

JHMI Single Cell & Transcriptomics CorePublications

This is a list of publications that has either used data generated through the core or collaborated with core staff members. Names in bold indicates current or former members of the core facility. This may not be a complete list. If you are a core user and has published a paper using data generated from the core and the paper is not listed here, we would appreciate if you can let us know. The Core has also been cited as:

- The Microarray Core
- The Deep Sequencing & Microarray Core
- The Transcriptomics & Deep Sequencing Core

Total: 481 / Core Member Co-Authored: 159

2021 (24/9)

- **Kannan S, Farid M, Lin BL, Miyamoto M, Kwon C.** Transcriptomic entropy benchmarks stem cell-derived cardiomyocyte maturation against endogenous tissue at single cell level. *PLoS Comput Biol.* 2021;17(9):e1009305. Published 2021 Sep 17. doi:10.1371/journal.pcbi.1009305
[10X Single cell]
- **Looney M, Lorenc R, Halushka MK, Karakousis PC.** Key Macrophage Responses to Infection With *Mycobacterium tuberculosis* Are Co-Regulated by microRNAs and DNA Methylation. *Front Immunol.* 2021;12:685237. Published 2021 Jun 1. doi:10.3389/fimmu.2021.685237
[mRNA sequencing]
- **Rattner A, Terrillion CE, Jou C, et al.** Developmental, cellular, and behavioral phenotypes in a mouse model of congenital hypoplasia of the dentate gyrus. *Elife.* 2020;9:e62766. Published 2020 Oct 21. doi:10.7554/eLife.62766
[RNA sequencing]
- **Brodie-Kommit J, Clark BS, Shi Q, et al.** Atoh7-independent specification of retinal ganglion cell identity. *Sci Adv.* 2021;7(11):eabe4983. Published 2021 Mar 12. doi:10.1126/sciadv.abe4983
[Single Cell RNA sequencing]
- **Maynard KR, Collado-Torres L, Weber LM, et al.** Transcriptome-scale spatial gene expression in the human dorsolateral prefrontal cortex [published correction appears in *Nat Neurosci.* 2021 Feb 18;:]. *Nat Neurosci.* 2021;24(3):425-436. doi:10.1038/s41593-020-00787-0
[Single nucleus RNAseq]
- **Kim DW, Taneja K, Hoang T, et al.** Transcriptomic Profiling of Control and Thyroid-Associated Orbitopathy (TAO) Orbital Fat and TAO Orbital Fibroblasts Undergoing Adipogenesis. *Invest Ophthalmol Vis Sci.* 2021;62(9):24. doi:10.1167/iovs.62.9.24
[Single cell sequencing]
- **Blatchley MR, Hall F, Ntekoumes D, et al.** Discretizing Three-Dimensional Oxygen Gradients to Modulate and Investigate Cellular Processes. *Adv Sci (Weinh).* 2021;8(14):e2100190. doi:10.1002/adv.202100190
[RNA sequencing, bioinformatics]
- **Kim DW, Liu K, Wang ZQ, et al.** Gene regulatory networks controlling differentiation, survival, and diversification of hypothalamic Lhx6-expressing GABAergic neurons. *Commun Biol.* 2021;4(1):95. Published 2021 Jan 21. doi:10.1038/s42003-020-01616-7
[Single cell sequencing]
- **Rajaii F, Kim DW, Pan J, et al.** Temperature and species-dependent regulation of browning in retrobulbar fat. *Sci Rep.* 2021;11(1):3094. Published 2021 Feb 4. doi:10.1038/s41598-021-82672-9

- [RNA sequencing]
- *Do DC, Zhang Y, Tu W, Hu X, Xiao X, Chen J, Hao H, Liu Z, Li J, Huang S-K, Wan M, and Gao P.*
Type II alveolar epithelial cell-specific loss of RhoA exacerbates allergic airway inflammation through SCL26A4.
JCI Insight. 2021. <https://doi.org/10.1172/jci.insight.148147>.
[mRNA sequencing and data analysis]
- *Weir K, Kim DW, and Blackshaw S.*
A potential role for somatostatin signaling in regulating retinal neurogenesis.
Sci. Rep. 11, 10962. DOI: 10.1038/s41598-021-905543. PMID: 34040115.
[scRNA-seq library sequencing]
- *Karthikeyan W, Waters IG, Dennison L, Chu D, Donaldson J, Shin DH, Rosen DM, Conzalez-Ericsson PI, Sanchez V, Sanders ME, Pantone MV, Bergman RE, Davidson BA, Reed SC, Zabransky DJ, Cravero K, Kyker-Snowman K, Button B, Wong HY, Hurley PJ, Croessmann S, and Park BH.*
Hierarchical tumor heterogeneity mediated by cell contact between distinct genetic subclones.
J Clin Invest. 131(6):e143557. DOI: 10.1172/JCI143557. PMID: 33529175.
[Affymetrix Clariom S array]
- *Wang Q, Hernández-Ochoa EO, Viswanathan MC, Blum ID, Do DC, Granger JM, Murphy KR, Wei A-C, Aja S, Liu N, Antonescu CM, Florea LD, Talbot Jr CC, Mohr D, Wagner KR, Regot S, Lovering RM, Gao P, Bianchet MA, Wu MN, Cammarato A, Fchneider MF, Bever GS, and Anderson ME.*
CaMKII oxidation is a critical performance/disease trade-off acquired at the dawn of vertebrate evolution.
Nat. Comm. 12, 3175. DOI: 10.1038/s41467-021-23549-3. PMID: 34039988.
[Ingenuity Pathway Analysis]
- *Mitchell LA, McCulloch LH, Pingley S, Berger H, Bosco N, Brosh R, Bulajić M, Huang E, Hogan MS, Martin JA, Mazzoni EO, Davoli T, Maurano MT, and Boeke JD.*
De novo assembly and delivery to mouse cells of a 101kb functional human gene.
Genetics. 218(1),iyab038. DOI: 10.1093/genetics/iyab038. PMID: 33742653.
[PacBio sequencing]
- *Parveen S, Siddharth S, Cheung LS, Kumar A, Shen J, Murphy JR, Sharma D, and Bishai WR.*
Therapeutic targeting with DABIL-4 depletes myeloid suppressor cells in 4T1 triple-negative breast cancer model.
Mol. Onco. 2021. DOI: <https://doi.org/10.1002/1878-0261.12938>.
[Nanostring nCounter murine PanCancer Immune Profiling Panel Analysis]
- *Weir K, Leavey P, Santiago C, and Blackshaw S.*
Multiplexed Analysis of Retinal Gene Expression and Chromatin Accessibility using scRNA-Seq and scATAC-Seq.
J. Vis. Exp. 2021. 169. DOI:10.3791/62239. PMID: 33779599.
[10X Genomics scRNA-Seq and scATAC-Seq sequencing]
- *Yang N, Parker LE, Yu J, Jones JW, Liu T, Papanicolaou KN, Talbot Jr CC, Margulies KB, O'Rourke B, Kane MA, and Foster DB.*
Cardiac retinoic acid levels decline in heart failure.
JCI Insight. 2021. 6(8):137593. DOI: 10.1172/jci.insight.137593. PMID: 33724958.
[Affymetrix Pig array and data analysis]
- *Muchenditsi A, Talbot Jr CC, Gottlieb A, Yang H, Kang B, Boronina T, Cole R, Wang L, Dev S, Hamilton JP, and Lutsenko S.*
Systemic deletion of Atp7b modifies the hepatocytes' response to copper overload in the mouse models of Wilson disease.
Sci Rep. 2021. 11(1):5659. DOI: 10.1038/s41598-021-84894-3. PMID: 33707579.
[data analysis]

- [Ali M, Khan SY, Jang Y, Na CH, Talbot Jr CC, Gottsch JD, Handa JT, and Riazuddin SA.](#)
Cigarette Smoke Triggers Loss of Corneal Endothelial Cells and Disruption of Descemet's Membrane Proteins in Mice.
Invest Ophthalmol Vis Sci. 62(3):3. Doi: 10.1167/iovs.62.3.3. PMID: 33651877.
[Mass Spec Data Analysis]
- [Credle JJ, Gunn J, Sangkhapreecha P, Monaco DR, Zheng XA, Tsai H-J, Wilbon A, Morgenlander WR, Dong Y, Jayaraman S, Tosi L, Parekkadan B, Baer AN, Roederer M, Bloch EM, Tobian AAR, Zyskind I, Silverberg JI, Rosenberg AZ, Cox AL, Lloyd T, Mammen AL and Larman HB.](#)
Neutralizing IFNL3 Autoantibodies in Severe COVID-19 Identified Using Molecular Indexing of Proteins by Self-Assembly.
BioRxiv. Preprint doi:https://doi.org/10.1101/2021.03.02.432977.
[NextSeq 500 sequencing]
- [Miyamoto M, Kannan S, Uosaki H, Kakani T, Murphy S, Andersen P, and Kwon C.](#)
Cardiac progenitors auto-regulate second heart field cell fate via Wnt secretion.
BioRxiv. Preprint Doi: https://doi.org/10.1101/2021.01.31.428968.
[10X Genomics scRNAseq and MultiSeq library preparation and sequencing]
- [Umapathi P, Banerjee PS, Zachara NE, Abrol N, Wang Q, Mesubi OO, Luczak ED, Wu Y, Granger JM, Wei A-C, Gaido OER, Florea L, Talbot Jr CC, Hart GW, and Anderson ME.](#)
Excessive O-GlcNAcylation Causes Heart Failure and Sudden Death.
Circulation. Originally published 17 Feb 2021. DOI: 10.1161/CIRCULATIONAHA.120.051911.
[RNAseq Data Analysis]
- [Credle JJ, Robinson ML, Gunn J, Monaco D, Sie B, Tchir A, Hardick J, Zheng X, Shaw-Saliba K, Rothman RE, Eshleman SH, Pekosz A, Hansen K, Mostafa H, Steinegger M, and Larman HB.](#)
Highly multiplexed oligonucleotide probe-ligation testing enables efficient extraction-free SARS-CoV-2 detection and viral genotyping.
Modern Pathology. Published online Feb 03, 2021.
[NextSeq 500 sequencing]
- [Parida S, Wu S, Siddharth S, Wang G, Muniraj N, Nagalingam A, Hum C, Mistriotis P, Hao H, Talbot CC, Konstanopoulos K, Gabrielson KL, Sears CL, and Sharma D.](#)
A pro-carcinogenic colon microbe promotes breast tumorigenesis and metastatic progression and concomitantly activates Notch and β catenin axes.
Cancer Discov. 2021. 11(5):1138-1157. DOI: 10.1158/2159-8290.CD-20-0537.
[RNAseq and data analysis]

2020 (37/9)

- [Wier E, Asada M, Wang G, Alphonse MP, Li A, Hintelmann C, Youn C, Pielstick B, Ortines R, Miller LS, Archer NK, and Garza LA.](#)
Neutrophil extracellular traps impair regeneration.
BioRxiv. doi:https://doi.org/10.1101/2020.07.06.189910.
[Affymetrix mouse Clariom S array and mouse Exon 1.0ST array]
- [Chrysostomou E, Zhou L, Darcy YL, Graves KA, Doetzlhofer A, and Cox BC.](#)
The Notch Ligand Jagged1 is Required for the Formation, Maintenance, and Survival of Hensen's Cells in the Mouse Cochlea.
J Neurosci. 2020 Dec 2; 40(49): 9401-9413. DOI: 10.1523/JNEUROSCI.1192-20.2020. PMID: 33127852.
[Affymetrix human Clariom D array and data analysis]
- [Mizushima T, Jiang G, Kawahara T, Li P, Han B, Inoue S, Ide H, Kato I,](#)

- Jalalizadeh M, Miyagi E, Fukuda M, Reis LO, and Miyamoto H.*
Androgen Receptor Signaling Reduces the Efficacy of Bacillus Calmette-Guérin Therapy for Bladder Cancer via Modulating Rab27b-induced Exocytosis.
Mol Cancer Ther. 2020 Sep; 19(9): 1930-1942. DOI: 10.1158/1535-7163.MCT-20-0050. PMID: 32737155.
 [Affymetrix Human GeneChip Gene 2.0ST array]
- *Yin J, Sunuwar L, Kasendra M, Yu H, Tse C-M, Talbot Jr CC, Boronina TN, Cole RN, Karalis K, and Donowitz M.*
Fluid Shear Stress Enhances Differentiation of Jejunal Human Enteroids in Intestine-Chip.
Am J Physiol Gastrointest Liver Physiol. 2020 Oct. 14. DOI: 10.1152/ajpgi.00282.2020. PMID: 33074011.
 [Data analysis]
 - *Rodriguez S, Little HC, Daneshpajouhnejad P, Fenaroli P, Tan SY, Sarve DC, Dlanoy M, Talbot Jr CC, Jandu S, Berkowitz DE, Pluznick JL, Rosenberg AZ, and Wong GW.*
Aging and chronic high-fat feeding negatively affects kidney size, function, and gene expression in CTRP1-deficient mice.
Am J Physiol Regul. Comp. Physiol. 2020 Oct. 21. DOI: 10.1152/ajpregu.00139.2020. PMID: 33085906.
 [RNAseq data analysis]
 - *Kumar S, Dhara VG, Orzolek LD, Hao H, More AJ, Lau EC, and Betenbaugh MJ.*
Elucidating the impact of cottonseed hydrolysates on CHO cell culture performance through transcriptomic analysis.
Applied Microbio and Biotech. 2020. Published 17 November 2020. DOI: 10.1007/s00253-020-10972-7. PMID: 33201275.
 [RNAseq]
 - *Wier E, Asada M, Wang G, Alphonse MP, Li A, Hintelmann C, Youn C, Pielstick B, Ortines R, Miller LS, Archer NK, and Garza LA.*
Neutrophil extracellular traps impair regeneration.
BioRxiv. DOI: <https://doi.org/10.1101/2020.07.06.189910>.
 [Affymetrix mouse Clariom S array and mouse 1.0ST Gene array and data analysis]
 - *Weaver KR, Melkus GD, Fletcher J, and Henderson WA.*
Relevance of Sex and Subtype in Patients With IBS: An Exploratory Study of Gene Expression.
Biol. Res. for Nursing. DOI: <https://doi.org/10.1177/1099800419889189>.
 [data analysis]
 - *Wang Y, Negri S, Li Z, Xu J, Hsu C-Y, Peault B, Broderick K, and James AW.*
Anti-DKK1 Enhances the Early Osteogenic Differentiation of Human Adipose-Derived Stem/Stromal Cells.
Stem Cells and Develop. 29(5). Published Online: 30 Jul, 2020. DOI: <https://doi.org/10.1089/scd.2020.0070>
 - *Hardivillé S, Banerjee PS, Alpergin ESS, Smith DM, Han G, Ma J, Talbot Jr CC, Hu P, Wolfgang MJ, and Hart GW.*
TATA-Box Binding Protein O-GlcNAcylation at T114 Regulates Formation of the B-TFIID Complex and Is Critical for Metabolic Gene Regulation.
Mol. Cell. 77(5), 1143-1152.e7. DOI: <https://doi.org/10.1016/j.molcel.2019.11.022>
 [stranded totalRNA sequencing and data analysis]
 - *Jeffe AE, Hoepfner DJ, Saito T, Blanpain L, Ukaigwe J, Burke EE, Collao-Torres L, Maynard KR, Tran MN, Martinowich K, Deep-Soboslay A, Shin JH, Kleinman JE, Weinberger DR, Matsumoto M, and Hyde TM.*
Profiling gene expression in the human dentate gyrus granule cell layer reveals insights into schizophrenia and its genetic risk.
Nat. Neurosci. 23, 510-519. DOI: <https://doi.org/10.1038/s41593-020-0604-z>.
 [10X Genomics single nuclei RNAseq library preparation and sequencing]
 - *Maynard KR, Collado-Torres L, Weber LM, Uyttingco C, Barry BK, Williams SR,*

Catallini JL, Tran MN, Besich Z, Tippani M, Chew J, Yin Y, Kleinman JE, Hyde TM, Rao N, Hicks SC, Martinowich K, and Jaffe AE.

Transcriptome-scale spatial gene expression in the human dorsolateral prefrontal cortex.

BioRxiv. DOI: <https://doi.org/10.1101/2020.02.28.969931>.

[10X Genomics single nuclei RNAseq library preparation and sequencing]

- Sosina OA, Tran MN, Maynard KR, Tao R, Taub MA, Martinowich K, Semick SA, Quach BC, Weinberger DR, Hyde TM, Hancock DB, Kleinman JE, Leek JT, and Jaffe AE.

Strategies for cellular deconvolution in human brain RNA sequencing data.

BioRxiv. Doi: <https://doi.org/10.1101/2020.01.19.910976>.

[10X Genomics single nuclei RNAseq library preparation and sequencing]

- Mzushima T, Jiang G, Kawahara T, Li P, Han B, Inoue S, Ide H, Kato I, Jalalizadeh M, Miyagi E, Fukuda M, Reis LO, and Miyamoto H.

Androgen Receptor Signaling Reduces the Efficacy of Bacillus Calmette-Guérin Therapy for Bladder Cancer via Modulating Rab27b-Induced Exocytosis.

Mol. Cancer Ther. 2020. 19:1930-42. DOI: 10.1158/1535-7163.MCT-20-0050.

[Affymetrix Human Gene 2.0ST array]

- Cordero AD, Callihan EC, Said R, Alowais Y, Paffhausen ES, and Bracht JR.

Epigenetic Regulation of Neuregulin-1 Tunes White Adipose Stem Cell Differentiation.

Cells. 9(5), 1148. DOI: <https://doi.org/10.3390/cells9051148>.

[Affymetrix Human PrimeView GeneChip]

- Wu P-H, Gilkes DM, Phillip JM, Narkar A, Cheng TW-T, Marchand J, Lee M-H, Li R, and Wirtz D.

Single-cell morphology encodes metastatic potential.

Science Advances. 6(4), eaaw6938. DOI: 10.1126/sciadv.aaw6938.

[Affymetrix Human PrimeView GeneChip]

- Kannan S, Farid M, Lin BL, Miyamoto M, and Kwon C.

Transcriptomic entropy benchmarks stem cell-derived cardiomyocyte maturation against endogenous tissue at single cell level.

BioRxiv. DOI: <https://doi.org/10.1101/2020.04.02.022632>.

[Nextseq 500 sequencing]

- Makena MR, Ko M, Mekile AX, Dang DK, Warrington J, Buckhaults P, Talbot Jr CC, and Rao R.

Store Independent Ca²⁺ Entry Regulates the DNA Damage Response in Breast Cancer Cells.

BioRxiv. DOI: <https://doi.org/10.1101/2020.04.06.027946>.

[Affymetrix U133 Plus 2.0 array]

- Wang X-W, Yang S-G, Zhang C, Hu M-W, Qian J, Ma J-J, Zhang Y, Yang B-B, Weng Y-L, Ming G-L, Kosanam AR, Sajjilafu, and Zhou F-Q.

Knocking Out Non-muscle Myosin II in Retinal Ganglion Cells Promotes Long-Distance Optic Nerve Regeneration.

Cell Reports. 31(3). DOI: <https://doi.org/10.1016/j.celrep.2020.107537>.

[RNAseq]

- Weir K, Kim DW, and Blackshaw S.

Regulation of retinal neurogenesis by somatostatin signaling.

BioRxiv. DOI: <https://doi.org/10.1101/2020.09.36.314104>.

[scRNAseq]

- Xu J, Wang Y, Hus C-Y, Negri S, Tower RJ, Gao Y, Tian Y, Sono T, Meyers CA, Hardy WR, Chang L, Hu S, Kahn N, Broderick K, Péault B, and James AW.

Lysosomal protein surface expression discriminates fat- from bone-forming human mesenchymal precursor cells.

eLife 2020; 9:e58990. DOI: <https://doi.org/10.7554/elife.58990>

[RNAseq]

- Looney MM, Lu Y, Karakousis PC, and Halushka MK.

Mycobacterium tuberculosis infection drives mitochondria-biased dysregulation of host tRNA-derived fragments.

The J. of Infectious Diseases, jiaa596, <https://doi.org/10.1093/infdis/jiaa596>.

Published: 22 September 2020.

[smallRNA sequencing]

- [Tran MN, Maynard KR, Spangler A, Torres LC, Sadashivaiah V, Tippani M, Barry BK, Hancock DB, Hicks SC, Kleinman JE, Hyde TM, Martinovich K, and Jaffe AE.](#)

Single-nucleus transcriptome analysis reveals cell type-specific molecular signatures across reward circuitry in the human brain.

bioRxiv. DOI: <https://doi.org/10.101/2020.10.07.329839>.

