-3142
25. Niu N, Schaid DJ, Abo RP, **Kalari K**, Fridley BL, Feng Q, Jenkins G, Batzler A, Brisbin AG, Cunningham JM, Li L, Sun Z, Yang P, Wang L. Genetic association with overall survival of taxane-treated lung cancer patients - a genome-wide association study in human lymphoblastoid cell lines followed by a clinical association study. *BMC Cancer*. 2012 Sep 24; 12:422. PMID:23006423 PMCID:3573965 DOI:10.1186/1471-2407-12-422
26. Raghu R, Liu CT, Tsai MH, Tang X, **Kalari KR**, Subramanian S, Sheen LY. Transcriptome analysis of garlic-induced hepatoprotection against alcoholic fatty liver. *J Agric Food Chem*. 2012 Nov 7; 60(44):11104-19. Epub 2012 Oct 26. PMID:23066854 DOI:10.1021/jf303800p
27. **Kalari KR**, Necela BM, Tang X, Thompson KJ, Lau M, Eckel-Passow JE, Kachergus JM, Anderson SK, Sun Z, Baheti S, Carr JM, Baker TR, Barman P, Radisky DC, Joseph RW, McLaughlin SA, Chai HS, Camille S, Rossell D, Asmann YW, Thompson EA, Perez EA. An integrated model of the transcriptome of HER2-positive breast cancer. *PLoS One*. 2013; 8: (11)e79298. PMID:24223926 PMCID:3815156 DOI:10.1371/journal.pone.0079298
28. Norton N, Sun Z, Asmann YW, Serie DJ, Necela BM, Bhagwate A, Jen J, Eckloff BW, **Kalari KR**, Thompson KJ, Carr JM, Kachergus JM, Geiger XJ, Perez EA, Thompson EA. Gene expression, single nucleotide variant and fusion transcript discovery in archival material from breast tumors. *PLoS One*. 2013; 8(11):e81925. Epub 2013 Nov 22. PMID:24278466 PMCID:3838386 DOI:10.1371/journal.pone.0081925
29. Sun Z, Asmann YW, Nair A, Zhang Y, Wang L, **Kalari KR**, Bhagwate AV, Baker TR, Carr JM, Kocher JP, Perez EA, Thompson EA. Impact of library preparation on downstream analysis and interpretation of RNA-Seq data: comparison between Illumina PolyA and NuGEN Ovation protocol. *PLoS One*. 2013; 8(8):e71745. Epub 2013 Aug 19. PMID:23977132 PMCID:3747248 DOI:10.1371/journal.pone.0071745
30. Joseph RW, Parasramka M, Eckel-Passow JE, Serie D, Wu K, Jiang L, **Kalari K**, Thompson RH, Huu Ho T, Castle EP, Cheville J, Kwon ED, Thompson EA, Parker A. Inverse association between programmed death ligand 1 and genes in the VEGF pathway in primary clear cell renal cell carcinoma. *Cancer Immunol Res*. 2013 Dec; 1: (6)378-85. PMID:24778130 PMCID:4322777 DOI:10.1158/2326-6066.CIR-13-0042
31. Tong Y, Niu N, Jenkins G, Batzler A, Li L, **Kalari KR**, Wang L. Identification of genetic variants or genes that are associated with Homoharringtonine (HHT) response through a genome-wide association study in human lymphoblastoid cell lines (LCLs). *Front Genet*. 2014; 5:465. PMID:25628645 PMCID:4292778

DOI:10.3389/fgene.2014.00465

32. Jeraldo P, **Kalari K**, Chen X, Bhavsar J, Mangalam A, White B, Nelson H, Kocher JP, Chia N. IM-TORNADO: a tool for comparison of 16S reads from paired-end libraries. *PLoS One*. 2014; 9: (12)e114804. PMID:25506826 PMCID:4266640 DOI:10.1371/journal.pone.0114804
33. Sabarinathan R, Wenzel A, Novotny P, Tang X, **Kalari KR**, Gorodkin J. Transcriptome-wide analysis of UTRs in non-small cell lung cancer reveals cancer-related genes with SNV-induced changes on RNA secondary structure and miRNA target sites. *PLoS One*. 2014; 9: (1)e82699. PMID:24416147 PMCID:3885406 DOI:10.1371/journal.pone.0082699
34. Li L, Fridley BL, **Kalari K**, Niu N, Jenkins G, Batzler A, Abo RP, Schaid D, Wang L. Discovery of genetic biomarkers contributing to variation in drug response of cytidine analogues using human lymphoblastoid cell lines. *BMC Genomics*. 2014 Feb 01; 15:93. PMID:24483146 PMCID:3930546 DOI:10.1186/1471-2164-15-93
35. **Kalari KR**, Nair AA, Bhavsar JD, O'Brien DR, Davila JI, Bockol MA, Nie J, Tang X, Baheti S, Doughty JB, Middha S, Sicotte H, Thompson AE, Asmann YW, Kocher JP. MAP-RSeq: Mayo Analysis Pipeline for RNA sequencing. *BMC Bioinformatics*. 2014 Jun 27; 15:224. PMID:24972667 PMCID:4228501 DOI:10.1186/1471-2105-15-224
36. Goetz MP, Sun JX, Suman VJ, Silva GO, Perou CM, Nakamura Y, Cox NJ, Stephens PJ, Miller VA, Ross JS, Chen D, Safgren SL, Kuffel MJ, Ames MM, **Kalari KR**, Gomez HL, Gonzalez-Angulo AM, Burgues O, Brauch HB, Ingle JN, Ratain MJ, Yelensky R. Loss of heterozygosity at the CYP2D6 locus in breast cancer: implications for germline pharmacogenetic studies. *J Natl Cancer Inst*. 2014 Dec 08; 107: (2)pii: dju401. PMID:25490892 PMCID:4565524 DOI:10.1093/jnci/dju401
37. Tang X, Baheti S, Shameer K, Thompson KJ, Wills Q, Niu N, Holcomb IN, Boutet SC, Ramakrishnan R, Kachergus JM, Kocher JP, Weinshilboum RM, Wang L, Thompson EA, **Kalari KR**. The eSNV-detect: a computational system to identify expressed single nucleotide variants from transcriptome sequencing data. *Nucleic Acids Res*. 2014 Dec 16; 42: (22)e172. PMID:25352556 PMCID:4267611 DOI:10.1093/nar/gku1005
38. Necela BM, Crozier JA, Andorfer CA, Lewis-Tuffin L, Kachergus JM, Geiger XJ, **Kalari KR**, Serie DJ, Sun Z, Moreno-Aspitia A, O'Shannessy DJ, Maltzman JD, McCullough AE, Pockaj BA, Cunliffe HE, Ballman KV, Thompson EA, Perez EA. Folate receptor-alpha (FOLR1) expression and function in triple negative tumors. *PLoS One*. 2015; 10: (3)e0122209. PMID:25816016 PMCID:4376802 DOI:10.1371/journal.pone.0122209
39. Perez EA, Thompson EA, Ballman KV, Anderson SK, Asmann YW, **Kalari KR**, Eckel-Passow JE, Dueck AC, Tenner KS, Jen J, Fan JB, Geiger XJ, McCullough AE, Chen B, Jenkins RB, Sledge GW, Winer EP, Gralow JR, Reinholz MM. Genomic analysis reveals that immune function genes are strongly linked to clinical outcome in the North Central Cancer Treatment Group n9831 Adjuvant Trastuzumab Trial. *J Clin Oncol*. 2015 Mar 01; 33: (7)701-8. PMID:25605861 PMCID:4334774 DOI:10.1200/JCO.2014.57.6298
40. Du J, Aleff RA, Soragni E, **Kalari K**, Nie J, Tang X, Davila J, Kocher JP, Patel SV, Gottesfeld JM, Baratz KH, Wieben ED. RNA toxicity and missplicing in the common eye disease fuchs endothelial corneal dystrophy. *J Biol Chem*. 2015 Mar 06; 290: (10)5979-90. PMID:25593321 PMCID:4358235 DOI:10.1074/jbc.M114.621607
41. Ingle JN, **Kalari KR**, Buzdar AU, Robson ME, Goetz MP, Desta Z, Barman P, Dudenkov TT, Northfelt DW, Perez EA, Flockhart DA, Williard CV, Wang L, Weinshilboum RM. Estrogens and their precursors in postmenopausal women with early breast cancer receiving anastrozole. *Steroids*. 2015 Jul; 99: (Pt A)32-8. PMID:25163006 PMCID:4339673 DOI:10.1016/j.steroids.2014.08.007
42. Ellingson MS, Hart SN, **Kalari KR**, Suman V, Schahl KA, Dockter TJ, Felten SJ, Sinnwell JP, Thompson KJ, Tang X, Vedell PT, Barman P, Sicotte H, Eckel-Passow JE, Northfelt DW, Gray RJ, McLaughlin SA, Moreno-Aspitia A, Ingle JN, Moyer AM, Visscher DW, Jones K, Connors A, McDonough M, Wieben ED, Wang L, Weinshilboum R, Boughey JC, Goetz MP. Exome sequencing reveals frequent deleterious germline variants in cancer susceptibility genes in women with invasive breast cancer undergoing neoadjuvant chemotherapy. *Breast Cancer Res Treat*. 2015 Sep; 153: (2)435-43. PMID:26296701 PMCID:4559569 DOI:10.1007/s10549-015-3545-6