[10X single nuclei RNAseq]

- [Lamont EI, Hendrickson EL, McLean JS, He X, and Bor B.](#)
Complete Genome Sequence of Strain BB001, a Novel Epibiont Bacterium from the Candidate Phylum *Saccharibacteria*(TM7).

Microbiol Resour Announc. 9:e00810-20. <https://doi.org/10.1128/MRA.00810-20>.

[PacBio RS II sequencing, HGAP4 assembly, methylation detection]

- [Banfield E, Fulton W, Burd I, Kovler ML, Sodhi CP, and Hackam DJ.](#)
The Role of *In Utero* Endotoxin Exposure in The Development of Inflammatory Bowel Disease in Mice.

Am. J. Reprod. Immunol. First published: 14 July 2020.

<https://doi.org/10.1111/aji.13302>.

[16s rRNA v3 sequencing]

- [Hsu GC-Y, Marini S, Negri S, Wang Y, Xu J, Pagani CA, Hwang C, Stepien DM, Meyers CA, Miller S, McCarthy E, Lyons KM, Levi B, and James AW.](#)
Endogenous CCN Family Member WISP-1 Inhibits Trauma-Induced Heterotopic Ossification.
JCI Insight. 2020 Jun2; 135432. DOI: 10.1172/jci.insight.135432. Online ahead of print. PMID: 32484792.

[Affymetrix MTA-1 array and bioinformatics analysis]

- [Credle JJ, Robinson ML, Gunn J, Monaco D, Sie B, Tchir A, Hardick J, Zheng X, Shaw-Saliba K, Rothman RE, Eshleman SH, Pekosz A, Hansen K, Mostafa H, Steinegger M, and Larman HB.](#)

Highly multiplexed oligonucleotide probe-ligation testing enables efficient extraction-free SARS-CoV-2 detection and viral genotyping.

BioRxiv. June 3, 2020. DOI: <https://doi.org/10.1101/2020.06.03.130591>.

[NextSeq 500 sequencing]

- [Suryo Rahmanto Y, Shen W, Shi X, Chen X, Yu Y, Yu Z-C, Miyamoto T, Lee M-H, Singh V, Asaa R, Shimberg G, Vitolo MI, Martin SS, Wirtz D, Drapkin R, Xuan J, Wang T-L, and Shih L-M.](#)

Inactivation of *Arid1a* in the endometrium is associated with endometrioid tumorigenesis through transcriptional reprogramming.

Nat Commun 11, 2717 (2020). <https://doi.org/10.1038/s41467-020-16416-0>.

[NextSeq 500 sequencing]

- [Romaán-Meléndez GD, Venkataraman T, Monaco DR, and Larman HB.](#)

Protease Activity Profiling Via Programmable Phage Display.

BioRxiv. May 13, 2020. DOI: <https://doi.org/10.1101/2020.05.11.089607>.

[NextSeq 500 sequencing]

- [Montagne JM, Zheng XA, Fianl-Fernandez I, Milisenda JC, Christopher-Stine L, Lloyd TE, Mammen AL, and Larman HB.](#)

Ultra-Efficient Short Read Sequencing of T Cell Receptor Repertoires.

BioRxiv. Feb 05, 2020. DOI: <https://doi.org/10.1101/494062>.

[NextSeq 500 sequencing]

- [Putchu N, Fawzy A, Matsui EC, Liu M, Bowler RP, Woodruff P, O'Neal WK, Comellas AP, Han MK, Dransfield M, Wells JM, Lugogo N, Gao L, Talbot Jr CC, Hoffman E, Cooper CB, Paulin LM, Kanner RE, Criner G, Ortega VE, Barr RG, Krishnan JA, Martinez FJ, Dummond MB, Wise RA, Diette GB, Hersh CP, and Hansel NN.](#)

Clinical Phenotypes of Atopy and Asthma in COPD: A Meta-Analysis of SPIROMICS and COPDGene.

Chest. 2020 May 22; S0012-3692(20)31508-7. DOI: 10.1016/j.chest.2020.04.069. PMID: 32450244.

[Data Analysis]

- Xu J, Li D, Hsu C-Y, Tian Y, Zhang L, Wang Y, Tower RJ, Chang L, Meyers CA, Gao Y, Broderick K, Morris C, Hooper JE, Nimmagadda S, Péault B, and James AW.

Comparison of skeletal and soft tissue pericytes identifies CXCR4⁺ bone forming mural cells in human tissues.

Bone Res. 2020. 8,22. <https://doi.org/10.1038/s41413-020-0097-0>.

[Affymetrix Human Clariom D array, 10X Genomics single-cell RNAseq, data analysis]

- Liu R, Yeh Y-HJ, Varabyou A, Collora JA, Sherrill-Mix S, Talbot Jr CC, Mehta S, Albrecht K, Hao H, Zhang H, Pollack RA, Beg SA, Calvi RM, Hu J, Durand CM, Ambinder RF, Hoh R, Deeks SG, Chiarella J, Spudich S, Douek DC, Bushman FE, Perteau M, and Ho Y-C.

Single-cell transcriptional landscapes reveal HIV-1-driven aberrant host gene transcription as a potential therapeutic target.

Sci Transl Med. 2020 May 13; 12(543). pii: eaaz0802. DOI:

10.1126/scitranslmed.aaz0802. PMID: 32404504.

[Sequencing and Bioinformatics data analysis]

- Sun C, Choi IY, Rovira Gonzalez YI, Andersen P, Talbot CC Jr, Iyer SR, Lovering RM, Wagner KR, and Lee G.

Duchenne muscular dystrophy hiPSC-derived myoblast drug screen identifies compounds that ameliorate disease in mdx mice.

JCI Insight. 2020 Apr 28. pii:134287. DOI: 10.1172/jci.insight.134287. PMID:

32343677. [Epub ahead of print]

[Affymetrix Human Clariom S array and data analysis]

- Lee SA, Noel S, Kurzhagen JT, Sadasivam M, Pierorazio PM, Arend LJ, Hamad AR, and Rabb H.

CD4⁺ T Cell-Derived NGAL Modifies the Outcome of Ischemic Acute Kidney Injury.

J. Immunol. 2020 Feb 1; 204(3): 586-595. DOI: 10.4049/jimmunol.1900677.

Epub 2019 Dec. 30. PMID:31889023.

[NextSeq 500 sequencing and data analysis]

- Xu Z, Green B, Benoit N, Schatz M, Wheelan S, and Cormack B.

De novo genome assembly of *Candida glabrata* reveals cell wall protein complement and structure of dispersed tandem repeat arrays.

Mol. Microbiol. 2020 Feb. 18. doi:10.1111/mmi.14488.[Epub ahead of print].

PMID: 32068314.

[PacBio 20kb library preparation and RS II sequencing]

- Wu P-H, Gilkes DM, Phillip JM, Narkar A, Cheng TW, Marchand J, Lee M-H, Li R, and Wirtz D.

Single-cell morphology encodes metastatic potential.

Sci. Adv. 6(4), eaaw6938. DOI:10.1126/sciadv.aaw6938. 22 Jan. 2020.

[Affymetrix Human Prime View Array]

2019 (30/9)

- DeLong K, Bensouda S, Zulfiqar F, Zierden HC, Hoang TM, Abraham AG, Coleman JS, Cone RA, Gravitt PE, Hendrix CW, Fuchs EJ, Gaydos CA, Weld ED, and Ensign LM.

Conceptual Design of a Universal Donor Screening Approach for Vaginal Microbiota Transplant.

Front. Cell. Infect. Microbiol. 28 August 2019. DOI:

<https://doi.org/10.3389/fcimb.2019.00306>

[16s rRNA library preparation and sequencing]

- Singh A, Spitzer MH, Joy JP, Kaileh M, Qiu X, Nolan GP, and Sen R.

Mitogen-independent cell cycle progression in B lymphocytes.

BioRxiv. DOI: <https://doi.org/10.1101/796904>.

[RNAseq]

- [Peng Y-R, James RE, Yan W, Kay JN, Kolodkin AL, and Sanes JR.](#)
Binary Fate Choice between Closely Related Interneuronal Types Is Determined by a Fezf1-Dependent Postmitotic Transcriptional Switch
Neuron. 2019 Nov 25. pii:S0896-6273(19)30965-1. DOI: 10.1016/j.neuron.2019.11.002. PMID: 31812516. [Epub ahead of print]
[Nextseq 500 sequencing]
- [Kannan S, Miyamoto M, Lin BL, Zhu R, Murphy S, Kass DA, Andersen P, and Kwon C.](#)
Large Particle Fluorescence-Activated Cell Sorting Enables high-Quality Single-cell RNA Sequencing and Functional Analysis of Adult Cardiomyocytes.
Circ. Res. 2019. 125(5), 567-569. DOI: 10.1161/CIRCRESAHA.119.315493. PMID: 31415233.
[NextSeq 500 Sequencing]
- [Liu Y, Afzal J, Vakrou S, Greenland GV, Talbot CC Jr, Hebl VB, Guan Y, Karmali R, Tardiff JC, Leinwand LA, Olgin JE, Das S, Fukunaga R, and Abraham MR.](#)
Differences in microRNA-29 and Pro-fibrotic Gene Expression in Mouse and Human Hypertrophic Cardiomyopathy.
Front Cardiovasc med. 2019 Dec 17; 6:170. DOI: 10.3389/fcvm.2019.00170. eCollection 2019. PMID: 31921893.
[data analysis]
- [Rodriguez S, Little HC, Daneshpajouhnejad P, Shepard BD, Tan SY, Wolfe A, Cheema MU, Jandu S, Woodward OM, Talbot CC Jr, Berkowitz DE, Rosenberg ZA, Pluznick JL, and Wong GW.](#)
Late-onset renal hypertrophy and dysfunction in mice lacking CTRP1.
FASEB J. 2019 Dec. 26. DOI: 10.1096/fj.201900558RR. PMID: 31908037.[Epub ahead of print]
[data analysis]
- [Hardivillé S, Banerjee PS, Selen Alpergin ES, Smith DM, Han G, Ma J, Talbot CC Jr, Hu P, Wolfgang MJ, Hart GW.](#)
TATA-Box Binding Protein O-GlcNAcylation at T114 Regulates Formation of the B-TFIID Complex and Is Critical for Metabolic Gene Regulation.
Mol Cell. 2019 Dec. 13. pii: S1097-2765(19)30891-3. DOI: 10.1016/j.molcel.2019.11.022. [Epub ahead of print]. PMID: 31866147.
[RNAseq and data analysis]
- [Peng X, Zhao M, Gao L, Sen R, and MacGlashan D Jr.](#)
Identifying regulatory pathways of spleen tyrosine kinase expression in human basophils.
J. Allergy Clin. Immunol. 2019 Oct. 17. pii:S0091-6749(19)31324-7. DOI: 10.1016/j.jaci.2019.10.005.[Epub ahead of print]. PMID: 31629804.
[NextSeq 500 sequencing]
- [Wang Y, An H, Liu T, Qin C, Sesaki H, Guo S, Radovick S, Hussain M, Maheshwari A, Wondisford FE, O'Rourke B, and He L.](#)
Metformin Improves Mitochondrial Respiratory Activity through Activation of AMPK.
Cell Rep. 29(6), 1151-1523.e5. DOI: 10.1016/j.celrep.2019.09.070. PMID: 31693892.
[Affymetrix Mouse Clariom S array and data analysis]
- [Murugkar PP, Collins AJ, and Dewhirst FE.](#)
Complete Genome Sequence of Strain PM004, a Novel Cultured Member of the Human Oral Microbiome from the Candidate Phylum Saccharibacteria(TM7).
Microbiol Resour Announc. 8:e01159-19. DOI: 10.1128/MRA.01159-19. PMID:

31624157.

[PacBio RSII sequencing, Genome Assembly, and Base Modification detection]

- [Collins AJ, Murugkar PP, and Dewhirst FE.](#)
Complete Genome Sequence of Strain AC001, a Novel Cultured Member of the Human Oral Microbiome from the candidate Phylum Saccharibacteria (TM7).
Microbiol Resour Announc. 8:e01158-19. DOI: 10.1128/MRA.01158-19. PMID: 31624156.
[PacBio RSII sequencing, Genome Assembly, and Base Modification detection]
- [Xu J, Wang Y, Hsu C-Y, Gao Y, Meyers CA, Chang L, Zhang L, Broderick K, Ding C, Peault B, Witwer K, and James AW.](#)
Human perivascular stem cell-derived extracellular vesicles mediate bone repair.
Elife. 2019 Sep 4;8. pii: e48191. DOI: 10.7554/eLife.48191.
[RNAseq, Affymetrix Human Clariom D GeneChips, and data analysis]
- [Pike AM, Strong MA, Ouyang JPT, and Greider CW.](#)
TIN2 functions with TPP1/POT1 to stimulate telomerase processivity.
Mol Cell Bio. 2019. Aug 5. pii: MCB.00593-18. DOI: 10.1128/MCB.00593-18. PMID:31383750. [Epub ahead of print].
[PacBio RS II sequencing]
- [Asrani K, Murali S, Lam B, Na CH, Phatak P, Sood A, Kaur H, Khan Z, Noë M, Anchoori RK, Talbot CC Jr, Smith B, Skaro M, and Lotan TL.](#)
mTORC1 feedback to AKT modulates lysosomal biogenesis through MiT/TFE regulation.
J Clin Invest 2019 Sep 17. pii:128287. DOI: 10.1172/JCI128287.[Epub ahead of print]. PMID: 31527310.
[Affymetrix Mouse MTA_1.0 Microarray and data analysis]
- [Gable DL, Gaysinskaya V, Atik CC, Talbot CC Jr, Kang B, Stanley SE, Pugh EW, Amat-Codina N, Schenk KM, Arcasoy MO, Brayton C, Florea L, and Armanios M.](#)
ZCCHC8, the nuclear exosome targeting component, is mutated in familial pulmonary fibrosis and is required for telomerase RNA maturation.
Genes Dev. 2019 Sep 05. Doi:10.1101/gad.326785.119.[Epub ahead of print]. PMID: 31488579.
[RNAseq data analysis]
- [Hou X, Chen G, Bracamonte-Baran W, Choi HS, Diny NL, Sung J, Hughes D, Won T, Wood MK, Talor MV, Hackam DJ, Klingel K, Davogustto G, Taegtmeier H, Coppens I, Barin JG, and Čiháková D.](#)
The Cardiac Microenvironment Instructs Divergent Monocyte Fates and Functions in Myocarditis.
Cell Rep. 2019. 28(1):172-187.e7. DOI: 10.1016/j.celrep.2019.06.007. PMID: 31269438.
[Affymetrix mouse Clariom S array and data analysis]
- [Zieman AG, Poll BG, Ma J, and Coulombe PA.](#)
Altered keratinocyte differentiation is an early driver of keratin mutation-based palmoplantar keratoderma.
Hum Mol Genet. 28(13),2255-2270. DOI:10.1093/hmg/dzz050. PMID: 31220272.
[Affymetrix Mouse Transcriptome 1.0 GeneChip and data analysis]
- [Heng JS, Rattner A, Stein-O'Brien GL, Winer BL, Jones BW, Vernon HJ, Goff LA, and Nathans J.](#)
Hypoxia tolerance in the Norrin-deficient retina and the chronically hypoxic brain studied at single-cell resolution.
Proc. Natl. Acad. Sci. USA. 116(18): 9103-9114. DOI: 10.1073/pna.1821122116.

- PMID: 30988181.
[Nugen Ovation Single Cell RNAseq]
- [O'Grady T, Feswick A, Hoffman BA, Wang Y, Medina EM, Kara M, van Dyk LF, Flemington EK, and Tibbetts SA.](#)
Genome-wide Transcript Structure Resolution Reveals Abundant Alternate Isoform Usage from Murine Gammaherpesvirus 68.
Cell Reports. 27(13), 3988-4002.e5. DOI: 10.1016/j.celrep.2019.05.086. PMID: 31242428.
[PacBio Iso-seq]
 - [Kim D, Chen R, Sheu M, Kim N, Kim S, Islam N, Wier EM, Wang G, Li A, Park A, Son W, Evans B, Yu V, Prizmic VP, Oh E, Wang Z, Yu J, Huang W, Archer NK, Hu Z, Clemetson N, Nelson AM, Chien A, Okoye GA, Miller LS, Ghiaur G, Kang S, Jones JW, Kane MA and Garza LA.](#)
Noncoding dsRNA induces retinoic acid synthesis to stimulate hair follicle regenerateion via TLR3.
Nat. Commun. 10(1):2811. DOI: 10.1038/s41467-019-10811-y. PMID: 31243280.
[Affymetrix Human Exon 1.0ST array, mouse Clariom S array, and microarray data analysis]
 - [Cheema MU and Pluznick JL.](#)
Gut Microbiota Plays a Central Role to Modulate the Plasma and Fecal Metabolomes in Response to Angiotensin II.
Hypertension. 2019 Jun 3: HYPERTENSIONAHA11913155. DOI: 10.1161/HYPERTENSIONAHA.119.13155. [Epub ahead of print]. PMID: 31154901.
[16s rRNA gene sequencing]
 - [Johnston CD, Cotton SL, Rittling SR, Starr JR, Borisy GG, Dewhirst FE, and Lemon KP.](#)
Systematic evasion of the restriction-modification barrier in bacteria.
Proc. Natl. Acad. Sci. U. S. A. 2019 May 16. piiL201820256. DOI: 10.1073/pnas.1820256116. [Epub ahead of print]. PMID: 31097593.
[PacBio RS II sequencing and smrtanalysis]
 - [Tsai H-J, Nelliath AR, Choudhury MI, Kucharavy A, Bradford WD, Cook ME, Kim J, Mair DB, Sun SX, Schatz MC, and Li R.](#)
Hypo-osmotic-like stress underlies general cellular defects of aneuploidy.
Nature. 2019 May 8. DOI:10.1038/s41586-019-1187-2. [Epub ahead of print]. PMID: 31068692.
[DNAseq and RNAseq]
 - [Zibetti C, Liu S, Wan J, Qian J, and Blackshaw S.](#)
Epigenomic profiling of retinal progenitors reveals LHX2 is required for developmental regulation of open chromatin.
Communications Biology. 2, 142(2019). Published 25 April 2019. DOI: <https://doi.org/10.1038/s42003-019-0375-9>.
[RNAseq]
 - [Mecoli CA, Talbot Jr CC, Fava A, Cheadle C, Boin F, Wigley FM, and Hummers LK.](#)
Clinical and Molecular Phenotyping in Scleromyxedema Pre- and Post-Treatment with Intravenous Immunoglobulin.
Arthritis Care Res (Hoboken). 2019 Apr. 12. DOI: 10.1002/acr.23908. [Epub ahead of print]. PMID: 31008568.
[Data analysis]

- [Mukherjee-Clavin B, Mi R, Kern B, Choi IY, Lim H, Oh Y, Lannon B, Kim KJ, Bell S, Hur JK, Hwang W, Che YH, Habib O, Baloh RH, Eggan K, Brandacher G, Hoke A, Studer L, Kim YJ, and Lee G.](#)
Comparison of three congruent patient-specific cell types for the modeling of a human genetic Schwann-cell disorder.
Nat. Biomed. Engineer. 08 April 2019. DOI: 10.1038/s41551-019-0381-8. [Epub ahead of print]. PMID: 30962586.
 [Affymetix Human Primeview array]
- [Miller SJ, Philips T, Kim N, Dastgheyb R, Chen Z, Hsieh Y-C, Daigle JG, Datta M, Chew J, Vidensky S, Pham JT, Hughes EG, Robinson MB, Sattler R, Tomer R, Suk JS, Bergles DE, Haughey N, Pletniko M, Hanes J, and Rothstein JD.](#)
Molecularly defined cortical astroglia subpopulation modulates neurons via secretion of Norrin.
Nat. Neurosci. 2019 Apr 1. DOI: 10.1038/s41593-019-0366-7.[Epub ahead of print]. PMID: 30936556.
 [Affymetrix mouse Exon 1.0ST array and data analysis]
- [Shah AP, Johnson MD, Fu X, Boersma GJ, Shah M, Wolfgang MJ, Tamashiro KL, and Baraban JM.](#)
Deletion of translin(*Tsn*) induces robust adiposity and hepatic steatosis without impairing glucose tolerance.
Int.J. Obes. 2019 Jan. 15. DOI:10.1038/s41366-018-0315--7. [Epub ahead of print]. PMID: 30647452.
 [Affymetrix miRNA 4.0 array and data analysis]
- [Leung DYM, Calatroni A, Zaramela LS, LeBeau PK, Dyjack N, Brar K, David G, Johnson K, Leung S, Ramirez-Gama M, Liang B, Rios C, Montgomery MT, Richers BN, Hall CF, Norquest KA, Jung J, Bronova I, Kreimer S, **Talbot CC Jr**, Crumrine D, Cole RN, Elias P, Zengler K, Seibold MA, Berdyshev E, and Goleva E.](#)
The nonlesional skin surface distinguishes atopic dermatitis with food allergy as a unique endotype.
Sci. Transl. Med. 2019. 11(480). pii:eaav2685. DOI: 10.1126/scitranslmed.aav2685. PMID: 30787169.
 [Data Analysis]
- [Zhang X, Owens J, Olsen HS, So E, Burch E, McCroskey MC, Li X, Weber GL, Bennett D, Rybin D, Zhou H, **Hao H**, Mériegeon EY, Block DS, LaRosa G, and Strome SE.](#)
A recombinant human IgG1 Fc multimer designed to mimic the active fraction of IVIG in autoimmunity.
JCI Insight. 2019. 4(2):e121905. DOI: 10.1172/jci.insight.121905.
 [Nanostring mouse Immunology Panel]
- [Shah AP, Johnson MD, Fu X, Boersma GJ, Shah M, Wolfgang MJ, Tamashiro KL, and Baraban JM.](#)
Deletion of translin (*Tsn*) induces robust adiposity and hepatic steatosis without impairing glucose tolerance.
Int. J. Obes (Lond). 2019. DOI: 10.1038/s41366-018-0315-7. [Epub ahead of print]. PMID: 30647452.
 [Affymetrix miRNA 4.0 and data analysis]
- [Zhou R, Wang G, Kim D, Islam N, Chen R, Wang Z, Li A, McCarthy EF, Li L, Hu Z, and Garza LA.](#)
dsRNA sensing induces loss of cell identity.
J. Invest. Dermatol. 2019. 139(1),91-99. DOI: do.1016/j.jid.2018.07.021. PMID:

30120933.