43. **Kalari KR**, Thompson KJ, Nair AA, Tang X, Bockol MA, Jhawar N, Swaminathan SK, Lowe VJ, Kandimalla KK. BBBomics-Human Blood Brain Barrier Transcriptomics Hub. *Front Neurosci.* 2016; 10:71. PMID:26973449
PMCID:4771746 DOI:10.3389/fnins.2016.00071
44. Zhang H, Liu H, Chen Y, Yang X, Wang P, Liu T, Deng M, Qin B, Correia C, Lee S, Kim J, Sparks M, Nair AA, Evans DL, **Kalari KR**, Zhang P, Wang L, You Z, Kaufmann SH, Lou Z, Pei H. A cell cycle-dependent BRCA1-UHRF1 cascade regulates DNA double-strand break repair pathway choice. *Nat Commun.* 2016 Jan 05; 7:10201. PMID:26727879 PMCID:4728409 DOI:10.1038/ncomms10201
45. Ho MF, Bongartz T, Liu M, **Kalari KR**, Goss PE, Shepherd LE, Goetz MP, Kubo M, Ingle JN, Wang L, Weinshilboum RM. Estrogen, SNP-Dependent Chemokine Expression and Selective Estrogen Receptor Modulator Regulation. *Mol Endocrinol.* 2016 Mar; 30: (3)382-98. PMID:26866883 PMCID:4771694
DOI:10.1210/me.2015-1267
46. Hart SN, Ellingson MS, Schahl K, Vedell PT, Carlson RE, Sinnwell JP, Barman P, Sicotte H, Eckel-Passow JE, Wang L, **Kalari KR**, Qin R, Kruisselbrink TM, Jimenez RE, Bryce AH, Tan W, Weinshilboum R, Wang L, Kohli M. Determining the frequency of pathogenic germline variants from exome sequencing in patients with castrate-resistant prostate cancer. *BMJ Open.* 2016 Apr 15; 6: (4)e010332. PMID:27084275 PMCID:4838679
DOI:10.1136/bmjopen-2015-010332
47. Chen J, Chia N, **Kalari KR**, Yao JZ, Novotna M, Soldan MM, Luckey DH, Marietta EV, Jeraldo PR, Chen X, Weinschenker BG, Rodriguez M, Kantarci OH, Nelson H, Murray JA, Mangalam AK. Multiple sclerosis patients have a distinct gut microbiota compared to healthy controls. *Sci Rep.* 2016 Jun 27; 6:28484. PMID:27346372
PMCID:4921909 DOI:10.1038/srep28484
48. Vu TN, Wills QF, **Kalari KR**, Niu N, Wang L, Rantalainen M, Pawitan Y. Beta-Poisson model for single-cell RNA-seq data analyses. *Bioinformatics.* 2016 Jul 15; 32 (14):2128-35 Epub 2016 Apr 19 PMID:27153638
DOI:10.1093/bioinformatics/btw202
49. Park JH, Jang M, Tarhan YE, Katagiri T, Sasa M, Miyoshi Y, **Kalari KR**, Suman VJ, Weinshilboum R, Wang L, Boughey JC, Goetz MP, Nakamura Y. Clonal expansion of antitumor T cells in breast cancer correlates with response to neoadjuvant chemotherapy. *Int J Oncol.* 2016 Aug; 49: (2)471-8. PMID:27278091 PMCID:4922832
DOI:10.3892/ijo.2016.3540
50. Hieken TJ, Chen J, Hoskin TL, Walther-Antonio M, Johnson S, Ramaker S, Xiao J, Radisky DC, Knutson KL, **Kalari KR**, Yao JZ, Baddour LM, Chia N, Degnim AC. The Microbiome of Aseptically Collected Human Breast Tissue in Benign and Malignant Disease. *Sci Rep.* 2016 Aug 03; 6:30751. PMID:27485780 PMCID:4971513
DOI:10.1038/srep30751
51. Niu N, Liu T, Cairns J, Ly RC, Tan X, Deng M, Fridley BL, **Kalari KR**, Abo RP, Jenkins G, Batzler A, Carlson EE, Barman P, Moran S, Heyn H, Esteller M, Wang L. Metformin pharmacogenomics: a genome-wide association study to identify genetic and epigenetic biomarkers involved in metformin anticancer response using human lymphoblastoid cell lines. *Hum Mol Genet.* 2016 Sep 11; PMID:27616566 DOI:10.1093/hmg/ddw301
52. Matthew P. Goetz, **Krishna R Kalari**, Vera J Suman, Ann M Moyer, Daniel W Visscher, Travis J Dockter, Peter T Vedell, Jason P. Sinnwell, Xiaojia Tang, Kevin J Thompson, Douglas W Mahoney, Erin Carlson, Steven N Hart, Jia Yu, Ping Yin, Bo Qin, Sara J Felten, Sarah A McLaughlin, Alvaro Moreno-Aspitia, John A Copland; Donald W Northfelt, Richard J Gray, Katie Hunt, Amy Connors, Hugues Sicotte, Jeanette E Eckel-Passow, Jean-Pierre Kocher, James N Ingle, Marissa S Ellingson, Michelle McDonough, Eric D Wieben, Richard Weinshilboum, Liewei Wang; Judy C Boughey. Tumor sequencing and patient-derived xenografts in patients treated with neoadjuvant chemotherapy for breast cancer *Journal of the National Cancer Institute* .2016;().
53. Niu N, Liu T, Cairns J, Ly RC, Tan X, Deng M, Fridley BL, **Kalari KR**, Abo RP, Jenkins G, Batzler A, Carlson EE, Barman P, Moran S, Heyn H, Esteller M, Wang L. Metformin pharmacogenomics: a genome-wide association study to identify genetic and epigenetic biomarkers involved in metformin anticancer response using human lymphoblastoid cell lines. *Hum Mol Genet.* 2016 Nov 01; 25 (21):4819-4834 PMID:28173075
DOI:10.1093/hmg/ddw301