[Affymetrix Human Exon 1.0ST array and data analysis]

2018 (37/18)

- [Zhao M, Joy J, De S, Wood WH 3rd, Becker KG, Ji H, and Sen R.](#)
Transcriptional outcomes and kinetic patterning of gene expression in response to NF-κB activation.
PLoS Biol. 16(9): e2006347. DOI: 10.1371/journal.pbio.2006347. PMID: 30199532.
[RNAseq]
- [Miller SJ, Glatzer JC, Hsieh YC, and Rothstein JD.](#)
Cortical astroglia undergo transcriptomic dysregulation in the G93A SOD1 ALS mouse model.
J. Neurogent. 42(4):322-335. DOI: 10.1080/01677063.2018.1513508. PMID: 30398075.
[Affymetrix Mouse Exon 1.0ST array and Data Analysis Assistance]
- [Peng X, Emiliani F, Smallwood PM, Rattner A, Lei H, Sabbagh MF, and Nathans J.](#)
Affinity capture of polyribosomes followed by RNAseq (ACAPseq), a discovery platform for protein-protein interactions.
eLife. 7:e40892. DOI: 10.7554/eLife.40982. PMID: 30345971.
[Nugen Single Cell RNAseq]
- [Bodogai M, O'Connell J, Kim K, Kim Y, Moritoh K, Chen C, Gusev F, Vaughan K, Shulzhenko N, Mattison JA, Lee-Chang C, Chen W, Carlson O, Becker KG, Gurung M, Morgun A, White J, Meade T, Perdue K, Mack M, Ferrucci L, Trinchieri G, de Cabo R, Eogaev E, Egan J, Wu J, and Biragyn A.](#)
Commensal bacteria contribute to insulin resistance in aging by activating innate B1a cells.
Sci. Transl. Med. 2018. 10(467). pii:eaat4271. DOI: 10.1126/scitranslmed.aat4271. PMID: 30429354.
[16s rRNA sequencing]
- [Merino VF, Cho S, Nguyen N, Sadik H, Narayan A, Talbot C Jr, Cope L, Zhou XC, Zhang Z, Györfy B, and Sukumar S.](#)
Induction of cell cycle arrest and inflammatory genes by combined treatment with epigenetic differentiating, and chemotherapeutic agents in triple-negative breast cancer.
Breast Cancer Res. 2018. 20(1):145. Doi: 10.1186/s13058-018-1068-x. PMID: 30486871.
[data analysis]
- [Mangus LM, Weinberg RL, Knight AC, Queen SE, Adams RJ, and Mankowski JL.](#)
SIV-Induced Activation and Metabolic Alterations in the Doral Root Ganglia During Acute Infection.
J. Neuropathol. Exp. Neurol. 2018. DOI:10.1093/jnen/nly111. [Epub ahead of print]. PMID: 30500918.
[Nanostring Gene Expression assay]
- [Kalin JH, Wu M, Gomez AV, Song Y, Das J, Hayward D, Adejola N, Wu M, Panova I, Chung HJ, Kim E, Roberts HJ, Roberts JM, Prusevish P, Jeliazkov JR, Roy Burman SS, Fairall L, Milano C, Eroglu A, Proby MA, Hu Y, Ryu B, Schwabe JWR, Mattevi A, Alani RM, and Cole PA.](#)
Targeting the CoREST complex with dual histone deacetylase and demethylase inhibitors.
Nat. Commun. 2018 9(1): 53. DOI:10.1038/s41467-017-02242-4. PMID:

29302039.

[Affymetrix Human Gene 2.0ST array and data analysis]

- [Knaus HA](#), [Berglund S](#), [Hackl H](#), [Blackford AL](#), [Zeidner JF](#), [Montiel-Esparza R](#), [Mukhopadhyay R](#), [Vanura K](#), [Blazar BR](#), [Karp JE](#), [Luznik L](#), and [Gojo I](#).

Signatures of CD8+ T cell dysfunction in AML patients and their reversibility with response to chemotherapy.

JCI Insight. 2018. 3(21). pii: 120974. DOI:10.1172/jci.insight.120974. PMID: 30385732.

[Affymetrix Human PrimeView array and data analysis]

- [Liu X](#), [Abraham JM](#), [Cheng Y](#), [Wang Z](#), [Wang Z](#), [Zhang G](#), [Ashktorab H](#), [Smoot DT](#), [Cole RN](#), [Boronina TN](#), [DeVine LR](#), [Talbot CC Jr](#), [Liu Z](#), and [Meltzer SJ](#).

Synthetic Circular RNA Functions as a miR-21 Sponge to Suppress Gastric Carcinoma Cell Proliferation.

Mol. Ther. Nucleic Acids. 2018. 13:312-321. DOI: 10.1016/j.omtn.2018.09.010. PMID: 30326427.

[Data Analysis]

- [Sabbagh MF](#), [Heng JS](#), [Luo C](#), [Castanon RG](#), [Nery JR](#), [Rattner A](#), [Goff LA](#), [Ecker JR](#), and [Nathans J](#).

Transcriptional and epigenomic landscapes of CNS and non-CNS vascular endothelial cells.

eLife. 2018. 7:e36187. DOI: 10.7554/eLife.36187. PMID: 30188322.

[Nugen RNAseq library prep and Illumina sequencing]

- [Wagner CL](#), [Hanumanthu VS](#), [Talbot CC Jr](#), [Abraham RS](#), [Hamm D](#), [Gable DL](#), [Kanakry CG](#), [Applegate CD](#), [Siliciano J](#), [Jackson JB](#), [Desiderio SV](#), [Alder JK](#), [Luznik L](#), and [Armanios M](#).

Short telomere syndromes cause a primary T cell immunodeficiency.

JCI. 2018 Sep.4. pii:120216. DOI: 10.1172/JCI120216. [Epub ahead of print]. PMID: 30179220.

[Affymetrix Human PrimeView array and data analysis]

- [Clark B](#), [Stein-O'Brien G](#), [Shiau F](#), [Cannon G](#), [Davis E](#), [Sherman T](#), [Rajaii F](#), [James-Esposito R](#), [Gronostajski R](#), [Fertig E](#), [Goff L](#), [Blackshaw S](#).

Comprehensive analysis of retinal development at single cell resolution identifies NFI factors as essential for mitotic exit and specification of late-bore cells.

bioRxiv. 2018 July 27. DOI:https://doi.org/10.1101/378950.

[Illumina NextSeq 500 sequencing of 10X Genomic scRNA library]

- [Iglesias M](#), [Arun A](#), [Chicco M](#), [Lam B](#), [Talbot CC Jr](#), [Ivanova V](#), [Lee WPA](#), [Brandacher G](#), and [Raimondi G](#).

Type-1 Interferons Inhibit Interleukin-10 Signaling and Favor Type 1 Diabetes Development in Nonobese Diabetic Mice.

Front Immunol. 2018. 9:1565. DOI: 10.3389/fimmu.2018.01565. PMID: 30061883.

[RNAseq data analysis]

- [Wang J](#), [Zibetti C](#), [Shang P](#), [Sripathi SR](#), [Zhang P](#), [Cano M](#), [Hoang T](#), [Xia S](#), [Ji H](#), [Merbs SL](#), [Zack DJ](#), [Handa JT](#), [Sinha D](#), [Blackshaw S](#), and [Qian J](#).

ATAC-Seq analysis reveals a widespread decrease of chromatin accessibility in age-related macular degeneration.

Nat. Commun. 2018. 9, 1364. doi: 10.1038/s41467-018-03856-y. PMID: 29636475.

[Illumina Sequencing]

- [Cottagiri M](#), [Nyandjo M](#), [Stephens M](#), [Mantilla J](#), [Saito H](#), [Mackay IR](#), [Rose NR](#), and [Njoku DB](#).

In drug-induced, immune-mediated hepatitis, interleukin-33 reduces hepatitis and improves

survival independently and as a consequence of FoxP3+ T-cell activity.

Cell. Mol. Immunol. 2018 July 20. doi: 10.1038/s41423-018-0087-y. [Epub ahead of print]. PMID: 30030493.

[Nanostring Pan Cancer Immunology Panel and data analysis]

- [Monaco D, Kottapalli S, Yuan T, Breitwieser F, Anderson D, Wijaya L, Tan K, Chia WN, Kammers K, Caturegli M, Waugh K, Rewers M, Wang L-F, and Larman H.](#)

Deconcoluting Virome-Wide Antiviral Antibody Profiling Data.

bioRxiv. 2018. DOI: <https://doi.org/10.1101/333625>.

[Illumina NextSeq 500 sequencing]

- [Yuan T, Mohan D, Laserson U, Ruczinski I, Baer A, and Larman HB.](#)

Improved Analysis of Phage ImmunoPrecipitation Sequencing (PhIP-Seq) Data.

bioRxiv. 2018. DOI: <https://doi.org/10.1101/285916>.

[Illumina NextSeq 500 sequencing]

- [Newman EA, Kim DW, Wan J, Wang J, Qian J, **Blackshaw S.**](#)

Foxd1 is required for terminal differentiation of anterior hypothalamic neuronal subtypes.

Dev. Biol. 2018. 439(2), 102-111. Doi:10.1016/j.ydbio.2018.04.012. PMID: 29679559.

[RNAseq]

- [Qiu X, Kumari G, Gerasimova T, Du H, Labaran L, Singh A, De S, Wood WH III, Becker KG, Zhou W, Ji H, and Sen R.](#)

Sequential Enhancer Sequestration Dysregulates Recombination Center Formation at IgH Locus.

Mol. Cell. 2018. 70(1),21-33. Doi:10.1016/j.molcel.2018.02.020. PMID:29576529.

[RNAseq]

- [Ferrer M, Gosline SJC, Stathis M, Zhang X, Guo X, Guha R, Ryman DA, Wallace MR, Kasch-Semenza L, **Hao H**, Ingersoll R, Mohr D, Thomas C, Verma S, Guinney J, and Blakeley JO.](#)

Pharmacological and genomic profiling of neurofibromatosis type 1 plexiform neurofibroma-derived schwann cells.

Sci. Data. 2018. 5,180106. Doi: 10.1038/sdata.2018.106. PMID: 29893754.

[RNAseq]

- [Iglesias M, Arun A, Chicco M, Lam B, **Talbot CC Jr**, Ivanova V, Lee WPA, Brandacher G, and Raimondi G.](#)

Type-I Interferons Inhibit Interleukin-10 Signaling and Favor Type 1 Diabetes Development in Nonobese Diabetic Mice.

Front. Immunol. 2018. 9, 1565. DOI: 10.3389/fimmu.2018.01565.

[data analysis]

- [Cack GH Jr, Zachara N, Rosenblum N, **Talbot CC Jr**, Kreimer S, Cole R, and McDonald TL.](#)

Serum amyloid A1 (SAA1) protein in human colostrum.

FEBS Open Bio. 2018. 8(3), 435-441. PMID: 29511620.

[data analysis]

- [Khambadkone SG, Corder ZA, Dickerson F, Severance EG, Prandovszke E, Pletnikov M, Xiao J, Boersma GJ, **Talbot CC Jr**, Campbell WW, Wright CS, Siple CE, Moran TH, Tamashiro KL, and Yolken RH.](#)

Nitrated meat products are associated with mania in humans and altered behavior and brain gene expression in rats.

Mol. Psych. 2018. Jul 18. doi:1.1038/s41380-018-0105-6. [Epub ahead of print]. PMID: 30022042.

[Thermal Fisher Affymetrix Rat Clariom S array and data analysis]

- [Castellanos M, Verhey TB, and Chaconas G.](#)
A *Borrelia burgdorferi* mini-*vls* system that undergoes antigenic switching in mice: investigation of the role of plasmid topology and the long inverted repeat.
Mol Microbiol. 2018 Jul 11. doi: 10.1111/mmi.14071.[Epub ahead of print]. PMID: 29995993.
 [PacBio RS II library preparation and sequencing]
- [Paffhausen ES, Alowais Y, Chao CW, Callihan EC, Creswell K, and Bracht JR.](#)
Discovery of a stem-like multipotent cell fate.
Am. J. Stem Cells. 2018. 7(2),25-37. PMID: 29938123.
 [Thermal Fisher Affymetrix Human PrimeView array]
- [Li X, Kleeman S, Coburn SB, Fumagalli C, Perner J, Jammula S, Pfeiffer RM, Orzolek L, Hao H, Taylor PR, Miremadi A, Galeano-Dalmau N, Lao-Sirieix P, Tennyson M, MacRae S, Cook MB, and Fitzgerald RC.](#)
Selection and Application of Tissue microRNAs for Non-endoscopic Diagnosis of Barrett's Esophagus.
Gastroenterology. 2018 Jun 12. pii: S0016-5085(18)34643-2. doi:10.1053/j.gastro.2018.05.050.[Epub ahead of print]. PMID: 29906417.
 [Nanostring miRNA assay]
- [Aguh C, Dina Y, Talbot C Jr, and Garza L.](#)
Fibroproliferative Genes are Preferentially Expressed in Central Centrifugal Cicatricial Alopecia.
J. Am. Acad. Dermatol. 2018 Jun 15. pii: S0190-9622(18)32134-0. doi: 10.1016/j.jaad.2018.05.1257. [Epub ahead of print]. PMID: 29913259.
 [Affymetrix Human Clariom S array and data analysis]
- [Wei S, Wang J, Oyinlade O, Ma D, Wang S, Kratz L, Lal B, Xu Q, Liu S, Shah SR, Zhang H, Li Y, Quiñones-Hinojosa A, Zhu H, Huang ZY, Cheng L, Qian J, and Xia S.](#)
Heterozygous IDH1^{R132H/WT} created by "single base editing" inhibits human astroglial cell growth by downregulating YAP.
Oncogene. 2018 May 30. doi: 10.1038/s41388-018-0334-9. [Epub ahead of print]. PMID: 29849122.
 [RNAseq]
- [Rupp O, MacDonald ML, Li S, Dhiman H, Polson S, Griep S, Heffner K, Hernandez I, Brinkrolf K, Jadhav V, Samoudi M, Hao H, Kingham B, Goesmann A, Betenbaugh MJ, and Lewis NE.](#)
A reference genome of the Chinese hamster based on a hybrid assembly strategy.
Biotechnol & Bioeng. 2018. 115(8); 2087-2100. DOI: 10.1002/bit.26722. PMID: 29704459.
 [PacBio Sequencing]
- [Sack GH Jr, Zachara N, Rosenblum N, Talbot CC Jr, Kreimer S, Cole R, and McDonald TL.](#)
Serum amyloid A1 (SAA1) protein in human colostrum.
FEBS Open Bio. 8(3):435-441. PMID:29511620.
 [data analysis]
- [Alghetaa H, Mohammed A, Sultan M, Busbee P, Murphy A, Chatterjee S, Nagarkatti M, and Nagarkatti P.](#)
Resveratrol protects mice against SEB-induced acute lung injury and mortality by miR-193a modulation that targets TGF- β signaling.
J. Cell. Mol. Med. DOI: 10.1111/jcmm.13542. [Epub ahead of print]
 [Affymetrix miRNA 4.0]
- [Becker W, Nagarkatti M, and Nagarkatti PS.](#)
miR-466a Targeting of TGF- β 2 Contributes to FoxP3+ Regulatory T Cell Differentiation in a

Muring Model of Allogeneic Transplantation.

Front. Immunol. 9:688. DOI: 10.3389/fimmu.2018.00688.

[Affymetrix miRNA 4.0]

- [Zhang T, Wu YC, Mullane P, Ji YJ, Liu H, He L, Arora A, Hwang H-Y, Alessi AF, Niaki AG, Periz G, Guo L, Wang H, Elkayam E, Joshua-Tor L, Myong S, Kim JK, Shorter J, Ong S-E, Leung AKL, and Wang J.](#)

FUS Regulates Activity of MicroRNA-Mediated Gene Silencing.

Mol. Cell. 2018. 69(5): 787-801. PMID: 29499134.

[Affymetrix Exon array and data analysis]

- [Chaudhuri AD, Dastgheyb RM, Yoo SW, Trout A, Talbot CC Jr, Hao H, Witwer KW, and Haughey NJ.](#)

TNF α and IL-1 β modify the miRNA cargo of astrocyte shed extracellular vesicles to regulate neurotrophic signaling in neurons.

Cell Death Dis. 2018. 9(3):363. DOI:10.1038/s41419-018-0369-4. PMID: 29507357.

[Nanostring miRNA assay and data analysis]

- [Zhang T, Azimzadeh AM, Sun W, O'Neill NA, Sievert E, Bergbower E, Braileanu G, Burdorf L, Cheng X, Monahan T, Dahi S, Harris D, Rybak E, Welty E, Kronfli A, Avon C, and Pierson RN.](#)

Selective CD28 inhibition modulates alloimmunity and cardiac allograft vasculopathy in anti-CD154-treated monkeys.

Transplantation. Jan. 2018. Published Ahead of Print(). PMID: 29319621.

[Nanostring]

- [Khan SY, Ali M, Kabir F, Renuse S, Talbot CC Jr, Hackett SF, and Riazuddin SA.](#)

Proteome Profiling of Developing Murine Lens Through Mass Spectrometry.

IOVS. 2018; 59, 100-107. PMID:29332127.

[data analysis]

- [Lewis LM, Edwards MC, Meyers ZR, Talbot Jr CC, Hao H, Blum D, Reproducibility Project: Cancer Biology.](#)

Replication Study: Transcriptional amplification in tumor cells with elevated c-Myc.

eLife 2018;7:e30274. DOI: 10.7554/eLife.30274. PMID: 29313490.

[Nanostring assays and data analysis]

2017 (35/9)

- [Drewes JL, White JR, Dejea CM, Fathi P, Iyadorai T, Vadivelu J, Roslani AC, Wick EC, Mongodin EF, Loke MF, Thulasi K, Gan HM, Goh KL, Chong HY, Kumar S, Wanyiri JW, and Sears CL.](#)

High-resolution bacterial 16s rRNA gene profile meta-analysis and biofilm status reveal common colorectal cancer consortia.

NPJ Biofilms Microbiomes. 2017. 3:34. DOI: 10.1038/s41522-017-0040-3.eCollection 2017. PMID:29214046.

[16s rRNA v3+v4 sequencing]

- [Shan L, Deng K, Gao H, Xing S, Capoferri AA, Durand CM, Rabi SA, Laird GM, Kim M, Hosmane NN, Yang H-C, Zhang H, Margolick JB, Li L, Cai W, Ke R, Flavell RA, Siliciano JD, and Siliciano RF.](#)

Transcriptional Reprogramming during Effector-to-Memory Transition Renders CD4 $^{+}$ T Cells Permissive for Latent HIV-1 Infection.

Immunity. 2017. 47(4), 766-775. DOI: 10.1016/j.immuni.2017.09.014.

PMID:29045905.

- [Illumina MiSeq sequencing, Affymetrix Human PrimeView array, and array data analysis]
- [Credle JJ, Itoh CY, Yuan T, Sharma R, Scott ER, Workman RE, Fan Y, Housseau F, Llosa NJ, Bell WR, Miller H, Zhang SX, Timp W, and Larman HB.](#) **Multiplexed analysis of fixed tissue RNA using Ligation *in situ* Hybridization.** *Nucleic Acids Res.* 2017. 45(14):e128. DOI:10.1093/nar/gkx471. PMID: 28854731.
[NextSeq 500 sequencing]
 - [Tosi L, Sridhara V, Yang Y, Guan D, Shpilker P, Segata N, Larman HB, Parekkadan B.](#) **Long-adapter single-strand oligonucleotide probes for the massively multiplexed cloning of kilobase genome regions.** *Nat. Biomed. Eng.* 2017. 1.pii:0092. DOI: 10.1038/s41551-017-0092. PMID: 29152409.
[NextSeq 500 sequencing]
 - [Angleró-Rodríguez YI, MacLeod HJ, Kang S, Carlson JS, Jupatanakul N, and Dimopoulos G.](#) ***Aedes aegypti* Molecular Responses to Zika Virus: Modulation of Infection by the Toll and Jak/Stat Immune Pathways and Virus Host Factors.** *Front Microbiol.* 2017. 8:2050. PMID: 29109710.
[RNAseq and data analysis]
 - [Zibetti C, Liu S, Wan J, Qian J, and Blackshaw S.](#) **Lhx2 regulates temporal changes in chromatin accessibility and transcription factor binding in retinal progenitor cells.** *bioRxiv.* 2017. 238279. DOI: <https://doi.org/10.1101/238279>.
[Illumina sequencing]
 - [Zeitlin PL, Diener-West M, Callahan KA, Lee S, Talbot Jr CC, Pollard B, Boyle MP, and Lechtzin N.](#) **Digitoxin for Airway Inflammation in Cystic Fibrosis: Preliminary Assessment of Safety, Pharmacokinetics, and Dose Finding.** *Ann Am Thorac Soc.* 2017. 14(2):220-229. PMID: 28006108.
[Affymetrix Human Exon 1.0ST array and data analysis]
 - [Lee SS, Lu T, and Seydoux G.](#) **Nanos promotes epigenetic reprogramming of the germline by down-regulation of the THAP transcription factor LIN-15B.** *eLife.* 2017. 6:e30201. PMID: 29111977.
[Covaris sharing of SPIA cDNA and Nugen UL library preparation]
 - [Manning L, Sheth J, Bridges S, Saadin A, Odinammadu K, Andrew D, Spencer S, Montell D, and Starz-Gaiano M.](#) **A hormonal cue promotes timely follicle cell migration by modulating transcription profiles.** *Mech. Dev.* 2017. 148:56-68. PMID: 28610887.
[data analysis assistance]
 - [Bam M, Yang X, Sen S, Zumbun EE, Dennis L, Zhang J, Nagarkatti PS, and Nagarkatti M.](#) **Characterization of Dysregulated miRNA in Peripheral Blood Mononuclear Cells from Ischemic Stroke Patients.** *Mol Neurobiol.* 2017. PMID: 28168424.
[Affymetrix microRNA 3.0 microarray]
 - [Vesuna F, Bergman Y, and Raman V.](#) **Genomic pathways modulated by Twist in breast cancer.**

- BMC Cancer*. 2017. 17(1):52. PMID: 28138868.
[Affymetrix Human Genome U133Plus2 and data analysis]
- [Mehrpooya-Bahrami P, Chitralla KN, Ganewatta MS, Tang C, Murphy EA, Enos RT, Velazques KT, McCellan J, Nagarkattis M, and Nagarkatti P.](#)
Blockade of CB1 cannabinoid receptor alters gut microbiota and attenuates inflammation and diet-induced obesity.
Sci. Rep. 7(1):15645. PMID:29142285.
[16s rRNA sequencing]
 - [Asrani K, Sood A, Torres A, Georgess D, Phatak P, Kaur H, Dubin A, Talbot CC Jr, Elhelu L, Ewald AJ, Xiao B, Worley P, and Lotan TL.](#)
mTORC1 loss impairs epidermal adhesion via TGF- β /Rho kinase activation.
J Clin Invest. 127(11): 4001-4017. PMID:28945203.
[Affymetrix mouse MTA 1.0 array and data analysis]
 - [Tsimis ME, Lei J, Rosenzweig JM, Arif H, Shabi Y, Alshehri W, Talbot CC, Baiq-Ward KM, Segars J, Graham EM, and Burd I.](#)
P2X7 receptor blockade prevents preterm birth and perinatal brain injury in a mouse model of intrauterine inflammation.
Biol Reprod. 97(2):230-239. PMID:29044426.
[Affymetrix Mouse Gene 1.0ST array and data analysis]
 - [Wang J, Kollarik M, Ru F, Sun H, McNeil B, Dong X, Stephens G, Korolevish S, Brohawn P, Kolbeck R, Udem B.](#)
Distinct and common expression of receptors for inflammatory mediators in vagal nodose versus jugular capsaicin-sensitive/TRPV1-positive neurons detected by low input RNA sequencing.
PLoS One 12(10):e0185985. PMID:28982197.
[RNAseq: clontech SMARTer Ultra Low Input RNA kit v3]
 - [van de Garde MDB, Pas SD, van Oord GW, Gama L, Choi Y, deMan RA, Boonstra A, and Vanwolleghem T.](#)
Interferon-alpha treatment rapidly clears Hepatitis E virus infection in humanized mice.
Sci Rep. 2017. 7, 8267. PMID: 28811492.
[Nanostring assay]
 - [Bam M, Yang X, Zumbun EE, Ginsberg JP, Leyden Q, Zhang J, Nagarkatti PS, and Nagarkatti M.](#)
Decreased AGO2 and DCR1 in PBMCs from War Veterans with PTSD leads to diminished miRNA resulting in elevated inflammation.
Transl. Psychiatry. 2017. 7,e1222. PMID: 28850112.
[Affymetrix miRNA array]
 - [Wan J, Su Y, Song Q, Tung B, Oyinlade O, Liu S, Ying M, Ming G-L, Song H, Qian J, Zhu H, and Xia S.](#)
Methylated cis-Regulatory Elements Mediate KLF4-dependent Gene Transactivation and Cell Migration.
eLife. 2017. 6,e20068.
[RNAseq]
 - [Kates M, Nirschl T, Sopko NA, Matsui H, Kochel CM, Reis LO, Netto GJ, Hoque MO, Hahn NM, McConkey DJ, Baras AS, Drake CG, and Bivalacqua TJ.](#)
Intravesical BCG Induces CD4+ T-Cell Expansion in an Immune Competent Model of Bladder Cancer.
Cancer Immunol. Res. 2017. 5(7), 594-603. PMID: 28588015.
[Affymetrix rat Gene 1.0ST array and microarray data analysis]
 - [Cao J, Peng J, An H, He Q, Boronina T, Guo S, White MF, Cole PA, and He L.](#)
Endotoxemia-mediated activation of acetyltransferase P300 impairs insulin signaling in

obesity.

Nat Commun. 2017, 8:131. PMID:28743992.

[Affymetrix mouse Clariom S array and data analysis]

- [Gaykalova DA, Zizkova V, Guo T, Tiscareno I, Wei Y, Vatapalli R, Hennessey PT, Ahn J, Danilova L, Khan Z, Bishop JA, Gutkind JS, Kock WM, Westra WH, Fertig EJ, Oches MF, and Califano JA.](#)

Integrative computational analysis of transcriptional and epigenetic alterations implicates DTX1 as a putative tumor suppressor gene in HNSCC.

Oncotarget. 2017; 8(9): 15349-15363. PMID: 28146432.

[Affymetrix Human Exon 1.0ST]

- [Chitralla KN, Guan H, Singh NP, Busbee B, Gandy A, Mehrpouya-Bahrami, Ganewatta MS, Tang C, Chatterjee S, Nagarkatti P, and Nagarkatti M.](#)

CD44 deletion leading to attenuation of experimental autoimmune encephalomyelitis results from alterations in gut microbiome in mice.

Euro. J. Immunol. 47(7), 1188-1199. PMID: 28543188.

[16s rRNA sequencing]

- [Whitworth GB, Misaghi BC, Rosenthal DM, Mills EA, Heinen DJ, Watson AH, Ives CW, Ali SH, Bezold K, Marsh-Armstrong, and Watson FL.](#)

Translational profiling of retinal ganglion cell optic nerve regeneration in *Xenopus laevis*.

Developmental Biology, 426(2), 360-373. PMID:27471010.

[RNAseq]

- [Stein-O'Brien G, Kagohara LT, Li S, Thakar M, Ranaweera R, Ozawa H, Cheng H, Considine M, Favorov A, Danilova L, Califano J, Izumchenko E, Gaykalova DA, Chung CH, and Fertig EJ.](#)

Untangling the gene-epigenome networks: timing of epigenetic regulation of gene expression in acquired cetuximab resistance.

bioRxiv(2017): 136564.

[RNAseq]

- [Correa-Garhwal SM, Chaw RC, Clark III TH, Ayoub NA and Hayashi CY.](#)

Silk gene expression of theridiid spiders: implications for male-specific silk use.

Zoology. Available online 26 April 2017. In Press.

[RNAseq library preparation]

- [Zhu AS, Li A, Ratliff TS, Melsom M, and Garza LA.](#)

After skin wounding, noncoding dsRNA coordinates prostaglandins and Wnts to promote regeneration.

J. Invest. Dermatol. 2017 Apr. 6. pii:S0022-202X(17)31395-7. doi:

10.1016/j.jid.2017.03.023.[Epub ahead of print]. PMID: 28392344.

[Affymetrix Human PrimeView array and data analysis]

- [Pollack RA, Jones RB, Perteau M, Bruner KM, Martin AR, Thomas AS, Capoferri AA, Beg SA, Huang SH, Karadish S, **Hao H**, Halper-Stromberg E, Yong PC, Kovacs C, Benko E, Siliciano RF, and Ho YC.](#)

Defective HIV-1 Proviruses Are Expressed and Can Be Recognized by Cytotoxic T Lymphocytes, which Shape the Proviral Landscape.

Cell Host Microbe. 21(4):494-506.e4. PMID: 28407485.

[PacBio Sequencing and Data analysis]

- [Zimin AV, Stevens KA, Crepeau MW, Puiu D, Wegrzyn JL, Yorke JA, Langley CH, Neale DB, and Salzberg SL.](#)

An improved assembly of the loblolly pine mega-genome using long-read single-molecule sequencing.

Gigascience. 6(1): 1-4. DOI: <https://doi.org/10.1093/gigascience/giw016>.

[PacBio RS II sequencing]

- [Agmon N, Tang Z, Yang K, Sutter B, Ikushima S, Cai Y, Caravelli K, Martin JA, Sun X, Choi WJ, Zhang A, Stracquadanio G, Hao H, Tu BP, Fenyo D, Bader JS, and Boeke JD.](#)
Low escape-rate genome safeguards with minimal molecular perturbation of *Saccharomyces cerevisiae*.
PNAS Feb. 7, 2017. Published online before print. doi: 10.1073/pnas.1621250114.
 [RNAseq and data analysis]
- [Tang HM, Talbot Jr CC, Fung MC, and Tang HL.](#)
Molecular signature of anastasis for reversal of apoptosis.
F1000Research. 2017, 6:43(doi:10.12688/f1000research.10568.1).
 PMID:28299189.
 [Data Analysis]
- [Yang JP, Anderson AE, McCartney A, Ory X, Ma G, Pappalardo E, Bader J, and Elisseeff J.](#)
Metabolically active 3-dimensional brown adipose tissue engineered from white adipose-derived stem cells.
Tissue Eng Part A. 2017 Jan. 10. doi:10.1089/ten.TEA.2016.0399.[Epub ahead of print].PMID:28073315.
 [RNAseq]
- [Shamran H, Singh NP, Zumbun EE, Murphy A, Taub DD, Mishra MK, Price RL, Chatterjee S, Nagarkatti M, Nagarkatti PS, and Singh UP.](#)
Fatty acid amide hydrolase (FAAH) blockade ameliorates experimental colitis by altering microRNA expression and suppressing inflammation.
Brain, Behavior, and Immunity. 59,10-20. PMID: 27327245.
 [Affymetrix miRNA v.4 array]
- [Sussan TE, Sudini K, Talbot CC Jr, Wang X, Wills-Karp M, Burd I, Biswal S.](#)
Nrf2 regulates gene-environment interactions in an animal model of intrauterine inflammation: Implications for preterm birth and prematurity.
Sci Rep. 2017 Jan 10; 7:40194. PMID: 28071748.
 [data analysis]
- [Bedont JL, LeGates TA, Buhr E, Bathini A, Ling JP, Bell B, Wu MN, Wong PC, Van Gelder RN, Mongrain V, Hattar S, and Blackshaw S.](#)
An LHX1-Regulated Transcriptional Network Controls Sleep/Wake Coupling and Thermal Resistance of the Central Circadian Clockworks.
Current Biology. 27,1-9. PMID: 28017605.
 [RNAseq]
- [Kuang Z, Boeke JD, and Canzar S.](#)
The dynamic landscape of fission yeast meiosis alternative-splice isoforms.
Genome Res. 2017. 27,145-156.
 [PacBio RS II IsoSeq]

2016 (44/10)

- [Horiuchi Y, Kondo MA, Okada K, Takayanagi Y, Tanaka T, Ho T, Varvaris M, Tajinda K, Hiyama H, Ni K, Colantuoni C, Schretlen D, Cascella NG, Pevsner J, Ishizuka K, and Sawa A.](#)
Molecular signatures associated with cognitive deficits in schizophrenia: a study of biopsied olfactory neural epithelium.
Transl. Psychiatry. 2016. 6(10): e915. DOI: 10.1038/tp.2016.154. PMID:

27727244.

[Affymetrix Human U133 Plus 2.0 array hybridization and processing]

- [Lee J, Choi J, Scafidi S, and Wolfgang MJ.](#)
Hepatic Fatty Acid Oxidation Restrains Systemic Catabolism during Starvation.
Cell Rep. 16(1): 201-212. PMID: 27320917.
[Affymetrix mouse Exon 1.0ST array and data analysis]
- [Lee J, Choi J, Aja S, Scafidi S, and Wolfgang MJ.](#)
Loss of Adipose Fatty Acid Oxidation Does Not Potentiate Obesity at Thermoneutrality.
Cell Rep. 14(6): 1308-1316. PMID: 26854223.
[Affymetrix mouse Exon 1.0 ST array and data analysis]
- [Paksa A, Bandemer J, Hoekendorf B, Razin N, Tarbashevich K, Minina S, Meyen D, Biundo A, Leidel SA, Peyrieras N, Gov NS, Keller PJ, and Raz E.](#)
Repulsive cues combined with physical barriers and cell-cell adhesion determine progenitor cell positioning during organogenesis.
Nat. Commun. 2016. 7: 11288. PMID: 27088892.
[RNAseq and data analysis]
- [Edward DP, Mahale A, Hao H, Khan A, Hameed S, Al Jadaan I, Owaidhah O, Kondkar AA, Al Shamrani M, Shahwan SA, and Abu-Amero KK.](#)
Aqueous humor microRNA profiling in primary congenital glaucoma.
J. Transl. Sci. DOI:10.15761/JTS.1000169.
[Affymetrix miRNA v4 and data analysis]
- [Sido JM, Jackson AR, Nagarkatti PS, and Nagarkattis M.](#)
Marijuana-derived Δ -9-tetrahydrocannabinol suppresses Th1/Th17 cell-mediated delayed-type hypersensitivity through microRNA regulation.
J Mol Med. 2016. 94(9):1039-51. PMID: 27038180.
[Affymetrix miRNA 4.0 microarray]
- [Liang L, Gu X, Zhao J-Y, Wu S, Miao X, Xiao J, Mo K, Zhang J, Lutz BM, Bekker A, and Tao Y-X.](#)
G9a participates in nerve injury-induced Kcna2 downregulation in primary sensory neurons.
Sci Rep. 6:37704. PMID: 27874088.
[Affymetrix Mouse Exon 1.0ST array]
- [Benjamin JS, Pilarowski GO, Carosso GA, Zhang L, Huso DL, Goff LA, Vernon HJ, Hansen KD, and Bjornsson HT.](#)
A ketogenic diet rescues hippocampal memory defects in a mouse model of Kabuki syndrome.
Proc. Natl. Acad. Sci. USA. 2016 Dec. 20. pii:201611431. PMID: 27999180.
[Affymetrix Mouse Gene 1.0 ST array]
- [van de Garde MDB, Movita D, van der Heide M, Herschke F, De Jonghe S, Gama L, Boonstra A, and Vanwolleghe T.](#)
Liver Monocytes and Kupffer Cells Remain Transcriptionally Distinct during Chronic Viral Infection.
PLOS One. <http://dx.doi.org/10.1371/journal.pone.0166094>. PMID: 27812182.
[Nanostring Assay]
- [Sharma N, LaRusch J, Sosnay P, Gottschalk LB, Lopez A, Pellicore MJ, Evans T, Davis E, Atalar M, Na CH, Rosson GD, Belchis D, Milewski M, Pandey A, and Cutting GR.](#)
A sequence upstream of canonical PDZ binding motif within CFTR C-terminus enhances NHERF1 interaction.
Am J. Physiol Lung Cell Mol Physiol. [Epub ahead of print]. PMID: 27793802.
[RNAseq]
- [Achanta P, Steranka JP, Tang Z, Rodić N, Sharma R, Yang WR, Ma S, Grivainis M, Huang CRL, Schneider AM, Gallia GL, Riggins GJ, Quinones-Hinojosa A,](#)

Fenyö D, Boeke JD, and Burns KH.

Somatic retrotransposition is infrequent in glioblastomas.

Mobile DNA 7,22. DOI:10.1186/s13100-016-0077-5. PMID: 27843500.

[Illumina Sequencing and Affymetrix SNP 6.0]

- *Ladle BH, Li K-P, Phillips MJ, Pucsek AB, Haile A, Powell JD, Jaffee EM, Hildeman DA, and Gamper CJ.*

De novo DNA methylation by DNA methyltransferase 3a controls early effector CD8⁺ T-cell fate decisions following activation.

Proc Natl Acad Sci USA. 113(38), 10631-6. PMID: 27582468.

[Nanostring Gene Expression Assay]

- *Zimmerlin L, Park TS, Huo JS, Verma K, Pather SR, Talbot CC Jr., Agarwal J, Steppan D, Zhang YW, Considine M, Guo H, Zhong X, Gutierrez C, Cope L, Canto-Soler MV, Friedman AD, Baylin SB, and Zambidis ET.*

Tankyrase inhibition promotes a stable human naïve pluripotent state with improved functionality.

Development. 2016 Sep 22. pii:dev.138982. [Epub ahead of print].

PMID:27660325.

[data analysis]

- *Bam M, Yang X, Zumbun EE, Zhong Y, Zhou J, Ginsberg JP, Leyden Q, Zhang J, Nagarkatti PS, and Nagarkatti M.*

Dysregulated immune system networks in war veterans with PTSD is an outcome of altered miRNA expression and DNA methylation.

Sci Rep. 6, 31209. PMID:27510991.

[Affymetrix miRNA array]

- *Chaw RC, Arensbarger P, Clarke III TH, Ayoub NA, and Hayashi CY.*

Candidate egg case silk genes for the spider *Argiope argentata* from differential gene expression analyses.

Insect Mol Bio. 2016 Aug 8. doi:10.1111/imb.12260 [Epub ahead of print]. PMID: 27500384.

[RNAseq library preparation]

- *Artyomenko A, Wu NC, Mangul S, Eskin E, Sun R, and Zelikovsky A.*

Long Single-Molecule Reads Can Resolve the Complexity of the Influenza Virus Composed of Rare, Closely Related Mutant Variants.

in Research in Computational Molecular Biology. Volume 9649 of the series Lecture Notes in Computer Science. pp. 164-175.