54. Ingle JN, Xie F, Ellis MJ, Goss PE, Shepherd LE, Chapman JW, Chen BE, Kubo M, Furukawa Y, Momozawa Y, Stearns V, Pritchard KI, Barman P, Carlson EE, Goetz MP, Weinshilboum RM, **Kalari KR**, Wang L. Genetic Polymorphisms in the Long Noncoding RNA MIR2052HG Offer a Pharmacogenomic Basis for the Response of Breast Cancer Patients to Aromatase Inhibitor Therapy. *Cancer Res.* 2016 Dec 01; 76 (23):7012-7023 Epub 2016 Oct 10 PMID:27758888 PMCID:5135610 DOI:10.1158/0008-5472.CAN-16-1371
55. Gupta M, Neavin D, Liu D, Biernacka J, Hall-Flavin D, Bobo WV, Frye MA, Skime M, Jenkins GD, Batzler A, **Kalari K**, Matson W, Bhasin SS, Zhu H, Mushiroda T, Nakamura Y, Kubo M, Wang L, Kaddurah-Daouk R, Weinshilboum RM. TSPAN5, ERICH3 and selective serotonin reuptake inhibitors in major depressive disorder: pharmacometabolomics-informed pharmacogenomics. *Mol Psychiatry.* 2016 Dec; 21 (12):1717-1725 Epub 2016 Feb 23 PMID:26903268 PMCID:5003027 DOI:10.1038/mp.2016.6
56. Nair AA, Niu N, Tang X, Thompson KJ, Wang L, Kocher JP, Subramanian S, **Kalari KR**. Circular RNAs and their associations with breast cancer subtypes. *Oncotarget.* 2016 Dec 06; 7 (49):80967-80979 PMID:27829232 PMCID:5348369 DOI:10.18632/oncotarget.13134
57. Liu D, Ho MF, Schaid DJ, Scherer SE, **Kalari K**, Liu M, Biernacka J, Yee V, Evans J, Carlson E, Goetz MP, Kubo M, Wickerham DL, Wang L, Ingle JN, Weinshilboum RM. Breast cancer chemoprevention pharmacogenomics: Deep sequencing and functional genomics of the ZNF423 and CTSO genes. *NPJ Breast Cancer.* 2017; 3:30 Epub 2017 Aug 21 PMID:28856246 PMCID:5566425 DOI:10.1038/s41523-017-0036-4
58. Wieben ED, Aleff RA, Tang X, Butz ML, **Kalari KR**, Highsmith EW, Jen J, Vasmatzis G, Patel SV, Maguire LJ, Baratz KH, Fautsch MP. Trinucleotide Repeat Expansion in the Transcription Factor 4 (TCF4) Gene Leads to Widespread mRNA Splicing Changes in Fuchs' Endothelial Corneal Dystrophy. *Invest Ophthalmol Vis Sci.* 2017 Jan 01; 58: (1)343-352. PMID:28118661 PMCID:5270622 DOI:10.1167/iops.16-20900
59. Athreya AP, Gaglio AJ, Kalbarczyk ZT, Iyer RK, Cairns J, **Kalari KR**, Weinshilboum RM, Wang L. Unsupervised single-cell analysis in triple-negative breast cancer: A case study Proceedings - 2016 IEEE International Conference on Bioinformatics and Biomedicine, BIBM 2016. 2017; 556-63.
60. Athreya AP, **Kalari KR**, Cairns J, Gaglio AJ, Wills QF, Niu N, Weinshilboum R, Iyer RK, Wang L. Model-based unsupervised learning informs metformin-induced cell-migration inhibition through an AMPK-independent mechanism in breast cancer. *Oncotarget.* 2017 Apr 18; 8: (16)27199-27215. PMID:28423712 PMCID:5432329 DOI:10.18632/oncotarget.16109
61. Kevin, James, Xiaojia, Nicholas, Patricio, Marina, Karunya, Stephen, Janet, Sean, Vera, Liewei, Richard, Judy, Jean-Pierre, Heidi, Matthew P. Goetz, **Kalari KR**. The Breast Cancer Microbiome and Host Biology Computational Biology and Chemistry.2017;
62. Dudenkov TM, Ingle JN, Buzdar AU, Robson ME, Kubo M, Ibrahim-Zada I, Batzler A, Jenkins GD, Pietrzak TL, Carlson EE, Barman P, Goetz MP, Northfelt DW, Moreno-Aspita A, Williard CV, **Kalari KR**, Nakamura Y, Wang L, Weinshilboum RM. SLCO1B1 polymorphisms and plasma estrone conjugates in postmenopausal women with ER+ breast cancer: genome-wide association studies of the estrone pathway. *Breast Cancer Res Treat.* 2017 Jul; 164 (1):189-199 Epub 2017 Apr 20 PMID:28429243 PMCID:5600471 DOI:10.1007/s10549-017-4243-3
63. Goetz MP, **Kalari KR**, Suman VJ, Moyer AM, Yu J, Visscher DW, Dockter TJ, Vedell PT, Sinnwell JP, Tang X, Thompson KJ, McLaughlin SA, Moreno-Aspitia A, Copland JA, Northfelt DW, Gray RJ, Hunt K, Connors A, Weinshilboum R, Wang L, Boughey JC. Tumor Sequencing and Patient-Derived Xenografts in the Neoadjuvant Treatment of Breast Cancer. *J Natl Cancer Inst.* 2017 Jul 01; 109: (7). PMID:28376176 PMCID:5408989 DOI:10.1093/jnci/djw306
64. Ho MF, Ingle JN, Bongartz T, **Kalari KR**, Goss PE, Shepherd LE, Mushiroda T, Kubo M, Wang L, Weinshilboum RM. TCL1A Single-Nucleotide Polymorphisms and Estrogen-Mediated Toll-Like Receptor-MYD88-Dependent Nuclear Factor-kappaB Activation: Single-Nucleotide Polymorphism- and Selective Estrogen Receptor Modulator-Dependent Modification of Inflammation and Immune Response. *Mol Pharmacol.* 2017 Aug; 92 (2):175-184 Epub 2017 June 14 PMID:28615284 PMCID:5508195 DOI:10.1124/mol.117.108340