[PacBio Sequencing]

- *Sliva A, Kuang Z, Meluh PB, and Boeke JD.*

Barcode sequencing screen identifies *SUB1* as a regulator of yeast pheromone inducible genes. *G3(Bethesda).* 2016. 6(4), 881-92. PMID: 26837954.

[Deep Sequencing: barcode seq, ChIPseq, RNAseq]

- *Gottschalk LB, Vecchio-Pagan B, Sharma N, Han ST, Franca A, Wohler ES, Batista DAS, Goff LA, and Cutting GR.*

Creation and characterization of an airway epithelial cell line for stable expression of CFTR variants.

J Cyst Fibros. 15, 285-94. PMID: 26694805.

[RNAseq]

- *Mvubu NE, Pillay B, Gamielien J, Bishai W, and Pillay M.*

Canonical pathways, networks and transcriptional factor regulation by clinical strains of *Mycobacterium tuberculosis* in pulmonary alveolar epithelial cells.

Tuberculosis. 97, 73-85. PMID:26980499.

[RNAseq]

- [Mvubu NE, Pillay B, Gamielidien J, Bishai W, and Pillay M.](#)
***Mycobacterium tuberculosis* strains exhibit differential and strain-specific molecular signatures in pulmonary epithelial cells.**
Dev Comp Immuolo. 65, 321-329. PMID: 27497873.
 [RNAseq]
- [Kleensang A, Vantaangoli MM, Odwin-Dacosta S, Andersen ME, Boekelheide K, Bouhifd M, Fornace Jr AJ, Li H-H, Livi CB, Madnick S, Maertens A, Rosenberg M, Yager JD, Zhaog L, and Hartung T.](#)
Genetic variability in a frozen batch of MCF-7 cells invisible in routine authentication affecting cell function.
Sci Rep 6, 28994. PMCID: PMC4960662.
 [Agilent miRNA and CGH/SNP arrays]
- [Foster DB, Liu T, Kammers K, O'Meally R, Yang N, Papanicolaou KN, Talbot CC Jr, Cole RN, and O'Rourke B.](#)
Integrated Omic Analysis of a Guinea Pig Model of Heart Failure and Sudden Cardiac Death.
J Proteome Res. 2016 Aug. 3. [Epub ahead of print]. PMID: 27399916.
 [Affymetrix Guinea Pig GeneChip array and data analysis]
- [O'Grady T, Wang X, zu Bentrup KH, Baddoo M, Concha M, and Flemington EK.](#)
Global transcript structure resolution of high gene density genomes through multi-platform data integration.
Nucl. Acids Res. 2016. 44(18),e145. PMID: 27407110.
 [PacBio Iso-Seq]
- [Williams DW, Engle EL, Shirk EN, Queen SE, Gama L, Mankowski JL, Zink MC, and Clements JE.](#)
Splenic Damage during SIV infection: Role of T-Cell Depletion and Macrophage Polarization and Infection.
Am J. Pathol. 186(8), 2068-87. PMID: 27322772.
 [Nanostring Assay]
- [Campbell DP, Chrysostomou E, and Doetzlhofer A.](#)
Canonical Notch signaling plays an instructive role in auditory supporting cell development.
Sci. Rep. 2016; 6: 19484. PMID: 26786414.
 [Affymetrix mouse Exon 1.0ST arrays and data analysis]
- [Oh Y, Cho GS, Li Z, Hong I, Zhu R, Kim MJ, Kim YJ, Tampakakis E, Tung L, Haganir R, Dong X, Kwon C, Lee G.](#)
Functional Coupling with Cardiac Muscle Promotes Maturation of hPSC-Derived Sympathetic Neurons.
Cell Stem Cell. Published Online ahead of Print 16 June, 2016. PMID:27320040.
 [Affymetrix Human PrimeView array]
- [Burr R, Stewart EV, Shao W, Zhao S, Hannibal-Bach HK, Ejsing CS, and Espenshade PJ.](#)
Mga2 Transcription Factor Regulates an Oxygen-responsive Lipid Homeostasis Pathway in Fission Yeast.
JBC. 291, 12171-12183. PMID:27053105.
 [data analysis]
- [Salzberg SL, Breitwieser FP, Kumar A, Hao H, Burger P, Rodriguez FJ, Lim M, Quiñones-Hinojosa A, Gallia GL, Tornheim JA, Melia MT, Sears CL, and Pardo CA.](#)
Next-generation sequencing in neuropathologic diagnosis of infections of the nervous system.
Neuroimmunol. Neuroinflam. 2016. 3(4),e251. Published online June 13, 2016.
 [Nucleic Acid extraction, DNaseq, and RNAseq]

- [Heidecker B, Kittleson MM, Kasper EK, Wittstein IS, Champion HC, Russell ST, Baughman KL, and Hare JM.](#)
Transcriptomic Analysis Identifies the Effect of Beta-Blocking Agents on a Molecular Pathway of Contraction in the Heart and Predicts Response to Therapy.
JACC:Basic to Translational Science. 2016. 1, 107-121.
 [Affymetrix Human U133Plus 2.0 GeneChip]
- [Zheng F, Kim YJ, Moran TH, Li H, and Bi S.](#)
Central transthyretin acts to decrease food intake and body weight.
Sci Rep. 2016. 6:24238. PMID: 27053000.
 [Affymetrix Rat Genome 230 2.0 GeneChip]
- [Wu D, Talbot CC Jr, Liu Q, Jing ZC, Damico RL, Tuder R, Barnes KC, Hassoun PM, and Gao L.](#)
Identifying microRNAs targeting Wnt/β-catenin pathway in end-stage idiopathic pulmonary arterial hypertension.
J Mol Med (Berl). 2016 [Epub ahead of print]. PMID: 27188753.
 [Agilent miRNA microarray and data analysis]
- [Choi IY, Lim HT, Estrellas K, Mula J, Cohen TV, Zhang Y, Donnelly CJ, Richard J-P, Kim YJ, Kim H, Kazuki Y, Oshimura M, Li HL, Hotta A, Rothstein J, Maragakis N, Wagner KR, and Lee G.](#)
Concordant but varied phenotypes among Duchenne muscular dystrophy patient-specific myoblasts derived using a human iPSC-based model.
Cell Reports. 2016. pii:S2211-1247(16)30584-8.[Epub ahead of print]. PMID: 27239027.
 [Microarray and Data Analysis]
- [Khan SY, Vasanth S, Kabir F, Gottsch JD, Khan AO, Chaerkady R, Lee MW, Leitch CC, Ma Z, Laux J, Villasmil R, Khan SN, Riazuddin S, Akram J, Cole RN, Talbot CC, Pourmand N, Zaghloul NA, Hejtmancik JF, and Riazuddin SA.](#)
FOXE3 contributes to Peters anomaly through transcriptional regulation of an autophagy-associated protein termed DNAJB1.
Nat. Commun. 2016. 7, 10953. PMID: 27218149.
 [data analysis]
- [Kimura K and Huang RCC.](#)
Tetra-O-Methyl Nordihydroguaiaretic Acid Broadly Suppresses Cancer Metabolism and Synergistically Induces Strong Anticancer Activity in Combination with Etoposide, Rapamycin and UCN-01.
PLoS One. 11(2): e0148685. PMID: 26886430.
 [RNAseq and data analysis]
- [Uosaki H, Cahan P, Lee DI, Wang S, Miyamoto M, Fernandez L, Kass DA, and Kwon C.](#)
Transcriptional Landscape of Cardiomyocyte Maturation.
Cell Rep. 13(8), 1705-16. PMID: 26586429.
 [Affymetrix Mouse MOE430 2.0 array]
- [Tomaszkiewicz M, Rangavittal S, Cechova M, Sanchez RC, Fescemyer HW, Harris R, Ye D, O'Brien PC, Chikhi R, Ryder OA, Ferguson-Smith MA, Mevedev P, and Makova KD.](#)
A time- and cost-effective strategy to sequence mammalian Y Chromosomes: an application to the de novo assembly of gorilla Y.
Genome Res. 26(4), 530-540. PMID: 26934921.
 [PacBio Sequencing]
- [Kim D, Hossain MZ, Nieves A, Gu L, Ratliff TS, Oh SM, Park A, Han S, Yang NB, Qi J, Taube JM, Kang S, and Garza LA.](#)

To Control Site-Specific Skin Gene Expression, Autocrine Mimics Paracrine Canonical Wnt Signaling and is Activated Ectopically in Skin Disease.

Am J Pathol. 186(5), 1140-50. PMID: 27105735.

[Affymetrix Human Exon 1.0ST]

- *de Melo J, Zibetti C, Clark BS, Hwang W, Miranda-Angulo AL, Qian J, and Blackshaw S.*
Lhx2 is an essential factor for retinal gliogenesis and Notch signaling.
J. Neurosci. 36(8), 2391-405. PMID: 26911688.
[RNAseq]
- *Cheung KJ, Padmanaban V, Silvestri V, Schipper K, Cohen JD, Fairchild AN, Gorin MA, Verdone JE, Pienta KJ, Bader JS, and Ewald AJ.*
Polyclonal breast cancer metastases arise from collective dissemination of keratin 14-expressing tumor cell clusters.
Proc. Natl. Acad. Sci. USA. 113(7): E854-63. PMID: 26831077.
[RNAseq]
- *Steinberg B, and Ostermeier M.*
Environmental changes bridge evolutionary valleys.
Sci. Advances. 2(1):e1500921. PMID: 26844293.
[PacBio RS II sequencing]
- *Rettig EM, Talbot C, Sausen M, Jones S, Bishop JA, Wood LD, Tokheim C, Niknafs N, Karchin R, Fertig E, Wheelan S, Marchionni L, Considine M, Fakhry C, Papadopoulos N, Kinzler KW, Vogelstein B, Ha PK, and Agrawal N.*
Whole-Genome Sequencing of Salivary Gland Adenoid Cystic Carcinoma.
Cancer Prev. Res. (Phila.). 2016 Feb. 9 [Epub ahead of print]. PMID: 26862087.
[data analysis]
- *Wood LW, Cox NI, Phelps CA, Lai SC, Poddar A, Talbot C Jr, and Mu D.*
Thyroid Transcription Factor 1 Reprograms Angiogenic Activities of Secretome.
Sci. Rep. 6, 19587. PMID: 26912193.
[data analysis]
- *Guan H, Singh UP, Rao R, Mrelashvili D, Sen S, Hao H, Zumbun EE, Singh NP, Nagarkatti PS, and Nagarkatti M.*
Inverse Correlation of Expression of miR-140-5p with Progression of Multiple Sclerosis and Differentiation of Encephalitogenic Th1 cells.
Immunology. Accepted Article (published online first Jan 18, 2016). PMID: 26780721.
[Affymetrix miRNA 4.0]
- *Loganathan R, Lee JS, Wells MB, Grevengeod E, Slattery M, and Andrew DJ.*
Ribbon regulates morphogenesis of the *Drosophila* embryonic salivary gland through transcriptional activation and repression.
Dev Biol. 409(1), 234-50. PMID: 26477561.
[Affymetrix *Drosophila* genome 2.0 array and data analysis]

2015 (28/10)

- *Sinclair SH, Yegnasubramanian S, and Dumler JS.*
Global DNA methylation changes and differential gene expression in *Anaplasma phagocytophilum*-infected human neutrophils.
Clinical Epigenetics. 7, 77. PMID: 26225157.
[data analysis]
- *Kremkow BG, Baik JY, MacDonald ML, and Lee KH.*
CHOgenome.org 2.0: Genome resources and website updates.

- Biotechnol. J.* 10(7), 931-8. PMID:25923813.
[PacBio RS II Sequencing]
- [Lee SS, Bohrson C, Pike AM, Wheelan SJ, and Greider CW.](#)
ATM Kinase Is Required for Telomere Elongation in Mouse and Human Cells.
Cell Reports. 13(8), 1623-1632. PMID: 26586427.
[PacBio RS II Sequencing]
 - [Blum D, Hao H, McCarthy M, and Reproducibility Project: Cancer Biology.](#)
Registered report: Transcriptional amplification in tumor cells with elevated c-Myc.
eLife. 2015; 4:e04024. DOI:<http://dx.doi.org/10.7554/eLife.04024.001>.>
[Nanostring assay]
 - [Drahos J, Schwameis K, Orzolek LD, Hao H, Birner P, Tayler PR, Pfeiffer RM, Schoppmann SF, and Cook MB.](#)
MicroRNA profiles of Barrett's esophagus and esophageal adenocarcinoma: differences in glandular non-native epithelium.
Cancer Epidemiology, Biomarkers & Prevention. Published Online First November 24, 2015. PMID:26604271.
[Nanostring human miRNA assay]
 - [Artyomenko A, Wu NC, Mangul S, Eskin E, Sun R, and Zelikovsky A.](#)
2SNV: Quasispecies Reconstruction from PacBio Reads.
Computational Advances in Bio and Medical Sciences (ICCABS), 2015 IEEE 5th International Conference on. DOI:10.1119/ICCABS.2015.7344730.
[PacBio Sequencing]
 - [Lee YS, Talbot CC Jr, and Lee SJ.](#)
Genome-wide expression analysis comparing hypertrophic changes in normal and dysferlinopathy mice.
Genom Data. 6, 253-257. PMCID: PMID:26697388.
[Affymetrix mouse Exon 1.0ST array and data analysis]
 - [Mainigi M, Rosenzweig JM, Lei J, Mensah V, Thomaier L, Talbot Jr CC, Olalere D, Ord T, Rozzah R, Johnston MV, and Burd I.](#)
Peri-implantation hormonal Milieu: elucidating mechanisms of adverse neurodevelopmental outcomes.
Reprod. Sci. Published online before print Nov. 26, 2015. PMID:26614264.
[Affymetrix mouse Gene 1.0ST and miRNA 3.0, data analysis]
 - [Gaykalova DA, Manola JB, Ozawa H, Zizkova V, Morton K, Bishop JA, Sharma R, Zhang C, Michailida C, Considine M, Tan M, Fertig EJ, Hennessey PT, Ahn J, Kock WM, Westra WH, Khan Z, Chung CH, Ochs MF, and Califano JA.](#)
NF-kB and stat3 transcription factor signatures differentiate HPV-positive and HPV-negative head and neck squamous cell carcinoma.
IJC. 137(8), 1879-1889. PMID: 25857630.
[Affymetrix Human Exon 1.0ST and SNP 6.0 array]
 - [Truong DM, Hewitt FC, Hanson JH, Cui X, and Lambowitz AM.](#)
Retrohoming of a mobile group II intron in human cells suggests how eukaryotes limit group II intron proliferation.
PLoS Genetics. Aug. 4, 2015. DOI:10.1371/journal.pgen.1005422.
PMID:26241655.
[PacBio RS II sequencing]
 - [Khan SY, Hackett SF, Lee MW, Pourmand N, Talbot CC Jr, and Riazuddin SA.](#)
Transcriptome Profiling of Developing Muring Lens Through RNA Sequencing.
Invest Ophthalmol Vis Sci. 2015 56(8), 4919-4926. PMID: 26225632.
[RNAseq data analysis]

- [Periz G, Lu J, Zhang T, Kankel MW, Jablonski AM, Kalb R, McCampbell A, and Wang J.](#)
Regulation of protein quality control by UBE4B and LSD1 through p53-mediated transcription.
PLoS Biology. DOI:10.1371/journal.pbio.1002114. PMID:25837623.
 [Affymetrix Human Gene 1.0ST array, data analysis]
- [Lee Y-S, Lehar A, Sebald S, Liu M, Swaggart KA, Talbot Jr CC, Pytel P, Barton ER, McNally EM, and Lee S-J.](#)
Muscle hypertrophy induced by myostatin inhibition accelerates degeneration in dysferlinopathy.
Hum. Mol. Genet. (2015). First published online: July 23, 2015. DOI: 10.1093/hmg/ddv228.
 [Affymetrix Mouse Exon 1.0ST and data analysis]
- [Clarke TH, Garb JE, Hayashi CY, Arensbarger P, and Ayoub NA.](#)
Spider Transcriptomes Identify Ancient Large-Scale Gene Duplication Event Potentially Important in Silk Gland Evolution.
Genome Biol Evol. 7(7), 1856-1870. DOI: 10.1093/gbe/evv110.
 [RNAseq library preparation]
- [Hosseini I, Gama L, Gabhann FM.](#)
Multiplexed component analysis to identify genes contributing to the immune response during acute SIV infection.
PLOS One. May 18, 2015. DOI: 10.1371/journal.pone.0126843
 [Nanostring nCounter Assay]
- [Guan H, Singh U, Singh N, Hao H, Nagarkatti P, and Nagarkatti M.](#)
Unique gut commensal bacteria in CD44 deficient mice can ameliorate experimental autoimmune encephalomyelitis (THER7P.943).
The Journal of Immunology. 194 (1 Supplement) 208.3.
 [16s rRNA gene metagenomic sequencing and data analysis]
- [Poirier JT, Gardner EE, Connis N, Moreira AL, de Stanchina E, Hann CL, and Rudin CM.](#)
DNA methylation in small cell lung cancer defines distinct disease subtypes and correlates with high expression of EZH2.
Oncogene Mar. 9, 2015.[Epub ahead of print] PMID: 25746006.
 [RNA and DNA extraction]
- [Foley K, Rucki AA, Xiao Q, Zhou D, Leubner A, Mo G, Kleponis J, Wu AA, Sharma R, Jiang Q, Anders RA, Iacobuzio-Donahue CA, Hajjar KA, Maitra A, Jaffee EM, and Zheng L.](#)
Semaphorin 3D autocrine signaling mediates the metastatic role of annexin A2 in pancreatic cancer.
Science Signaling 8(388), ra77. PMID:26243191.
 [Affymetrix mouse Exon 1.0ST]
- [Bazley FA, Liu CF, Yuan X, Hao H, All AH, De Los Angeles A, Zambidis ET, Gearhart JD, and Kerr CL.](#)
Direct Reprogramming of Human Primordial Germ Cells into Induced Pluripotent Stem Cells: Efficient Generation of Genetically Engineered Germ Cells.
Stem Cells and Development 24(22), 2634-2648. PMID:26154167.
 [Affymetrix Human U133 Plus 2.0 and data analysis]
- [Nelson AM, Reddy SK, Ratliff TS, Hossain MZ, Katseff AS, Zhu AS, Chang E, Resnik SR, Page C, Kim D, Whittam AJ, Miller LS, and Garza LA.](#)
dsRNA released by tissue damage activates TLR3 to drive skin regeneration.
Cell Stem Cell 17(2), 139-151. PMID: 26253200.
 [Affymetrix mouse Exon 1.0ST array and data analysis]

- [Ewing AD, Cacita A, Wood LD, Ma F, Xing D, Kim M-S, Manda SS, Abril G, Pereira G, Makohon-Moore A, Looijenga LHJ, Gillis AJM, Hruban RH, Anders RA, Romans KE, Pandey A, Iacobuzio-Donahue CA, Bogelstein B, Kinzler KW, Kazazian Jr HH, and Solyom S.](#)
Widespread somatic L1 retrotransposition occurs early during gastrointestinal cancer evolution.
Genome Research. 25:1-10.
 [Affymetrix SNP 6.0 and data analysis]
- [Liu S, Wang Y, Worley PF, Mattson MP, and Gaiano N.](#)
The canonical Notch pathway effector RBP-J regulates neuronal plasticity and expression of GABA transporters in hippocampal networks.
Hipposampus. 25(5), 670-678. PMID:25515406.
 [Mouse Gene 1.0ST]
- [Alder JK, Barkauskas CE, Limjunyawong N, Stanley SE, Kembou F, Tuder RM, Hogan BLM, Mitzner W, and Armanios M.](#)
Telomere dysfunction causes alveolar stem cell failure.
PNAS; 112(16), 5099-5104. PMID: 25840590.
 [Affymetrix mouse Exon 1.0ST]
- [Movita D, van de Garde MD, Biesta P, Kreeft K, Haagmans B, Zuniga E, Herschke F, De Jonghe S, Gama L, Boonstra A, and Vanwollegem T.](#)
Inflammatory monocytes recruited to the liver within 24 hours after virus-induced inflammation resemble Kupffer cells but are functionally distinct.
J. Virol. 89(9), 4809-4817. PMID:25673700.
 [Nanostring nCounter Assay]
- [Bol GM, Vesuna F, Xie M, Zeng J, Aziz K, Gandhi N, Levine A, Irving A, Korz D, Tantravedi S, Heerma van Voss MR, Gabrielson K, Bordt EA, Polster BM, Cope L, van der Groep P, Kondaskar A, Rudek MA, Hosmane RS, van der Wall E, van Diest PJ, Tran PT, Raman V.](#)
Targeting DDX3 with a small molecule inhibitor for lung cancer therapy.
EMBO Molecular Medicine. DOI 10.15252/emmm.201404368
 [Affymetrix Human Gene 1.0ST array]
- [Kouo T, Huang L, Pucsek AB, Cao M, Solt S, Armstrong T, and Jaffee E.](#)
Galectin-3 shapes antitumor immune responses by suppressing CD8⁺ T cells via LAG-3 and inhibiting expansion of plasmacytoid dendritic cells.
Cancer Immunol Res; 3(4), 412-423.
 [Affymetrix mouse Exon 1.0ST array and Nugen amplification]
- [Cai Y, Agmon N, Choi WJ, Ubide A, Stracquadanio G, Caravelli K, Hao H, Bader JS, and Boeke JD.](#)
Intrinsic biocontainment: Multiplex genome safeguards combine transcriptional and recombinational control of essential yeast genes.
PNAS January 26, 2015. Published online before print.
 doi:10.1073/pnas.1424704112
 [RNA isolation and RNAseq]
- [Deng K, Pertea M, Rongvaux A, Wang L, Durand CM, Gihaur G, Lai J, McHugh HL, Hao H, Zhang H, Margolick JB, Gurer C, Murphy AJ, Valenzuela DM, Yancopoulos GD, Deeks SG, Strowig T, Kumar P, Siliciano JD, Salzberg SL, Flavell RA, Shan L, and Siliciano RF.](#)
Broad CTL response is required to clear latent HIV-1 due to dominance of escape mutations.
Nature. 517, 381-385 (15 January 2015) doi:10.1038/nature14053.
 PMID:25561180
 [PacBio RS II sequencing and Illumina MiSeq Sequencing, Sequence alignment]

2014 (27/6)

- [Le A, Stine ZE, Nguyen C, Afzal J, Sun P, Hamaer M, Siegel NM, Gouw AM, Kang B-h, Yu S-H, Cochran RL, Sailor KA, Song H, and Dang CV.](#)
Tumorigenicity of hypoxic respiring cancer cells revealed by a hypoxia-cell cycle dual reporter.
Proc Natl Acad Sci USA. 2014 Aug 26; 111(34): 12486-91. DOI: 10.1073/pnas.1402012111. PMID: 25114222.
[Bioinformatic Analysis]
- [Yolken RH, Jones-Brando L, Dunigan DD, Kannan G, Dickerson F, Severance E, Sabunciyar S, Talbot CC Jr, Prandovszke E, Gurnon JR, Agarkova IV, Leister F, Gressitt KL, Chen O, Deuber B, Ma F, Pletnikov MV, and Van Etten JL.](#)
Chlorovirus ATCV-1 is part of the human oropharyngeal virome and is associated with changes in cognitive functions in humans and mice.
Proc. Natl. Acad. Sci. U.S.A. 2014. 111(45), 16106-11. PMID: 25349393.
[Affymetrix Mouse Exon 1.0ST array and data analysis]
- [Zhou Y and Nathans J.](#)
Gpr124 controls CNS angiogenesis and blood-brain barrier integrity by promoting ligand-specific canonical Wnt signaling.
Dev. Cell. 2014. 31(2): 248-256. PMID:25373781.
[RNAseq]
- [Nelson AC, Cutty SJ, Niini M, Stemple DL, Flicek P, Houart C, Bruce AEE, and Wardle FC.](#)
Global identification of Smad2 and Eomesodermin targets in zebrafish identifies a conserved transcriptional network in mesendoderm and a novel role for Eomesodermin in repression of ectodermal gene expression.
BMC Biology 2014. 12:81. PMID: 25277163.
[RNAseq and data analysis]
- [He X, Cao Y, Wang L, Han Y, Zhou G, Cai Y, Chang H, and Gao P.](#)
Human Fibroblast Reprogramming to Pluripotent Stem Cells Regulated by the miR19a/b-PTEN Axis.
PLoS ONE 9(4): e95213. DOI: 10.1371/journal.pone.0095213.
[Affymetrix miRNA 2.0 microarray]
- [Sun W, Gaykalova DA, Ochs MF, Mambo E, Arnaoutakis D, Liu Y, Loyo M, Agrawal N, Howard J, Li R, Ahn S, Fertig E, Sidransky D, Houghton J, Buddavarapu K, Sanford T, Choudhary A, Darden W, Adai A, Latham G, Bishop J, Sharma R, Westra WH, Hennessey P, Chung CH, and Califano JA.](#)
Activation of the NOTCH Pathway in Head and Neck Cancer.
Cancer Res. 74, 1091-1104. PMID: 24351288.
[Affymetrix SNP 6.0 and Human Exon 1.0ST]
- [Huang X, Shah S, Wang J, Ye Z, Doweiy SN, Tsang KM, Mendelsohn LG, Kato GJ, Kickler TS, and Cheng L.](#)
Extensive Ex Vivo Expansion of Functional Human Erythroid Precursors Established From Umbilical Cord Blood Cells by Defined Factors.
Molecular Therapy. 22(2), 451-463. PMID: 24002691.
[Affymetrix Human Gene 1.0ST array]
- [Guintivano J, Arad M, Gould TD, Payne JL, and Kaminsky ZA.](#)
Antenatal prediction of postpartum depression with blood DNA methylation biomarker.
Molecular Psychiatry. 19-560-567. PMID: 23689534.
[Affymetrix Mouse Tilling 1.0 array]
- [Lun S, Miranda D, Kubler A, Guo H, Maiga MC, Wingless K, Pelly S, and Bishai, WR.](#)

Synthetic lethality reveals mechanisms of *Mycobacterium tuberculosis* resistance to β -lactams.
mBio; 5(5):e01767-14. PMID: 25227469.

[RNAseq data analysis]

- [Masuda T, Zhang X, Berlinicke C, Wan J, Yerrabelli A, Conner EA, Kjellstrom S, Bush R, Thorgeirsson SS, Swaroop A, Chen S, and Zack DJ.](#)

The transcription factor GTF21RD1 regulates the topology and function of photoreceptors by modulating photoreceptor gene expression across the retina.

The Journal of Neuroscience; 34(46), 15356-15368.

doi:10.1523/JNEUROSCI.2089-14.2014.

[Affymetrix mouse Exon 1.0ST array]

- [Black CM, Armstrong TD, and Jaffee EM.](#)

Apoptosis-regulated low-avidity cancer-specific CD8⁺ T cells can be rescued to eliminate HER2/neu-expressing tumors by costimulatory agonists in tolerized mice.

Cancer Immunol Res; 2(4), 307-319.

[Affymetrix mouse Exon 1.0ST array and Nugen amplification]

- [Annaluru N, Muller H, Mitchell LA, Ramalingam S, Stracquadanio G, Richardson SM, Dymond JS, Kuang Z, Scheifele LZ, Cooper EM, Cai Y, Zeller K, Agmon N, Han JS, Hadjithomas M, Tullman J, Caravelli K, Cirelli K, Guo Z, London V, Yeluru A, Murugan S, Kandavelou K, Agier N, Fischer G, Yang K, Martin JA, Bilgel M, Bohutski P, Boulter KM, Capaldo BJ, Chang J, Charoen K, Choi WJ, Deng P, DiCarlo JE, Doong J, Dunn J, Feinberg JI, Fernandez C, Floria CE, Gladowski D, Hadidi P, Ishizuka I, Jabbari J, Lau CY, Lee PA, Li S, Lin D, Linder ME, Ling J, Liu J, Liu J, London M, Ma H, Mao J, McDade JE, McMillan A, Moore AM, Oh WC, Ouyang Y, Patel R, Paul M, Paulsen LC, Qiu J, Rhee A, Rubashkin MG, Soh IY, Sotuyo NE, Srinivas V, Suarez A, Wong A, Wong R, Xie WR, Xu Y, Yu AT, Koszul R, Bader JS, **Boeke JD**, and Chandrasegaran S.](#)

Total synthesis of a functional designer eukaryotic chromosome.

Science. 344(6179), 55-58. [PMCID: PMC4033833]

[DNaseq, RNAseq]

- [Pike A, Vadlamani A, Sandiford SL, Gacita A, and Dimopoulos G.](#)

Characterization of the Rel2-regulated transcriptome and proteome of *Anopheles stephensi* identifies new anti-*Plasmodium* factors.

Insect Biochem. Mol. Bio. 52, 82-93. PMID: 24998399.

[Array Scan]

- [Zhou Y, Wang Y, Tischfield M, Williams J, Smallwood PM, Rattner A, Taketo MM, and Nathans J.](#)

Canonical WNT signaling components in vascular development and barrier formation.

J. Clin. Invest. 124(9), 3825-46. PMID: 25083995.

[RNAseq]

- [Shamir ER, Pappalardo E, Jorgens DM, Coutinho K, Tsai W-T, Aziz K, Auer M, Tran PT, Bader JS, and Ewald AJ.](#)

Twist1-induced dissemination preserves epithelial identity and requires E-cadherin.

JCB. 204(5), 839-856. PMID:24590176.

[RNAseq]

- [Haney RA, Ayoub NA, Clarke TH, Hayashi CY and Garb JE.](#)

Dramatic expansion of the black widow toxin arsenal uncovered by multi-tissue transcriptomics and venom proteomics.

BMC Genomics. 15, 366. PMID:24916504.

[RNAseq library preparation]

- [Clarke TH, Garb JE, Hayashi CY, Haney RA, Lancaster AK, Corbett S, and Ayoub NA.](#)

Multi-tissue transcriptomics of the black widow spider reveals expansions, co-options, and functional processes of the silk gland gene toolkit.

BMC Genomics. 15, 365. PMID: 24916340.

[RNAseq library preparation]

- [Spivak JL, Considine M, Williams DM, Talbot Jr CC, Rogers O, Moliterno AR, Jie C, and Ochs MF.](#)

Two clinical phenotypes in polycythemia vera.

N Engl J Med 2014; 371:808-817. PMID: 25162887.

[Affymetrix U133A and data analysis]

- [Miskimon M, Han S, Lee JJ, Ringkamp M, Wilson MA, Petralia RS, Dong X, Worley PF, Baraban JM and Reti IM.](#)

Selective expression of Narp in primary nociceptive neurons: Role in microglia/macrophage activation following nerve injury.

J. Neuroimmunol. (2014)

[RNA QC]

- [Li R, Ochs MF, Ahn SM, Hennessey P, Tan M, Soudry E, Gaykalova DA, Uemura M, Brait M, Shao C, Westra W, Bishop J, Fertig EJ, and Califano, JA.](#)

Expression Microarray Analysis Reveals Alternative Splicing of LAMA3 and DST Genes in Head and Neck Squamous Cell Carcinoma.

PLoS One 9(3): e91263.

[Human Exon 1.0ST array]

- [Artyomenko A, Wu NC, Mangul S, Eskin E, Sun R, and Zelikovsky A.](#)

Reconstruction of Influenza A Virus Variants from PacBio Reads.

? 2014 IEEE

[PacBio RS Sequencing]

- [Bai B, Liu H, and Laiho M.](#)

Small RNA expression and deep sequencing analyses of the nucleolus reveal the presence of nucleolus-associated microRNAs.

FEBS Open Bio. (2014) 4, 441-449. PMID: 24918059.

[Ncode miRNA Microarray]

- [Meulendyke KA, Ubaida-Mohien C, Drewes JL, Liao Z, Gama L, Witwer KW, Graham DR, and Zink MC.](#)

Elevated Brain Monoamine Oxidase Activity in SIV- and HIV-associated Neurological Disease.

J. Infect Dis. (2014). doi: 10.1093/infdis/jiu194. PMID: 24688074.

[Nanostring]

- [Mahairaki V, Ryu J, Peters A, Chang Q, Li T, Park TS, Burridge PW, Conover Talbot Jr C, Asnaghi L, Martin LJ, Zambidis ET, and Koliatsos VE.](#)

Induced Pluripotent Stem Cells from Familial Alzheimer's Disease Patients Differentiate into Mature Neurons with Amyloidogenic Properties.

Stem Cells Dev. [Epub ahead of print] (2014) PMID:25027006.

[data analysis]

- [Wu H, Luo J, Yu H, Rattner A, Mo A, Wang Y, Smallwood PM, Erlanger B, Wheelan SJ, Nathans J.](#)

Cellular Resolution Maps of X Chromosome Inactivation: Implications for Neural Development, Function, and Disease.

Neuron 81(1), 103-119.

[Nugen RNAseq V2]

- [Yeo AS, Azhar NA, Yeow W, Talbot CC Jr, Khan MA, Shankar EM, Rathakrishnan A, Azizan A, Wang SM, Lee SK, Fong MY, Manikam R, Sekaran SD.](#)

Lack of clinical manifestations in asymptomatic dengue infection is attributed to broad down-

regulation and selective up-regulation of host defence response genes.

PLoS One 9(4): e92240

[data analysis]

- [Xiao J, Li Y, Prandovszky E, Karuppagounder SS, Talbot CC Jr, Dawson VL, Dawson TM, Yolken RH.](#)

MicroRNA-132 dysregulation in toxoplasma gondii infection has implications for dopamine signaling pathway.

Neuroscience, 268, 128-138.

[Affymetrix miRNA 2.0 array and data analysis]

2013 (22/3)

- [Haberman RP, Colantuoni C, Koh MT, and Gallagher M.](#)

Behaviorally activated mRNA expression profiles produce signatures of learning and enhanced inhibition in aged rats with preserved memory.

PLoS One. 2013. 8(12):e83674. DOI: 10.1371/journal.pone.0083674. PMID: 24349543.

[Affymetrix Rat Genome 230 2.0 array]

- [Fertig EJ, Markovic A, Danilova LV, Gaykalova DA, Cope L, Chung CH, Ochs MF, and Califano JA.](#)

Preferential Activation of the Hedgehog Pathway by Epigenetic Modulations in HPV Negative HNSCC Identified with Meta-Pathway Analysis.

PLoS One. 2013; 8(11):e78127. PMID: 24223768.

[Affymetrix Human Exon 1.0ST array]

- [Gerber JM, Gucwa JL, Esopi D, Gurel M, Haffner MC, Vala M, Nelson WG, Jons RJ, and Yegnasubramanian S.](#)

Genome-wide comparison of the transcriptomes of highly enriched normal and chronic myeloid leukemia stem and progenitor cell populations.

Oncotarget. 4(5), 715-728. PMID: 23651669.

[Affymetrix Human Exon 1.0ST]

- [Sim S, Jupatanakul N, Ramirez JL, Kang S, Romero-Vivas CM, Mohammed H, and Dimopoulos G.](#)

Transcriptomic Profiling of Diverse *Aedes aegypti* Strains Reveals Increased Basal-level Immune Activation in Dengue Virus-refractory Populations and Identifies Novel Virus-vector Molecular Interactions.

PLoS Negl. Trop. Dis. 7(7), e2295. PMID:23861987.

[Array Scan]

- [Kulkarni P.](#)

A Multiplex Cancer/Testis Antigen-Based Biomarker Panel to Predict the Aggressive Phenotype of Prostate Cancer.

Annual rept. 30-Sep2012-29 Sep 2013. ADA590492.

[Nanostring]

- [Brebi P, Maldonado L, Noordhuis MG, Ili C, Leal P, Garcia P, Brait M, Ribas J, Michailidi C, Perez J, Soudry E, Tapia O, Guzman P, Muñoz S, Van Neste L, Van Criekinge W, Irizarry R, Sidransky D, Roa JC, Guerrero-Preston R.](#)

Genome-wide methylation profiling reveals Zinc finger protein 516 (ZNF516) and FK-506-binding protein 6 (FKBP6) promoters frequently methylated in cervical neoplasia, associated with HPV status and ethnicity in a Chilean population.

Epigenetics, 9(2),308-317.

[data analysis]

- Ho Y-C, Shan L, Hosmane NN, Wang J, Laskey SB, Rosenbloom DIS, Lai J, Blankson JN, Siliciano JD, and Siliciano RF.*
Replication-competent noninduced proviruses in the latent reservoir increase barrier to HIV-1 cure.
Cell 155(3), 540-551.
[PacBio RS Sequencing: amplicon sequencing and Circular Consensus Sequencing]
- Xin X, Rodrigues M, Umapathis M, Kashiwabuchi F, Ma T, Babapoor-Farrokhran S, Wang S, Hu J, Bhutto I, Welsbie DS, Juh EJ, Handa JT, Eberhart CG, Luty G, Semenza GL, Montaner S, and Sodhi A.*
Hypoxic retinal Müller cells promote vascular permeability by HIF-1-dependent up-regulation of angiopoietin-like 4.
PNAS, 110(36), E3425-E3434.
[Human Gene 1.0ST GeneChips]
- Donnelly CJ, Zhang P-W, Pham JT, Haeusler AR, Mistry NA, Vidensky S, Daley EL, Poth EM, Hoover B, Fines DM, Maragakis N, Tienary PJ, Petrucelli L, Traynor BJ, Wang J, Rigo F, Bennett CF, Blackshaw S, Sattler R, and Rothstein JD.*
RNA Toxicity from the ALS/FTD C9ORF72 Expansion Is Mitigated by Antisense Intervention.
Neuron, 80(2), 415-428.
[Human Exon 1.0ST GeneChips and Nanostring Assay]
- Huang X, Shah S, Wang J, Ye Z, Doweiy SN, Tsang KM, Mendelsohn LG, Kato GJ, Kickler TS, and Cheng L.*
Extensive Ex Vivo Expansion of Functional Human Erythroid Precursors Established From Umbilical Cord Blood Cells by Defined Factors.
Molecular Therapy advance online publication 15 October 2013;
doi:10.1038/mt.2013.201.
[Human Gene 1.0ST GeneChip]
- Rattner A, Yu H, Williams J, Smallwood PM, Nathans J.*
Endothelin-2 signaling in the neural retina promotes the endothelial tip cell state and inhibits angiogenesis.
PNAS 2013 110:E3830-E3839.
[RNAseq, Affymetrix Mouse 430 2.0 microarray]
- Russell JN, Clements JE, Gama L.*
Quantitation of Gene Expression in Formaldehyde-Fixed and Fluorescence-Activated Sorted Cells.
PLoS One 2013, 8(9): e73849.
[NanoString Assay]
- Demokan S, Chuang AY, Chang X, Khan T, Smith IM, Pattani KM, Dsgupta S, Begum S, Khan Z, Liegeois NJ, Westra WH, Sidransky D, Koch W, and Califano JA.*
Identification of guanine nucleotide-binding protein γ -7 as an epigenetically silenced gene in head and neck cancer by gene expression profiling.
Int. J. Oncol. 2013; 42(4), 1427-1436.
[Affymetrix Human U133 Plus 2.0 array]
- Yan G, Eller MS, Elm C, Larocca CA, Ryu B, Panova IP, Dancy BM, Bowers EM, Meyers D, Lareau L, Cole PA, Taverna SD, and Alani RM.*
Selective inhibition of p300 HAT blocks cell cycle progression, induces cellular senescence, and inhibits the DNA damage response in melanoma cells.
J. Invest. Dermat. 2013; advance online publication 23 May, 2013; DOI:

10.1038/jid.2013.187

[Affymetrix Human Exon 1.0ST array]

- [Guintivano J, Arad M, Gould TD, Payne JL, and Kaminsky ZA.](#)
Antenatal prediction of postpartum depression with blood DNA methylation biomarkers.
Mol. Psychiatry. 2013. Advanced online publication 21 May 2013: doi: 10.1038/mp.2013.62.
[Affymetrix mouse promoter 1.0R array]
- [Garcia TA, Ventura CL, Smith MA, Merrell DS, and O'Brien AD.](#)
Cytotoxic Necrotizing Factor 1 and Hemolysin from Uropathogenic Escherichia coli Elicit Different Host Responses in the Murine Bladder.
Infect. Immun. 2013; 81(1), 99-109. DOI: 10.1128/IAI.00605-12
[Agilent 4X44k mouse whole genome array]
- [Guan H, Fan D, Mrelashvili D, Hao H, Singh NP, Singh UP, Nagarkatti PS, and Nagarkatti M.](#)
MicroRNA let-7e is associated with the pathogenesis of experimental autoimmune encephalomyelitis.
Eur. J. Immunol. 2013; 43, 104-114. DOI: 10.1002/eji.201242702
[miRNA array, data analysis]
- [Mor E, Kano S-I, Cloantuoni C, Sawa A, Navon R, and Shomron N.](#)
MicroRNA-382 expression is elevated in the olfactory neuroepithelium of schizophrenia patients.
Neurobiology of Disease. 2013 55, 1-10.
[Human U133 Plus 2.0 array]
- [Kondo MA, Tajinda K, Colantuoni C, Hiyama H, Seshadri S, Huang B, Pou S, Furukori K, Hookway C, Jaaro-Peled H, Kano S-I, Matsuoka N, Harada K, Ni K, Pevsner J, and Sawa A.](#)
Unique pharmacological actions of atypical neuroleptic quetiapine: possible role in cell cycle/fate control.
Transl. Psychia. 2013 3,e243.
[Mouse MOE 430 2.0 array]
- [Chen H, Wang N, Zhao X, Ross CA, O'Shea KS, and Mclnnis MG.](#)
Gene Expression alterations in bipolar disorder postmortem brains.
Bipolar Disorders. 2013 15(2), 177-187.
[Human U133 Plus 2.0 array]
- [Shah SN, Cope L, Poh W, Belton A, Roy S, Talbot Jr CC, Sukuar S, Huso DL, and Resar LM.](#)
HMGA1: a master regulator of tumor progression in triple-negative breast cancer cells.
PLoS ONE, 8(5): e63419. doi 10.1371/journal.pone.0063419.
[Human Exon 1.0ST array, data analysis]
- [Matthaei M, Hu J, Meng H, Lackner E-M, Eberhart CG, Qian J, Hao H, and Jun AS.](#)
Endothelial cell whole genome expression analysis in a mouse model of early-onset Fuchs' endothelial corneal dystrophy.
IOVS. 54, 1931-1940.
[Mouse Exon 1.0ST array, data analysis]

2012 (20/7)

- [Menezes LF, Zhou F, Patterson AD, Piontek KB, Krausz KW, Gonzalez FJ, and Germino GG.](#)
Network analysis of a Pkd1-mouse model of autosomal dominant polycystic kidney disease

identifies HNF4 α as a disease modifier.