65. Emad A, Cairns J, **Kalari KR**, Wang L, Sinha S. Knowledge-guided gene prioritization reveals new insights into the mechanisms of chemoresistance. *Genome Biol.* 2017 Aug 11; 18 (1):153 PMID:28800781 PMCID:5554409 DOI:10.1186/s13059-017-1282-3
66. Leon-Ferre RA, Polley MY, Liu H, Gilbert JA, Cafourek V, Hillman DW, Elkhanany A, Akinhanmi M, Lilyquist J, Thomas A, Negron V, Boughey JC, Liu MC, Ingle JN, **Kalari KR**, Couch FJ, Visscher DW, Goetz MP. Impact of histopathology, tumor-infiltrating lymphocytes, and adjuvant chemotherapy on prognosis of triple-negative breast cancer. *Breast Cancer Res Treat.* 2017 Sep 14 Epub 2017 Sept 14 PMID:28913760 DOI:10.1007/s10549-017-4499-7
67. Wang L, Dehm SM, Hillman DW, Sicotte H, Tan W, Gormley M, Bhargava V, Jimenez R, Xie F, Yin P, Qin S, Quevedo F, Costello BA, Pitot HC, Ho T, Bryce AH, Ye Z, Li Y, Eiken P, Vedell PT, Barman P, McMenomy BP, Atwell TD, Carlson RE, Ellingson M, Eckloff B, Qin R, Ou F, Hart SN, Huang H, Jen J, Wieben ED, **Kalari KR**, Weinshilboum RM, Wang L, Kohli M. A Prospective Genome-Wide Study of Prostate Cancer Metastases Reveals Association of Wnt Pathway Activation and Increased Cell Cycle Proliferation with Primary Resistance to Abiraterone Acetate-Prednisone. *Ann Oncol.* 2017 Oct 23 [Epub ahead of print] PMID:29069303 DOI:10.1093/annonc/mdx689

Abstracts

1. Li L, Fridley B, **Kalari K**, Jenkins GD, Batzler A, Hildebrandt MA, Safgren SL, Ames MM, Schaid DJ, Wang L. Pharmacogenomics of cytidine analogues: Application of a cell-based model system. *Clin Pharmacol Ther.* 2008 Mar; 83(Suppl 1):S17.
2. Aksoy P, Zhu M, **Kalari KR**, Moon I, Pellemounter LL, Eckloff BW, Wieben ED, Yee VC, Weinshilboum R, Wang L. Cytosolic 5'-nucleotidase Iii (Nt5c3) gene sequence variation and functional genomics: cytosine arabinoside and gemcitabine pharmacogenetics. *Clin Pharmacol Ther.* 2009 Jan; 85(Suppl 1):S47-8.
3. Li L, Fridley B, **Kalari K**, Jenkins G, Batzler A, Weinshilboum R, Wang L. Gemcitabine and cytosine arabinoside pharmacogenomics: identification of biomarkers using a genome-wide association approach and in vitro cell-based model. *Clin Pharmacol Ther.* 2010 Feb; 87(Suppl 1):S82.
4. Li L, Schaid DJ, Fridley BL, Abo RP, **Kalari K**, Jenkins G, Batzler A, Pellemounter LL, Sun Z, Yang P, Wang L. Effect of gemcitabine pathway genetic polymorphisms on overall survival of non-small cell lung cancer treated with gemcitabine. *Clin Pharmacol Ther.* 2011 Feb; 89(Suppl 1):S67-8.
5. Niu N, Schaid DJ, Fridley BL, **Kalari K**, Li L, Jenkins G, Batzler A, Sun Z, Yang P, Wang L. Genetic polymorphisms related to paclitaxel-induced cytotoxicity in lymphoblastoid cell lines and overall survival in lung cancer patients after paclitaxel-based chemotherapy. *Clin Pharmacol Ther.* 2011 Feb; 89(Suppl 1):S1.
6. Niu N, Schaid DJ, Fridley BL, **Kalari K**, Li L, Jenkins G, Batzler A, Sun Z, Yang P, Wang L. Genetic polymorphisms related to paclitaxel-induced cytotoxicity in lymphoblastoid cell lines and overall survival in lung cancer patients after paclitaxel-based chemotherapy. *Clin Pharmacol Ther.* 2011 Feb; 89(Suppl 1):S67.
7. Joseph RW, Asmann Y, Eckel-Passow J, **Kalari R**, Thompson A, Serie D, Parker A. Detection of Fusion Transcripts (FTs) in primary clear cell Renal Cell Carcinoma Tumors Using RNA seq. Individualizing Medicine Conference Rochester, MN. 2012 Oct.
8. Thompson KJ, Tang X, Sinnwell JP, Vedell PT, Dockter TJ, Suman VJ, Ingle JN, Weinshilboum R, Boughey JC, Wang L, Goetz MP, **Kalari KR**. Gene expression analyses of RNA-Sequencing data across multiple cancers to identify Basal-like cancer subtypes. ISMB Boston MA, Poster. 2014.
9. Goetz MP, Barrett MT, **Kalari KR**, Suman VJ, McLaughlin S, Moreno-Aspitia A, Moyer AM, Northfelt DW, Gray RJ, Sinnwell J, Mahoney D, Barman P, Vedell P, Tang X, Thompson K, Dockter T, Jones K, Felten SJ, Connors A, Eckel-Passow J, Sicotte H, Hart SN, Yu J, Visscher DW, Wieben ED, Schultz C, Liu MC, Ingle JN, Wang L,

- Weinshilboum RW, Boughey JC. Impact of neoadjuvant chemotherapy on the clonal composition of breast cancer. San Antonio Breast Cancer Symposium, San Antonio TX. 2014.
10. Swaminathan SK, Jaruszewski K, Curran G, Omtri RS, **Kalari KR**, Poduslo JF, Kadimalla KK. Insulin signaling modulates trafficking of the beta-amyloid peptides at the blood-brain barrier. American Association & Pharmaceutical Scientists Annual Meeting -. 2014.
 11. Thompson KJ, Tang X, Sun Z, Sinnwell JP, Sicotte H, Mahoney DW, Hart S, Vedell PT, Barman P, Eckel Passow JE, Wieben ED, Ingle JN, Boughey JC, Wang L, Weinshilboum R, **Kalari KR**, Goetz MP. Molecular classification of triple negative breast cancer via RNA-sequencing data. American Academy of Cancer Research Annual Meeting. 2014:12.
 12. Boughey JC, Yu J, Yin P, Gao B, Sinnwell JP, Moyer AM, Visscher DW, Connors AL, Dockter TJ, **Kalari KR**, Jones KN, McLaughlin SA, Copland JA, Moreno-Aspitia A, Northfelt DW, Gray RJ, Suman VJ, Weinshilboum RM, Goetz MP, Wang L. Patient derived xenografts from breast cancer patients before and after neoadjuvant chemotherapy: A prospective study. ASCO Annual Meeting [poster]. 2014.
 13. Tang X, Thompson KJ, Nair A, **Kalari KR**. Transcriptome analysis of expressed single nucleotide variants in the 3' UTR of ER-positive breast tumor. Intelligent Systems for Molecular Biology Conference, Boston MA., 2014.
 14. Weinshilboum RM, Schaid DJ, **Scherer SE**, Kalari K, Liu D, Liu M, Yee V, Evans J, Carlson E, Goetz MP, Kubo M, Wickerman DL, Wang L, Ingle JN. ZNF423 Deep resequencing: selective estrogen receptor modular (SERM) pharmacogenomic mechanisms. Proc Personal Genomes: Discovery, Treatment & Outcomes. Cold Spring Harbor Laboratory Conference. 2014:75.
 15. Moyer AM, **Kalari KR**, Thompson KJ, Visscher DW, Suman VJ, Eckel-Passow J, Sicotte H, Hart SN, Sinnwell JP, Dockter TJ, Jones KN, Connors AL, Tang X, Yu J, Gao B, Mahoney DW, Barman P, Vedell P, McLaughlin SA, Aspitia AM, Northfelt DW, Gray RJ, Wieben ED, Farrugia G, Schultz C, Ingle JN, Wang L, Boughey JC, Weinshilboum RM, Goetz MP. Transcriptome-wide association of mki67 expression: pre- and post-neoadjuvant paclitaxel. Lab Invest. 2014 Feb; 94:69A.
 16. Moyer AM, **Kalari KR**, Thompson KJ, Visscher DW, Suman VJ, Eckel-Passow J, Sicotte H, Hart SN, Sinnwell JP, Dockter TJ, Jones KN, Connors AL, Tang X, Yu J, Gao B, Mahoney DW, Barman P, Vedell P, McLaughlin SA, Aspitia AM, Northfelt DW, Gray RJ, Wieben ED, Farrugia G, Schultz C, Ingle JN, Wang L, Boughey JC, Weinshilboum RM, Goetz MP. Transcriptome-wide association of mki67 expression: pre- and post-neoadjuvant paclitaxel. Mod Pathol. 2014 Feb; 27:69A.
 17. Yu J, Yin P, Gao B, Sinnwell JP, Moyer AM, Visscher DW, Connors AL, Dockter TJ, **Kalari KR**, Tang X, Thompson KJ, Sicotte H, Mahoney DW, Hart SN, Vedell PT, Barman P, Jones KN, McLaughlin SA, Coplan JA, Moreno-Aspitia A, Northfelt DW, Gray RJ, Suman VJ, Eckel Passow JE, Wieben ED, Ingle JN, Lou Z, Farrugia G, Weinshilboum R, Goetz MP, Boughey JC, Wang L. Feasibility of using percutaneous tumor biopsies from a prospective neoadjuvant breast cancer study to develop patient derived xenografts and assess in vivo chemotherapy sensitivity. AACR Annual Meeting. 2014 Apr. Abstract no. 1195.
 18. Perez EA, Thompson EA, Anderson SK, Asmann YW, **Kalari KR**, Eckel-Passow J, Dueck AC, Tenner KS, Jen J, Fan JB, Geiger K, McCullough AE, Chen B, Zschunke M, Jenkins RB, Sledge GW, Winer EP, Gralow J, Madden Reinholz M, Ballman KV. Genomic analysis reveals that immune function genes are strongly linked to clinical outcome in the NCCTG (Alliance) N9831 adjuvant trastuzumab trial. ASCO Annual Meeting. 2014 May.
 19. Perez EA, Thompson EA, Anderson SK, Asmann YW, **Kalari KR**, Eckel-Passow J, Dueck AC, Tenner KS, Jen J, Fan J, Geiger X, McCullough AE, Chen B, Zschunke M, Jenkins RB, Sledge GW, Winer EP, Gralow J, Reinholz MM, Ballman KV. Association of genomic analysis of immune function genes and clinical outcome in the NCCTG (Alliance) N9831 adjuvant trastuzumab trial. 2014 American Society of Clinical Oncology (ASCO) annual meeting-Clinical Science Symposium, Chicago IL. 2014 May 31. Abstract no. 509.
 20. Thompson EA, Necela BM, Carr JM, Kachergus JM, Serie D, **Kalari KR**, Asmann YW, Perez EA. Identification and targeting of M-phase progression downstream of HER2 in trastuzumab-sensitive and -resistant breast

cancer cell lines. American Society of Clinical Oncology Conference. 2014 June.

21. **Kalari KR**, Saurabh B, Tang X, Thompson KJ, Jeraldo P, Weinshilboum R, Wang L, Boughey JC, Ingle JN, Goetz MP, Nelson H, Chai N. Horizontal gene transfer incident detector (HGT-ID): A novel computational system to identify horizontal gene transfer candidates from sequencing data. International Conference on Intelligent Systems for Molecular Biology. 2014 Jul.
22. Nair A, Thompson KJ, Tang X, Kocher JPA, Subbaya S, **Kalari K**. Identification of circular RNAs (circRNAs) and their potential regulation in Breast Cancer Subtypes. ISMB Conference, Boston, MA Poster. 2014 July.
23. **Kalari KR**, Tang X, Thompson KJ, Mahoney DW, Barman P, Sinnwell JP, Sicotte H, Vedell P, Hart SN, Dockter TJ, Jones KN, Conners AL, Moyer AM, Visscher DW, Yu J, Gao B, McLaughlin SA, Copland JA, Moreno-Aspitia A, Northfelt DW, Gray RJ, Suman VJ, Eckel Passow JE, Kocher JPA, Wieben ED, Farrugia G, Schultz CG, Ingle JN, Weinshilboum R, Goetz MP, Wang LW, Boughey JC. Analysis of sequencing data to identify potential drug targets for an individual newly diagnosed with basal breast cancer who failed to respond to current standard neoadjuvant chemotherapy. *Cancer Res.* 2014 Oct 1; 74(19).
24. Nair A, Kocher JP, Subramanian S, **Kalari KR**. CircRNAdb - A catalog of circular RNAs. Individualized Medicine Conference Rochester, MN Poster. 2014 Oct.
25. **Kalari KR**, Suman VJ, Sinnwell JP, Tang X, Dockter TJ, Thompson KJ, Vedell PT, Moyer AM, Eckloff BW, Barman P, Mahoney DW, Jones KN, Conners AL, Visscher DW, Yu J, Qin B, Gao B, Ellingson M, Sicotte H, McLaughlin SA, Copland JA, Moreno-Aspitia A, Northfelt DW, Gray RJ, Hart SN, Eckel Passow J, Kocher JPA, Wieben ED, Farrugia G, Schultz C, Liu MC, Zhenkun L, Ingle JN, Weinshilboum R, Wang L. Gene expression analysis in triple-negative breast cancers following neoadjuvant chemotherapy. Individualizing Medicine Conference, Rochester, MN Poster. 2014 Oct.
26. Ellingson MS, Schahl KA, **Kalari KR**, Eckel-Passow JE, Sinnwell JP, Vedell PT, Mahoney DW, Barman P, Tang X, Thompson KJ, Northfelt DW, Gray RJ, McLaughlin SA, Moreno-Aspitia A, Sicotte H, Hart S, Wang L, Weinshilboum RM, Goetz MP, Boughey JC. Identification of actionable germline mutations in women newly diagnosed with high risk breast cancer enrolled in the Breast cancer genome guided therapy study (BEAUTY). Individualizing Medicine Conference, Rochester MN. 2014 Oct.
27. Tang X, Thompson KJ, Nair AA, **Kalari KR**. Investigation of Human Endogenous Retrovirus in Breast Tumors. Individualized Medicine Conference Rochester, MN. 2014 Oct.
28. **Kalari KR**, Biernacka JM, Gregory JD, Batzler A, Carlson EE, Barman P, Jhavar N, Weinshilboum R, Wang L. LCLbio: A computational platform to obtain genomics and pharmacologic associations from lymphoblastoid cell lines. Individualizing Medicine Conference, Rochester MN. 2014 Oct.
29. Thompson KJ, Tang XJ, Sun ZF, Sinnwell JP, Sicotte H, Mahoney DW, Hart S, Vedell PT, Barman P, Eckel Passow JE, Wieben ED, Ingle JN, Boughey JC, Wang LW, Weinshilboum R, **Kalari KR**, Goetz MP. Molecular classification of triple negative breast cancer via rna-sequencing data. *Cancer Res.* 2014 Oct 1; 74(19).
30. Kohli M, Wang L, Tan W, Jimenez RR, Qin R, Sicotte H, Wang L, Eckel-Passow J, Hart S, Mahoney D, Barman P, Vedell P, **Kalari KR**, Carlson R, Costello BA, Eiken P, Atwell T, McMenomy B, Weiben ED, Jen J, Eckloff BW, Anderson S, Kolbert C, Bryce AH, Thai H, Addo F, Ranganwala M, Singh A, Cockerill K, Burns D, Basu S, Chakrabarti S, Misischia M, Weinshilboum R. Prostate Cancer Medically Optimized Genome Enhanced Therapy ("PROMOTE"): A Mayo Clinic and Mayo Health Systems (MHS) study of pharmacogenetic markers associated with primary resistance to Abiraterone acetate/prednisone (AA/P) in metastatic castrate resistance prostate cancer (CRPC). Individualizing Medicine Conference. 2014 Oct.
31. Sicotte H, Prodduturi N, Johnson JA, Lin Y, Decker PA, Eckel-Passow JE, Atkinson EA, Slettedahl SW, Olswold CL, Jenkins RB, Goetz MP, Weinshilboum R, Boughey JC, Wang L, **Kalari KR**, McDonnell SK, de Andrade M, Kocher JPA. Single Sample Genotype imputation using EZimputer improves variant calling from Next Generation Sequencing (NGS). Individualizing Medicine Conference Rochester MN Poster. 2014 Oct.