PLoS Genet. 2012. 8(11): e1003053. DOI: 10.1371/journal.pgen.1003053. PMID: 23209428.

[Agilent Mouse miRNA array]

- [Pattani KM, Soudry E, Glazer CA, Ochs MF, Wang H, Schussel J, Sun W, Hennessey P, Mydlarz W, Loyo M, Demokan S, Smith IM, and Califano JA.](#)
MAGEB2 is activated by promoter demethylation in head and neck squamous cell carcinoma.
PLoS One. 2012. 7(9): e45534. DOI: 10.1371/journal.pone.0045534. PMID: 23029077.
[Affymetrix Human U133 Plus 2.0]
- [Hu L, Gocke AR, Knapp E, Rosenzweig JM, Grishkan IV, Baxi EG, Zhang H, Margolick JB, Whartenby KA, and Calabresi PA.](#)
Functional blockade of the voltage-gated potassium channel Kv1.3 mediates reversion of T effector to central memory lymphocytes through SMAD3/p21cip1 signaling.
J. Biol. Chem. 2012. 287(2): 1261-8. DOI: 10.1074/jbc.M111.296798. PMID: 22110135.
[Affymetrix Human U133 Plus 2.0 array and data analysis]
- [Starrett JR.](#)
Molecular Evolution of Silk Genes in Mesothela and Mygalomorph Spiders, With Implications for the Early Evolution and Functional Divergence of Silk.
Ph.D. Dissertation, University of California Riverside.
[RNAseq library preparation]
- [Shah T, Stasinopoulos I, Wildes F, Kakkad S, Artemov D, and Bhujwala ZM.](#)
Noninvasive imaging identifies new roles for cyclooxygenase-2 in choline and lipid metabolism of human breast cancer cells.
NMR in Biomed. 2012 25(5), 746-754.
[Human U133 Plus 2.0 array]
- [Yu H, Ye X, Guo N, and Nathans J.](#)
Frizzled 2 and frizzled 7 function redundantly in convergent extension and closure of the ventricular septum and palate: evidence for a network of interacting genes.
Development. 139, 4383-4394.
[Mouse MOE 430 2.0 array]
- [Gardner EJ, Nizami ZF, Talbot Jr. CC, and Gall JG.](#)
Stable intronic sequence RNA (sisRNA), a new class of noncoding RNA from the oocyte nucleus of *Xenopus tropicalis*.
Genes & Dev. 2012. 26, 2550-2559.
[RNAseq, *Xenopus tropicalis* Genome array, data analysis]
- [Maeda Y, Tsuchiya T, Hao H, Tompkins DH, Xu Y, Mucenski ML, Du L, Keiser AR, Fukazawa T, Naomoto Y, Nagayasu T, and Whitsett JA.](#)
***Kras*^{G12D} and *Nkx2-1* haploinsufficiency induce mucinous adenocarcinoma of the lung.**
J. Clin. Invest. 2012 Nov 12. pii: 64048. doi: 10.1172/JCI64048. [Epub ahead of print].
[ChIPseq, data analysis]
- [Dasgupta S, Jang JS, Shao C, Mukhopadhyay ND, Sokhi UK, Das SK, Brait M, Talbot Jr. CC, Yung RC, Begum S, Westra WH, Hoque MO, Ping Y, Yi JE, Lam S, Gazdar AF, Fisher PB, Jen J, and Sidransky D.](#)
SH3GL2 is frequently deleted in non-small cell lung cancer and downregulates tumor growth by modulating EGFR signaling.
J. Mol. Med. 2012 Sep 12. [Epub ahead of print]
[Mapping 500K array, data analysis]

- [Park TS, Huo JS, Peters A, Talbot Jr. CC, Verma K, Zimmerlin L, Kaplan IM, and Zambidis ET.](#)
Growth factor-activated stem cell circuits and stromal signals cooperatively accelerate non-integrated iPSC reprogramming of human myeloid progenitors.
PLoS One 7(8): e42838. doi:10.1371/journal.pone.0042838.
 [data analysis]
- [Haberman RP, Quigley CK, and Gallagher M.](#)
Characterization of CpG island DNA methylation of impairment-related genes in a rat model of cognitive aging.
Epigenetics 2012, 7(9), 1-12.
 [Rat 230 2.0 array]
- [Munshaw S, Hwang HS, Torbenson M, Quinn J, Hansen KD, Astemborski J, Mehta SH, Ray SC, Thomas DL, and Galagopal A.](#)
Laser captured hepatocytes show association of butyrylcholinesterase gene loss and fibrosis progression in hepatitis C-infected drug users.
Hepatology. 2012, 56(2), 544-554.
 [Human U133 Plus 2.0 array]
- [Pashai N, Hao H, All A, Gupta S, Chaerkady R, De Los Angeles A, Gearhart JD, and Kerr CL.](#)
Genome-wide profiling of pluripotent cells reveals a unique molecular signature of human embryonic germ cells.
PLoS One 2012, 7(6): e39088. doi:10.1371/journal.pone.0039088
 [Human U133 Plus 2.0 array, data analysis]
- [Cooper CL, Hardy RR, Reth M, and Desiderio S.](#)
Non-cell-autonomous hedgehog signaling promotes murine B lymphopoiesis from hematopoietic progenitors.
Blood. 2012 119(23), 5438-5448.
 [Mouse Exon 1.0ST array]
- [Tang HL, Tang HM, Mak KH, Hu S, Wang SS, Wong KM, Wong CST, Wu HY, Law HT, Liu K, Talbot Jr CC, Lau WK, Montell DJ, and Fung MC.](#)
Cell Survival, DNA Damage and Oncogenic Transformation Following a Transient and Reversible Apoptotic Response.
Mol. Biol. Cell. 23(12), 2240-2252. doi:10.1091/mbc.E11-11-0926.
 [data analysis]
- [Zhang T, Hwang H-Y, Hao H, Talbot Jr C, and Wang J.](#)
***Caenorhabditis elegans* RNA-processing protein TDP-1 regulates protein homeostasis and life span.**
JBC 2012, 287, 8371-8382. doi: 10.1074/jbc.M111.311977
 [C. elegans Genome array, data analysis]
- [Witwer KW, Watson AK, Blankson JN, and Clements JE.](#)
Relationships of PBMC MicroRNA Expression, Plasma Viral Load, and CD4⁺ T-Cell Count in HIV-1-infected Elite Suppressors and Viremic Patients.
Retrovirology 2012, 9(1), 5.
 [Nanostring miRNA assay]
- [Gama L, Shirk EN, Russell JN, Carvalho KI, Li M, Queen SE, Kalil J, Zink MC, Clements JE, and Kallas EG.](#)
Expansion of a Subset of CD14^{high}CD16^{neg}CCR2^{low/neg} Monocytes Functionally Similar to Myeloid-derived Suppressor Cells During SIV and HIV Infection.
J. Leukoc. Biol. 91(5), 803-816.
 [NanoString Gene Expression assay]

- [Dasgupta S, Soudry E, Mukhopadhyay N, Shao C, Yee J, Lam S, Lam W, Zhang W, Gazdar AF, Fisher PB, and Sidransky D.](#)
Mitochondrial DNA Mutations in Respiratory Complex-1 in Never-Smoker Lung Cancer Patients Contribute to Lung Cancer Progression and Associated with EGFR Gene Mutation.
J. Cell. Physiol. 2012, 227(6), 2451-2460.
[Mito Chip]
- [Sim S, Ramirez JL, and Dimopoulos G.](#)
Dengue Virus Infection of the *Aedes aegypti* Salivary Gland and Chemosensory Apparatus Induces Genes that Modulate Infection and Blood-Feeding Behavior.
PLoS Pathog. 2012, 8(3), e1002631.
[Agilent 4X44K Gene Expression array scan]

2011 (40/15)

- [Shao C, Sun W, Tan M, Glazer CA, Bhan S, Zhong X, Fakhry C, Sharma R, Westra WH, Hoque MO, Moskaluk CA, Sidransky D, Califano JA, and Ha PK.](#)
Integrated, genome-wide screening for hypomethylated oncogenes in salivary gland adenoid cystic carcinoma.
Clin. Cancer Res. 2011. 17(13): 4320-30. DOI: 10.1158/1078-0432.CCR-10-2992. PMID: 21551254.
[Affymetrix Human U133 Plus 2.0 array]
- [Kim Y, Sharov AA, McDole K, Cheng M, Hao H, Fan C-M, Gaiano N, Ko MSH, Zheng Y.](#)
Mouse B-Type Lamins Are Required for Proper Organogenesis But Not by Embryonic Stem Cells.
Science. 2011 Dec 23; 334(6063), 1706-1710. [DOI: 10.1126/science.1211222]
[Nimblegen aCGH array]
- [Schuldenfrei A, Belton A, Kowalski J, Talbot Jr CC, Di Cello F, Poh W, Tsai HL, Shah SN, Huso TH, Huso DL, Resar LM.](#)
HMGA1 Drives Stem Cell, Inflammatory Pathways, and Cell Cycle Progression Genes During Lymphoid Tumorigenesis.
BMC Genomics. 2011, 12: 549
[Affymetrix mouse 430 2.0 array and data analysis]
- [Creamer TJ, Darby MM, Jamonnak N, Schaughency P, Hao H, Wheelan SJ, Corden J.](#)
Transcriptome-Wide Binding Sites for Components of the *Saccharomyces cerevisiae* Non-Poly(A) Termination Pathway: Nrd1, Nab3, and Sen1.
PLoS Genet. 2011, 7(10): e1002329. doi:10.1371/journal.pgen.1002329
[Agilent aCGH/ChIP-on-chip arrays and data analysis]
- [Guo C, Gerasimova T, Hao H, Ivanova I, Chakraborty T, Selimyan R, Oltz EM, Sen R.](#)
Two Forms of Loops Generate the Chromatin Conformation of the Immunoglobulin Heavy-Chain Locus.
Cell, 2011 (DOI:10.1016/j.cell.2011.08.049)
[Affymetrix mouse Tiling 2.0R array and data analysis]
- [Arnaoutakis GJ, George TJ, Wang KK, Wilson MA, Allen JG, Robinson CW, Haggerty KA, Weiss ES, Blue ME, Talbot Jr CC, Troncoso JC, Johnston MV, Baumgartner WA](#)
Serum Levels of neuron-specific ubiquitin carboxyl-terminal esterase-L1 predict brain injury in a canine model of hypothermic circulatory arrest.

- J Thorac Cardiovasc Surg* 2011. 142(4):902-910.e1.
[Agilent Custom Canine Gene Expression Array]
- *Calvi CL, Podowski M, D'Alessio FR, Metzger SL, Misono K, Poonyagariyagorn H, Lopez-Mercado A, Ku T, Lauer T, Cheadie C, Talbot Jr CC, Jie C, McGrath-Morrow S, King LS, Walston J, Neptune ER.*
Critical Transition in Tissue Homeostasis Accompanies Murine Lung Senescence.
PLoS One 2011. 6(6):e20712
[Data Analysis]
 - *Xiao Z, Mohamood AD, Uddin S, Gutfreund R, Nakata C, Marchall A, Kimura H, Caturegli P, Womer KL, Huang Y, Jie C, Chakravarti S, Schneck JP, Yagita H, Hamad AR.*
Inhibition of Fas ligand in NOD mice unmask a protective role for IL-10 against insulinitis development.
Am. J. Pathol. 2011, 179(2), 725-732.
[Data Analysis]
 - *Hyland EM, Molina H, Poorey K, Jie C, Dai J, Qian J, Bekiranov S, Auble DT, Pandey A, Boeke JD.*
An evolutionarily 'young' lysine residue in histone H3 attenuates transcriptional output in *Saccharomyces cerevisiae*.
Genes Dev. 2011, 25(12), 1306-1319.
[Affymetrix GeneChip Yeast Genome 2.0 array and data analysis]
 - *Huang Y, Chuang A, Hao H, Talbot C, Sen T, Trink B, Sidransky D, Ratovitski E.*
Phosph- Δ Np63 α is a key regulator of the cisplatin-induced microRNAome in cancer cells.
Cell Death Differ. 2011. 18, 1220-1230 [PMID:21274007]
[Combimatrix miRNA array and data analysis]
 - *Xiao J, Jones-Brando L, Talbot Jr CC, Yolken RH.*
Differential Effects of Three Canonical Toxoplasma Strains on Gene Expression in Human Neuroepithelial cells.
Infect Immun 2011. 79(3):1363-1373.
[Affymetrix Human Exon 1.0ST array and data analysis]
 - *Halper-Stromberg E, Frelin L, Ruczinski I, Scharpf R, Jie C, Carvalho B, Hao H, Hetrick K, Jedlicka A, Dziedzic A, Doheny K, Scott AF, Baylin S, Pevsner J, Spencer F, and Irizarry RA.*
Performance assessment of copy number microarray platforms using a spike-in experiment.
Bioinformatics. 2011. 27(8), 1052-1060.
[Agilent aCGH array]
 - *Yang Y, Vidensky S, Jin L, Jie C, Lorenzini I, Frankl M, Rothstein JD.*
Molecular comparison of GLT1+ and ALDH1L1+ astrocytes in vivo in astroglial reporter mice.
Glia. 2011. 59(2), 200-207.
[Affymetrix Mouse Exon 1.0ST array and data analysis]
 - *Dalai SK, Khoruzhenko S, Drake CG, Jie CC, Sadegh-Nasseri S.*
Resolution of infection promotes a state of dormance and long survival of CD4 memory T cell.
Immunol Cell Biol. 2011. 89(8), 870-881.
[Affymetrix Mouse Genome 430 2.0 array and data analysis]
 - *Loyo M, Brait M, Kim MS, Ostrow KL, Jie CC, Chuang AV, Califano JA, Liegeois NJ, Begum S, Westra WH, Hoque MO, Tao Q, Sidransky D.*
A survey of methylated candidate tumor suppressor genes in nasopharyngeal carcinoma.
Int J Cancer. 2011. 128(6), 1393-1403.
[data analysis]
 - *Ying M, Sang Y, Li Y, Guerrero-Cazares H, Quinone-Hinojosa A, Vescovi AL, Eberhart CG, Xia S, Laterra J.*

- Krüppel-Like Family of Transcription Factor 9, a Differentiation-Associated Transcription Factor, Suppresses Notch1 Signaling and Inhibits Glioblastoma-Initiating Stem Cells.**
Stem Cells 2011. 29(1), 20-31.
 [Affymetrix Human Exon 1.0ST array]
- [Ying M, Wang S, Sang Y, Sun P, Lal B, Goodwin CR, Guerrero-Cazares H, Quinones-Hinojosa A, Laterra J, and Xia S.](#)
Regulation of Glioblastoma Stem Cells By Retinoid Acid: Role for Notch Pathway Inhibition.
Oncogene 2011. 30, 3453-3467.
 [Affymetrix Human Exon 1.0ST array]
 - [Dymond JS, Richardson SM, Coobles CE, Babatz T, Muller H, Annalurus N, Blake WJ, Schwerzmann JW, Dai J, Lindstrom DL, Boeke AC, Gottschling DE, Chandrasegaran S, Bader JS, and Boeke JD.](#)
Synthetic Chromosome Arms Function in Yeast and Generate Phenotypic Diversity By Design.
Nature 2011. 477,471-476.
 [Affymetrix Yeast Genome 2.0 array]
 - [Chung SY, Chavez C, and Andrew DJ.](#)
Tracheless (Trh) Regulates All Tracheal Genes During Drosophila Embryogenesis.
Developmental Biology 2011. 360(1), 160-172.
 [Affymetrix Drosophila Genome 2.0 array]
 - [Guo N, Parry EM, Li L-S, Kembou F, Lauder N, Hussain MA, Berggren P-O, and Armanios M.](#)
Short Telomeres Compromise β -Cell Signaling and Survival.
PLoS One 2011. 6(3), e17858.
 [Affymetrix Mouse Exon 1.0ST array]
 - [Haberman RP, Colantuoni C, Stocker AM, Schmidt AC, Pedersen JT, and Gallagher M.](#)
Prominent Hippocampal CA3 Gene Expression Profile in Neurocognitive Aging.
Neurobiology of Aging 2011. 32(9), 1678-1692.
 [Affymetrix Rat Genome 230 2.0 array]
 - [Ji H, Wu G, Zhan X, Nolan A, Koh C, Marzo AD, Doan HM, Fan J, Cheadle C, Fallahi M, Cleveland JL, Dang CV, and Zeller KI.](#)
Cell-Type Independent MYC Target Genes Reveal a Primordial Signature Involved in Biomass Accumulation.
PLoS One. 2011. 6(10), e26057.
 [Affymetrix Human Genome U133 Plus 2.0 array, Affymetrix Human Exon 1.0ST array, and Agilent Human Genome 44K microarray]
 - [Yegnasubramanian S, Wu Z, Haffner MC, Esopi D, Aryee MJ, Badrinath R, He TL, Morgan JD, Carvalho B, Zheng Q, De Marzo AM, Irizarry RA, and Nelson WG.](#)
Chromosome-Wide Mapping of DNA Methylation Patterns in Normal and Malignant Prostate Cells Reveals Pervasive Methylation of Gene-Associated and Conserved Intergenic Sequences.
BMC Genomics. 2011. 12, 313.
 [Affymetrix Human Tiling array 1.0R]
 - [Heidecker B, Kittleson MM, Kasper EK, Wittstein IS, Champion HC, Russell SD, Hruban RH, Rodriguez ER, Baughman KL, and Hare JM.](#)
Transcriptomic Biomarkers for the Accurate Diagnosis of Myocarditis.
Circulation. 2011. 123, 1174-1184.
 [Human U133 Plus 2.0 array]
 - [Guo JU, Ma DK, Mo H, Ball MP, Jang M-H, Bonaguidi MA, Balazer JA, Eaves HL, Xie B, Ford E, Zhang K, Ming G-L, Gao Y, and Song H.](#)
Neuronal Activity Modifies the DNA Methylation Landscape in the Adult Brain.