32. Thompson KJ, **Kalari KR**, Suman V, Tang X, Sinnwell JP, Vedell PT, Wieben ED, Ingle JN, Weinshilboum R, Wang L, Boughey JC, Goetz MP. AR-v7 Prevalence in Luminal Androgen Receptor Populations of Triple Negative breast Cancers. Individualizing Medicine Conference. 2015.
33. Vedell PT, **Kalari KR**, Bhagwate AV, Tang X, Sinnwell J, Thompson KJ, Dockter T, Eckloff BW, Suman V, Wieben ED, Kocher JPA, Ingle JN, Weinshilboum R, Wang L, Goetz MP, Boughey JC. Detection of somatic DNA structural variants by split read and read pair methods using exome-sequencing of breast tumor-blood samples. Individualizing Medicine Conference, Rochester, MN. 2015.
34. Tang X, **Kalari KR**, Suman V, Thompson KJ, Sinnwell J, Vedell PT, Dockter T, Ingle JN, Weinshilboum R, Wang L, Goetz MP, Boughey JC. Investigation of non-responders with ER+/HER2+ breast cancer subtype in a neoadjuvant. Individualizing Medicine Conference. 2015.
35. Athreya AP, Tang X, Niu N, Nair A, Thompson KJ, Holcomb IN, Boutet SC, Ramakrishnan R, Kocher JPA, Will Q, Weinshilboum R, Iyer RK, Wang L, **Kalari KR**. MiMoSA: Mixture-Model Clustering for Single-Cell Analysis. Individualizing Medicine Conference. 2015.
36. Nair A, Niu N, Kocher JP, Wang L, Subramanian S, **Kalari K**. Novel circular RNA identified in breast tumors and validated in cancer cell lines. Individualizing Medicine Conference. 2015.
37. Boughey JC, **Kalari KR**, Tang X, Thompson KJ, Mahoney DW, Barman P, Sinnwell JP, Sicotte H, Vedell P, Hart SN, Dockter TJ, Jones KN, Connors AL, Moyer AM, Visscher DW, Yu J, Gao B, McLaughlin SA, Copland JA, Moreno-Aspitia A, Northfelt DW, Gray RJ, Suman VJ, Eckel Passow JE, Kocher JPA, Wieben ED, Farrugia G, Schultz CG, Ingle JN, Weinshilboum R, Goetz MP, Wang LW. Role of germline BRCA status and tumor homologous recombination (HR) deficiency in response to neoadjuvant weekly paclitaxel followed by anthracycline-based chemotherapy. Proceedings of San Antonio Breast Cancer Symposium. 2015.
38. Hieken TJ, Chia N, **Kalari KR**, Hoskin TL, Thompson K, Ramaker S, Baddour LM, Ballman KV, Degnim AC. The Human Breast Microbiome in Benign and Malignant Disease States. Individualizing Medicine Conference. 2015.
39. Neavin D, Taddei A, Ray B, Biernacka J, Zhu H, Jenkins G, **Kalari K**, Mushiroda T, Nakamura S, Kubo M, Matson W, Kaddurah-Daouk R, Wang L, Weinshilboum R. Tryptophan metabolite ratio pharmacogenomics: SOD2 as a marker for SSRI response in patients with major depressive disorder (MDD). American Society Clinical Pharmacology Therapeutics -. 2015.
40. Ray B, Boakye-Agyeman F, Zhu H, Biernacka J, Liu D, Taddei A, Jenkins G, **Kalari K**, Mushiroda T, Kubo M, Nakamura Y, Matson W, Wang L, Kaddurah-Daouk R, Weinshilboum RM. Aryl hydrocarbon receptor (ahr) genetic variation associated with kynurenine levels in major depressive disorder: pharmacometabolomics-informed pharmacogenomics. Clin Pharmacol Ther. 2015 Feb; 97:S17-8.
41. Neavin D, Taddei A, Ray B, Biernacka J, Zhu H, Jenkins G, **Kalari K**, Mushiroda T, Nakamura Y, Kubo M, Matson W, Wang L, Kaddurah-Daouk R, Weinshilboum R. Tryptophan metabolite ratio pharmacogenomics and pharmacometabolomics: sod2 as a marker for ssri response in patients with major depressive disorder (mdd). Clin Pharmacol Ther. 2015 Feb; 97:S15.
42. Hieken TJ, Chia N, **Kalari KR**, Hoskin TL, Thompson K, Ramaker S, Baddour LM, Ballman KV, Amy C Degnim AC. Exploring the human breast microbiome in benign and malignant disease states. International Human Microbiome Congress Luxembourg,. 2015 Mar.
43. Ray B, Boakye-Agyeman F, Zhu HJ, Biernacka J, Liu D, Biendarra S, Jenkins G, **Kalari K**, Mushiroda T, Nakamura Y, Kubo M, Matson W, Wang LW, Kaddurah-Daouk R, Weinshilboum R. Aryl hydrocarbon receptor (AHR) genetic variation is associated with baseline plasma kynurenine (KYN) concentrations in major depressive disorder (MDD) mediated by ahr-repressor (AHRR): a pharmacometabolomics-informed pharmacogenomic study. Biol Psychiatry. 2015 May 1; 77(9):330S-1S.

44. Goetz MP, Barrett MT, **Kalari KR**, Suman VJ, McLaughlin SA, Moreno-Aspitia A, Moyer AM, Northfelt DW, Gray RJ, Sinnwell J, Mahoney D, Barman P, Vedell P, Tang XJ, Thompson K, Dockter T, Jones K, Felten SJ, Connors A, Eckel-Passow J, Sicotte H, Hart SN, Yu J, Visscher DW, Wieben ED, Schultz C, Liu MC, Ingle JN, Wang LW, Weinshilbourn RW, Boughey JC. Impact of neoadjuvant chemotherapy on the clonal composition of breast cancer. *Cancer Res.* 2015 May 1; 75(9).
45. Bidadi B, **Kalari KR**, Rubner M, Hein A, Beckmann MW, Fasching PA, Rack B, Janni W, Weinshilbourn R, Wang L. Utilizing a pathway based analysis of genome wide association data to identify biomarkers of toxicity in breast cancer patients *Cancer Research.* 2015 Aug 1; 75:
46. **Kalari KR**, Liu H, Thompson KJ, Zhang C, Tang X, Kocher JP, Ingle JN, Weinshilbourn R, Boughey JC, Wang L, Goetz MP. BROCH - Breast OmiCs Hub. Individualizing Medicine Conference Rochester, MN Poster. 2015 Sept.
47. Baheti S, Tang X, O'Brien DR, Chia N, Dhanasekaran R, Lewis RR, Goetz MP, Kocher JP, **Kalari KR**. Horizontal Gene Transfer Incident Detector (HGT-ID): A novel approach to identify horizontal gene transfer candidates from next generation sequencing data. Individualizing Medicine Conference Rochester, MN Poster. 2015 Sept.
48. Swaminathan S, Jaruszewski K, Curran G, Decklever T, Omtri R, **Kalari K**, Poduslo J, Lowe V, Kandimalla K. Insulin mediated regulation of the beta amyloid peptide trafficking at the blood-brain barrier. AAPS Annual Meeting. 2015 Oct.
49. Dudenkov TM, Ingle JN, **Kalari KR**, Desta Z, Buzdar AU, Robson ME, Goetz MP, Northfelt DW, Perez EA, Kubo M, Wang LW, Weinshilbourn R. Genes associated with plasma anastrozole, an aromatase inhibitor, and hydroxyanastrozole glucuronide concentrations in postmenopausal women with estrogen receptor positive (er plus) breast cancer *Drug Metabolism Reviews.* 2015 Nov 20; 47:213-4.
50. Moyer AM, Boughey JC, **Kalari KR**, Suman VJ, McLaughlin SA, Aspitia AM, Northfelt DW, Gray RJ, Sinnwell JP, Carlson EE, Dockter TJ, Hunt KN, Felten SJ, Connors AL, Wieben ED, Ingle JN, Wang L, Weinshilbourn RM, Visscher DW, Goetz MP. Differential mRNA Expression Patterns in Breast Tumors with High vs. Breast Cancer Symposium San Antonio, TX. Poster. December 2015.
51. Yu J, Qin B, Boughey JC, Moyer AM, Visscher DW, Sinnwell JP, **Kalari K**, Copland JA, Gray RJ, Ingle JN, Zhenkun L, Weinshilbourn R, Goetz MP, Liewei W. Regulation of DNA methyltransferases via TRAF6 determines breast cancer response to decitabine. Breast Cancer Symposium San Antonio, TX. Poster. December 2015.
52. Liu D, **Kalari KR**, Wang L, Weinshilbourn R. A novel model for genetic variation modulating aryl hydrocarbon receptor (ahr) function: snp-dependent cyp1a1 induction *Drug Metabolism Reviews.* 2016; 48:129.
53. Breitenstein MK, Berger R, Bos S, Cascante M, Hankemeier T, Harms AC, Kaddurah-Daouk RF, **Kalari KR**, Koval VV, Marin S, Moon I, Nair KS, Persson M, Weinshilbourn RM, Wang L. A metformin metabolomic expression profile study utilizing an electronic health record (ehr)-linked biorepository and integrative molecular epidemiology approaches *Clinical Pharmacology & Therapeutics.* 2016 Feb; 99:S30.
54. Cairns J, Ingle J, Dudenkov T, **Kalari K**, Buzdar A, Kubo M, Robson M, Ellis M, Goss P, Shepherd L, Weinshilbourn R, Wang L. Aromatase inhibitor-induced hormone level change associated with csmd1 snp and androstenedione-dependent variation in aromatase expression *Clinical Pharmacology & Therapeutics.* 2016 Feb; 99:S84-5.
55. Wu X, Boughey JC, Moyer AM, **Kalari KR**, Suman VJ, Sinnwell JP, Carlson EE, Dockter TJ, Moreno-Aspitia A, Gray RJ, McLaughlin SA, Northfelt DW, Jones KN, Connors AL, Wieben ED, Wang L, Weinshilbourn RM, Goetz M, Visscher DW. Clinical-pathologic analysis of luminal b breast carcinoma *Laboratory Investigation.* 2016 Feb; 96:78A.

56. Wu X, Boughey JC, Moyer AM, **Kalari KR**, Suman VJ, Sinnwell JP, Carlson EE, Dockter TJ, Moreno-Aspitia A, Gray RJ, McLaughlin SA, Northfelt DW, Jones KN, Conners AL, Wieben ED, Wang L, Weinshilboum RM, Goetz M, Visscher DW. Clinical-pathologic analysis of luminal b breast carcinoma *Modern Pathology*. 2016 Feb; 29:78A.
57. Moyer AM, Visscher DW, Suman VJ, Dockter TJ, **Kalari KR**, Northfelt DW, McLaughlin SA, Moreno-Aspitia A, Gray RJ, Boughey JC, Goetz M. Cytologic characteristics of resistant locally advanced breast carcinoma after neoadjuvant treatment *Laboratory Investigation*. 2016 Feb; 96:59A-60A.
58. Moyer AM, Visscher DW, Suman VJ, Dockter TJ, **Kalari KR**, Northfelt DW, McLaughlin SA, Moreno-Aspitia A, Gray RJ, Boughey JC, Goetz M. Cytologic characteristics of resistant locally advanced breast carcinoma after neoadjuvant treatment *Modern Pathology*. 2016 Feb; 29:59A-60A.
59. Liu D, Neavin DR, Zhang J, Biernacka JM, Zhu H, Jenkins GD, **Kalari KR**, Mushiroda T, Nakamura Y, Kubo M, Matson W, Wang L, Kaddurah-Daouk R, Weinshilboum R. Erich3 genetic variation associated with plasma serotonin and change in plasma serotonin after ssri therapy: pharmacometabolomics-informed pharmacogenomics *Clinical Pharmacology & Therapeutics*. 2016 Feb; 99:S106.
60. Liu D, Neavin DR, Zhang J, Biernacka JM, Zhu H, Jenkins GD, **Kalari KR**, Mushiroda T, Nakamura Y, Kubo M, Matson W, Wang L, Kaddurah-Daouk R, Weinshilboum R. Erich3 genetic variation associated with plasma serotonin and change in plasma serotonin after ssri therapy: pharmacometabolomics-informed pharmacogenomics *Clinical Pharmacology & Therapeutics*. 2016 Feb; 99:S17.
61. Moyer AM, Wu X, Visscher DW, **Kalari KR**, Thompson KJ, Tang X, Suman VJ, Dockter TJ, McLaughlin SA, Moreno-Aspitia A, Northfelt DW, Gray RJ, Jones KN, Conners AL, Wieben ED, Wang L, Weinshilboum RM, Goetz M, Boughey JC. Luminal androgen receptor (lar) subtype breast cancers are not histologically defined by apocrine morphology *Laboratory Investigation*. 2016 Feb; 96:59A.
62. Moyer AM, Wu X, Visscher DW, **Kalari KR**, Thompson KJ, Tang X, Suman VJ, Dockter TJ, McLaughlin SA, Moreno-Aspitia A, Northfelt DW, Gray RJ, Jones KN, Conners AL, Wieben ED, Wang LW, Weinshilboum RM, Goetz M, Boughey JC. Luminal androgen receptor (lar) subtype breast cancers are not histologically defined by apocrine morphology *Modern Pathology*. 2016 Feb; 29:59A.
63. Moyer AM, Boughey JC, **Kalari KR**, Suman VJ, McLaughlin SA, Moreno-Aspitia A, Northfelt DW, Gray RJ, Sinnwell JP, Carlson EE, Dockter TJ, Jones KN, Felten SJ, Conners AL, Wieben ED, Ingle JN, Wang L, Weinshilboum RM, Visscher DW, Goetz MP. Differential mrna expression patterns in breast tumors with high vs. low quantity of stromal tumor-infiltrating lymphocytes *Cancer Research*. 2016 Feb 15; 76:
64. Reese J, Bruinsma E, Subramaniam M, Suman V, Pitel K, **Kalari K**, Yu J, Wang L, Goetz M, Ingle J, Hawse J. Er beta elicits tumor suppressive effects in triple negative breast cancer through the induction of cystatins and suppression of tgf beta signaling *Cancer Research*. 2016 Feb 15; 76:
65. Yu J, Qin B, Boughey JC, Moyer AM, Visscher DW, Sinnwell JP, Yin P, Thompson KJ, Docter TJ, **Kalari KR**, Suman VJ, Wieben ED, Felten SJ, Conners AL, Jones KN, McLaughlin SA, Copland JA III, Moreno Aspitia A, Northfelt DW, Gray RJ, Ingle JN, Lou Z, Weinshilboum R, Goetz MP, Wang L. Regulation of dna methyltransferases via traf6 determines breast cancer response to decitabine *Cancer Research*. 2016 Feb 15; 76:
66. Boughey JC, **Kalari KR**, Suman VJ, McLaughlin SA, Moreno Aspitia A, Moyer AM, Northfelt DW, Gray RJ, Vedell PT, Tang X, Dockter TJ, Jones KN, Felten SJ, Conners AL, Hart SN, Visscher DW, Wieben ED, Ingle JN, Hartman AR, Timms K, Elkin E, Jones J, Wang L, Weinshilboum RW, Goetz MP. Role of germline brca status and tumor homologous recombination (hr) deficiency in response to neoadjuvant weekly paclitaxel followed by anthracycline-based chemotherapy *Cancer Research*. 2016 Feb 15; 76: (Suppl 4).
67. Mangalam AK, Chia N, Chen J, **Kalari KR**, Yao JZ, Novotna M, Paz Soldan M, Luckey D, Marietta EV, Jeraldo PR, Chen X, Weinshenker BG, Rodriguez M, Kantarci OH, Nelson H, Murray JA. Gut microbiota dysbiosis in patients with multiple sclerosis *Journal Of Immunology*. 2016 May 1; 196:

68. Cairns J, Ingle J, Dudenkov T, **Kalari K**, Buzdar A, Kubo M, Robson M, Ellis M, Goss P, Shepherd L, Goetz M, Weinshilbom R, Wang L. Csm1 snps selectively affect anastrozole response in postmenopausal breast cancer patients *Cancer Research*. 2017 Feb; 77: (Suppl 4)PD1-04.
69. Cairns J, Athreya A, **Kalari K**, Gaglio A, Wills Q, Niu N, Weinshilbom R, Iyer R, Wang L. Model-based unsupervised single-cell rna-seq analysis reveals cdc42 as a downstream effector in metformin inhibition of triple-negative breast cancer migration *Clinical Pharmacology & Therapeutics*. 2017 Feb; 101: (S1)S58.
70. Leon-Ferre RA, Polley M, Liu H, Gilbert JA, Cafourek V, Hillman DW, Elkhanany A, Akinhanmi M, Negron V, Boughey , JC, Liu MC, Ingle JN, **Kalari KR**, Couch FJ, Visscher DW, Goetz MP. Prognostic Value of Histopathology, Stromal Tumor Infiltrating Lymphocytes (sTILs) and Adjuvant Chemotherapy (AdjCT) in Early Stage Triple Negative Breast Cancer (TNBC) *American Society of Clinical Oncology*.2017;
71. Duan Liu, Drew R. Neavin, Balmiki Ray, Arjun P. Athreya, Joanna M. Biernacka, William V. Bobo, Daniel K. Hall-Flavin, Michelle K. Skime, Hongjie Zhu, Gregory D. Jenkins, Anthony Batzler, Krishna R. Kalari, Felix Boakye-Agyeman, Wayne R. Matson, Swati S. Bhasin, Taisei Mushiroda, Yusuke Nakamura¹⁰, Michiaki Kubo, Ravishankar K. Iyer, Liewei Wang, Mark A. Frye, Rima Kaddurah-Daouk, Richard M. Weinshilbom. Beta-Defensin 1, an Epithelial Antimicrobial Peptide, and Plasma Kynurenine in Major Depressive Disorder: Metabolomics-informed Genomics *Society of Biological Psychiatry*.2017;
72. Leon-Ferre R, Polley M, Liu H, Gilbert J, Cafourek V, Hillman D, Elkhanany A, Akinhanmi M, Lilyquist J, Thomas A, Negron V, Boughey JC, Liu M, Ingle JN, **Kalari K**, Couch FJ, Visscher DW, Goetz MP. Prognostic Value of Histopathology, Stromal Tumor Infiltrating Lymphocytes and Adjuvant Chemotherapy in Early Stage Triple Negative Breast Cancer *Journal of Clinical Oncology*.5/2017; Abstract no.533.

* Indicates that the primary author was a mentee of this author.