- Nat. Neurosci.* 2011. 14(10), 1345-1351.
[Mouse Exon 1.0ST array]
- [Tootle TL, Williams D, Hubb A, Frederick R, and Spradling A.](#)
Drosophila Eggshell Production: Identification of New Genes and Coordination by Pxt.
PLoS One. 2011. 6(5), e19943.
[Affymetrix Drosophila Genome 2.0 array]
 - [Stine MJ, Wang CJ, Morarty WF, Ryu B, Cheong R, Westra WH, Levchenko A, and Alani RM.](#)
Integration of Genotypic and Phenotypic Screening Reveals Molecular Mediators of Melanoma-Stromal Interaction.
Cancer Res. 2011. 71(7), 2433-2444.
[Affymetrix Human Genome U133 Plus 2.0 array]
 - [McCall MN, Kent OA, Yu J, Fox-Talbot K, Zaiman AL, and Halushka MK.](#)
MicroRNA Profiling of Diverse Endothelial Cell Types.
BMC Med. Genomics. 2011. 4, 78.
[Agilent Human miRNA v3 array]
 - [Guo T, Mandai K, Condie BG, Wickramasinghe SR, Capecchi MR, and Ginty DD.](#)
An Evolving NGF-Hoxd1 Signaling Pathway Mediates Development of Divergent Neural Circuits in Vertebrates.
Nat. Neurosci. 2011. 14(1), 31-36.
[Affymetrix Mouse Genome 430 2.0 array]
 - [Ye X, Wang Y, Rattner A, and Nathans J.](#)
Genetic Mosaic Analysis Reveals a Major Role for frizzled 4 and frizzled 8 in Controlling Ureteric Growth in the Developing Kidney.
Development. 2011. 138(6), 1161-1172.
[Affymetrix Mouse Genome 430 2.0 array]
 - [Guerrero-Preston R, Soudry E, Acero J, Orera M, Moreno-López L, Macía-Colón G, Jaffe A, Berdasco M, Ili-Gangas C, Brebi-Mieville P, Fu Y, Engstrom C, Irizarry RA, Esteller M, Westra W, Koch W, Califano J, and Sidransky D.](#)
NID2 and HOXA9 Promoter Hypermethylation as Biomarkers for Prevention and Early Detection in Oral Cavity Squamous Cell Carcinoma Tissues and Saliva.
Cancer Prev. Res. 2011. 4, 1061.
[data analysis]
 - [Wan J, Masuda T, Hackler Jr L, Torres KM, Merbs SL, Zack DJ, and Qian J.](#)
Dynamic Usage of Alternative Splicing Exons During Mouse Retina Development.
Nucl. Acids Res. 2011. 39(18), 7920-7930.
[Affymetrix Mouse Exon 1.0ST array]
 - [De Melo J, Peng G-H, Chen S, and Blackshaw S.](#)
The Spalt Family Transcription Factor Sall3 Regulates the Development of Cone Photoreceptors and Retinal Horizontal Interneurons.
Development. 2011. 138(11), 2325-2336.
[Affymetrix Mouse Exon 1.0ST array]
 - [Mithani SK, Smith IM, and Califano JA.](#)
Use of Integrative Epigenetic and Cytogenetic Analyses to Identify Novel Tumor-Suppressor Genes in Malignant Melanoma.
Melanoma Res. 2011. 21(4), 298-307.
[Affymetrix Human Genome U133 array hybridization and scan]
 - [Garrido-Laguna I, Uson M, Rajeshkumar NV, Tan AC, De Oliveira E, Karikari C, Villaroel MC, Salomon A, Taylor G, Sharma R, Hruban RH, Maitra A, Laheru D, Rubiio-Viqueira B, Jimeno A, and Hidalgo M.](#)

- Tumor Engraftment in Nude Mice and Enrichment in Stroma-Related Gene Pathways Predict Poor Survival and Resistance to Gemcitabine in Patients with Pancreatic Cancer.**
Clin. Cancer Res. 2011. 17(17),5793-5800.
 [Affymetrix Human Genome U133 Plus 2.0 array]
- [Peltonen K, Colis L, Liu H, Jäämaa S, Moore HM, Enbäck J, Laakkonen P, Vahtokari A, Jones RJ, af Hällström TM, and Laiho M.](#)
Identification of Novel p53 Pathway Activating Small-Molecule Compounds Reveals Unexpected Similarities with Known Therapeutic Agents.
PLoS One. 2011. 5(9), e12996.
 [Affymetrix Human Genome U133 Plus 2.0 array]
 - [LeBron C, Pal P, Brait M, Dasgupta S, Guerrero-Preston R, Looijenga LHJ, Kowalski J, Netto G, and Hoque M.](#)
Genome-Wide Analysis of Genetic Alterations in Testicular Primary Seminoma Using High Resolution Single Nucleotide Polymorphism Arrays.
Genomics. 2011. 97(6), 341-349.
 [Affymetrix 250k Nsp1 SNP array]
 - [Dasgupta S, Shao C, Keane TE, Duberow DP, Mathies RA, Fisher PB, Kiemneney LA, and Sidransky D.](#)
Detection of Mitochondrial Deoxyribonucleic Acid Alterations in Urine from Urothelial Cell Carcinoma Patients.
Intern. J. Cancer. 2011. DOI:10.1002/ijc.26357 [Epub ahead of print].
 [Affymetrix Mitochip 2.0]
 - [Dasgupta S, Koch R, Westra WH, Califano JA, Ha PK, Sidransky D, and Kock WM.](#)
Mitochondrial DNA Mutation in Normal Margins and Tumors of Recurrent Head and Neck Squamous Cell Carcinoma Patients.
Cancer Prev Res. 2011. 3(9), 1205-1211.
 [Affymetrix Mitochip 2.0]
 - [Ying M, Sang Y, Guerrero-Cazares H, Quinones-Hinojosa A, Vescovi AL, Eberhart CG, Xia S, and Laterra J.](#)
KLF9, a differentiation-associated transcription factor, suppresses Notch1 signaling and inhibits glioblastoma-initiating stem cells.
Stem Cells. 2011 29(10), 20-31.
 [Affymetrix Human Exon 1.0ST array]

2010 (21/6)

- [Lau WM, Weber KL, Doucet M, Chou YT, Brady K, Kowalski J, Tsai HL, Yang J, and Kominsky SL.](#)
Identification of prospective factors promoting osteotropism in breast cancer: a potential role for CITED2.
Int. J. Cancer. 2010. 126(4): 876-84. DOI: 10.1002/ijc.24780. PMID: 19642106.
 [Affymetrix Mouse Genome MOE 430 2.0 array]
- [Kang TH, Noh KH, Kim JH, Bae HC, Lin KY, Monie A, Pai SI, Hung CF, Wu TC, and Kim TW.](#)
Ectopic expression of X-linked lymphocyte-regulated protein pM1 renders tumor cells resistant to antitumor immunity.
Cancer Res. 2010. 70(8), 3062-3070. doi: 10.1158/0008-5472.CAN-09-3856.
 PMID: 20395201.
 [Affymetrix Mouse Genome 430 2.0 arrays]

- [Allen JG, Weiss ES, Wilson MA, Arnaoutakis GJ, Blue ME, Talbot Jr CC, Jie C, Lange MS, Troncoso JC, Johnston MV, Baumgartner WA.](#)
Hawley H. Seiler Resident Award. Transcriptional Profile of Brain Injury in Hypothermic Circulatory Arrest and Cardiopulmonary Bypass.
Ann Thorac Surg 2010. 89(6): 1965-1971
[Agilent Canine 44K gene expression array]
- [Henderson-Macleannan NK, Papp JC, Talbot Jr CC, McCabe ER, Presson AP.](#)
Pathway Analysis Software: annotation errors and solutions.
Mol Genet Metab. 2010. 101(2-3): 134-140.
[data analysis]
- [Yustein JT, Liu YC, Gao P, Jie C, Le A, Vulca-Ross M, Chng WJ, Eberhart CG, Bergsagel PL, Dang CV.](#)
Induction of ectopic Myc target genes JAG2 augments hypoxic growth and tumorigenesis in a human B-cell model.
Proc Natl Acad Sci U.S.A. 2010. 107(8), 3534-3539.
[Affymetrix Human U133 Plus 2.0 Genome array and data analysis]
- [Kedziorek DA, Muja N, Walczak P, Ruiz-Cabello J, Gilad AA, Jie CC, Bulte JW.](#)
Gene expression profiling reveals early cellular responses to intracellular magnetic labelling with superparamagnetic iron oxide nanoparticles.
Magn Reson Med. 2010. 63(4), 1031-1043.
[Affymetrix Mouse Genome 430 2.0 array and data analysis]
- [Vivekanandan P, Daniel HD, Kannangai R, Martinez-Murillo F, Torbenson M.](#)
Hepatitis B virus replication induces methylation of both host and viral DNA.
J Virol. 2010 May; 84(9), 4321-4329.
[HCG112K array (UHN, Ontario, Canada) and data analysis]
- [Dai J, Hyland EM, Norris A, and Boeke JD.](#)
Yin and Yang of Histone H₂B Roles in Silencing and Longevity: A Tale of Two Arginines.
Genetics. 2010. 186(3), 813-828.
[Affymetrix Yeast Genome 2.0 array]
- [Fox RM, Hanlon CD, and Andrew DJ.](#)
The CrebA/Creb3-like Trnascrption Factors Are Major and Direct Regulators of Secretory Capacity.
JCB 2010. 191(3), 479-492.
- [Shimogori T, Lee DA, Miranda-Angulo A, Yang Y, Wang H, Jiang L, Yoshida AC, Kataoka A, Mashiko H, Avetisyan M, Qi L, Qian J, and Blackshaw S.](#)
A Genomic Atlas of Mouse Hypothalamic Development.
Nat. Neurosci. 2010. 13(6), 767-775.
- [Rao A, Zhang Y, Muend S, and Rao R.](#)
Mechanism of Antifungal Activity of Terpenoid Phenols Resembles Calcium Stress and Inhibition of the TOR Pathway.
Antimicrob. Agents Chemother. 2010. 54(12), 5062-5069.
- [Sharrow AC, Ronnett BM, Thoburn CJ, Barber JP, Giuntoli II RL, Armstrong DK, Jones RJ, and Hess AD.](#)
Identification and Characterization of a Spontaneous Ovarian Carcinoma in Lewis Rats.
J. Ovarian Res. 2010. 3(1), 9-16.
- [De Biase LM, Nishiyama A, and Bergles DE.](#)
Excitability and Synaptic Communication Within the Oligodendrocyte Lineage.
J. Neurosci. 2010. 30(10), 3600-3611.
- [Bennett MK, Kulaga HM, and Reed RR.](#)
Odor-Evoked Gene Regulation and Visualization in Olfactory Receptor Neurons.
Mol. Cel. Neurosci. 2010. 43(4), 353-362.

- [Yu H, Smallwood PM, Wang Y, Vidaltamayo R, Reed R, and Nathans J.](#)
Frizzled 1 and Frizzled 2 Genes Function in Palate, Ventricular Septum and Neural Tube Closure: General Implications for Tissue Fusion Processes.
Development. 2010. 137(21), 3707-3717.
- [Kakkad SM, Solaiyappan M, O'Rourke B, Stasinopoulos I, Ackerstaff E, Raman V, Bhujwalla ZM, and Glunde K.](#)
Hypoxic Tumor Microenvironments Reduce Collagen I Fiber Density.
Neoplasia. 2010. 12(8), 608-617.
- [Vidal-Cardenas S, and Greider CW.](#)
Comparing Effects of mTR and mTERT Deletion on Gene Expression and DNA Damage Response: a Critical Examination of Telomere Length Maintenance-Independent Roles of Telomerase.
Nucl. Acids Res. 2010. 38(1), 60-71.
- [Garrido-Laguna I, Tan AC, Uson M, Angenendt M, Ma WW, Villaroel MC, Zhao M, Rajeshkumar NV, Jimeno A, Donehower R, Iacobuzio-Donahue C, Barrett M, Rudek MA, Rubio-Viqueira B, Laheru D, and Hidalgo M.](#)
Integrated Preclinical and Clinical Development of mTOR Inhibitors in Pancreatic Cancer.
Br. J. Cancer. 2010. 103(5), 649-655. [Affymetrix Human U133 Plus 2.0 array]
- [Scharpf RB, Iacobuzio-Donahue CA, Cope L, Ruczinski I, Garrett-Mayer E, Lakkur S, Campagna D, and Parmigian G.](#)
Cross-Platform Comparison of Two Pancreatic Cancer Phenotypes.
Cancer Inform. 2010. 9, 257-264.
- [Walter K, Omura N, Hong S-M, Griffith M, Vincent A, Borges M, and Goggins M.](#)
Overexpression of Smoothed Activates the Sonic Hedgehog Signaling Pathway in Pancreatic Cancer - Associated Fibroblasts.
Clin Cancer Res 2010 16, 1781.
- [Davidson B, Stavnes HT, Holth A, Chen X, Yang Y, Shih L-M, and Wang T-L.](#)
Gene expression signatures differentiate ovarian/peritoneal serous carcinoma from breast carcinoma in effusions.
J. of Cell. and Mol. Med. 2010 15, 535-544.

2009 (26/6)

- [Metzger MB and Michaelis S.](#)
Analysis of quality control substrates in distinct cellular compartments reveals a unique role for Rpn4p in tolerating misfolded membrane proteins.
Mol. Biol. Cell. 2009. 20(3): 1006-1019. DOI: 10.1091/mbc.e08-02-0140. PMID: 19073890.
[Affymetrix Yeast Genome 2.0 array]
- [Cox RT and Spradling AC.](#)
Clueless, a conserved Drosophila gene required for mitochondrial subcellular localization, interacts genetically with parkin.
Dis Model Mech. 2009. 2(9-10): 490-9. DOI: 10.1242/dmm.002378. PMID 19638420.
[Affymetrix Drosophila Genome 2.0 array]
- [Garcia-Ortiz JE, Pelosi E, Omari S, Nedorezov T, Piao Y, Karmazin J, Uda M, Cao A, Cole SW, Forabosco A, Schlessinger D, and Ottolenghi C.](#)
Foxl2 functions in sex determination and histogenesis throughout mouse ovary development.
BMC Dev. Biol. 2009. 9:36. DOI: 10.1186/1471-213X-9-36. PMID: 19538736.
[Affymetrix Mouse MOE 430 2.0 array hybridization and processing]

- Smith IM, Glazer CA, Mithani SK, Ochs MF, Sun W, Bhan S, Vostrov A, Adbullaev Z, Lobanenkov V, Gray A, Liu C, Chang SS, Ostrow KL, Westra WH, Begum S, Dhara M, and Califano J.*
Coordinated activation of candidate proto-oncogenes and cancer tests antigens via promoter demethylation in head and neck cancer and lung cancer.
PLoS One. 2009. 4(3): e4961. DOI: 10.1371/journal.pone.0004961. PMID: 19305507.
 [Affymetrix Human U133 Plus 2.0 array hybridization and scan]
- Smith IM, Mithani SK, Liu C, Chang SS, Begum S, Dhara M, Westra W, Sidransky D, Califano JA.*
Novel integrative methods for gene discovery associated with head and neck squamous cell carcinoma development.
Arch. Otolaryngol. Head Neck Surg. 2009. 135(5): 487-495. DOI: 10.1001/archoto.2009.43. PMID: 19451471.
 [Affymetrix Human U133 Plus 2.0 array hybridization and scan]
- Choi KH, Higgs BW, Weis S, Song J, Llenos IC, Dulay JR, Yolken RH, and Webster MJ.*
Effects of typical and atypical antipsychotic drugs on gene expression profiles in the liver of schizophrenia subjects.
BMC Psychiatry. 2009 9, 57.
- Pletneva M, Fan H, Park JJ, Radojcic V, Jie C, Yu Y, Chan C, Redwood A, Pardoll D, Housseau F.*
IFN-producing killer dendritic cells are antigen-presenting cells endowed with T-cell cross-priming capacity.
Cancer Res. 2009 Aug 15; 69(16), 6607-6614.
- Liang Y, Jiang H, Ratovitski T, Jie C, Nakamura M, Hirschhorn RR, Wang X, Smith WW, Hai T, Poirier MA, Ross CA.*
ATF3 plays a protective role against toxicity by N-terminal fragment of mutant huntingtin in stable PC12 cell line.
Brain Res. 2009 Aug 25; 1286, 221-229.
- Getnet D, Maris CH, Hipkiss EL, Grosso JF, Harris TJ, Yen HR, Bruno TC, Wada S, Adler A, Georgantas RW, Jie C, Goldberg MV, Pardoll DM, Drake CG.*
Tumor recognition and self-recognition induce distinct transcriptional profiles in antigen-specific CD4 T cells.
J Immunol. 2009 Apr 15; 182(8), 4675-4685.
- den Dunnen JT, Sijmons RH, Andersen PS, Vihinen M, Beckmann JS, Rossetti S, Talbot Jr CC, Hardison RC, Povey S, Cotton RG.*
Sharing data between LSDBs and central repositories.
Hum Mutat. 2009 Apr; 30(4), 493-495.
- Inoue T, Maeno A, Talbot Jr CC, Zeng Y, Yeater DB, Leman ES, Kulkarni P, Ogawa O, Getzenberg RH.*
Purine-rich element binding protein (PUR) alpha induces endoplasmic reticulum stress response and cell differentiation pathways in prostate cancer cells.
Prostate. 2009 Jun 1; 69(8), 861-873.
- Doi A, Park I-H, Wen B, Murakami P, Aryee MJ, Irizarry R, Herb B, Ladd-Acosta C, Rho J, Loewer S, Miller J, Schlaeger T, Daley GQ, and Feinberg AP.*
Differential Methylation of Tissue- and Cancer-Specific CpG Island Shores Distinguishes Human Induced Pluripotent Stem Cells, Embryonic Stem Cells and Fibroblasts.
Nat. Genet. 2009. 41(12), 1350-1353.
- Kanashiro-Takeuchi RM, Heidecker B, Lairault G, Dharamsi JW, and Hare JM.*
Sex-Specific Impact of Aldosterone Receptor Antagonism on Ventricular Remodeling and Gene

- Expression after Myocardial Infarction.**
Clin. Transl. Sci. 2009. 2(2), 134-142.
- *Irizarry RA, Ladd-Acosta C, Wen B, Wu Z, Montano C, Onyango P, Cui H, Gabo K, Rongione M, Webster M, Ji H, Potash JB, Sabunciyan S, and Feinberg AP.*
The Human Colon Cancer Methylome Shows Similar Hypo- and Hypermethylation at Conserved Tissue-Specific CpG Island Shores.
Nat. Genet. 2009. 41(2), 178-186.
 - *Keefe MJ.*
Global Assessment of Melanoma-Endothelial Cell Communication Identifies Neuropilin-2 as a Mediator of Melanoma Cell Proliferation.
Johns Hopkins Press. 2009. (Dissertation, ISBN:0549938265).
 - *Jiang T, Collins BJ, Jin N, Watkins DN, Brock MV, Matsui W, Nelkin BD, and Ball DW.*
Achaete-Scute Complex Homologue 1 Regulates Tumor-Initiating Capacity in Human Small Cell Lung Cancer.
Cancer Res. 2009. 69(3), 845-854.
 - *Mandai K, Guo T, Hillaire CS, Meabon JS, Kanning KC, Bothwell M, and Ginty DD.*
LIG Family Receptor Tyrosine Kinase-Associated Proteins Modulate Growth Factor Signals during Neural Development.
Neuron. 2009. 63(6), 614-627.
 - *Rodriguez-Pla A, **Martinez-Murillo F**, Savino PJ, Eagle Jr RC, Seo P, Soloski MJ.*
MMP-12, a novel matrix metalloproteinase associated with giant cell arteritis.
Rheumatology. 2009; 48(11), 1460-1461.
 - *Choi JH, Sheu JJ-C, Guan B, Jinawath N, Markowski P, Wang T-L, and Shih I-M.*
Functional Analysis of 11q13.5 Amplicon Identifies *Rsf-1 (HBXAP)* as a Gene Involved in Paclitaxel Resistance in Ovarian Cancer.
Cancer Res. 2009. 69(4), 1407-1415.
 - *Stasinopoulos I, O'Brien DR, and Bhujwala ZM.*
Inflammation, but not Hypoxia, Mediated HIF-1 α Activation Depends on COX-2.
Cancer Biol. Ther. 2009. 8(1), 31-35.
 - *Wang Z, Sarje A, Che P-L, and Yarema KJ.*
Moderate Strength(0.23-0.28 T) Static Magnetic Fields (SMF) Modulate Signaling and Differentiation in Human Embryonic Cells.
BMC Genomics. 2009. 10,356.
 - *Ye X, Wang Y, Cahill H, Yu M, Badea TC, Smallwood PM, Peachey NS, and Nathans J.*
Norrin, Frizzled-4, and Lrp5 Signaling in Endothelial Cells Controls a Genetic Program for Retinal Vascularization.
Cell. 2009. 139(2), 285-298.
 - *Mithani SK, Shao C, Tan M, Smith IM, Califano JA, El-Naggar AK, and Ha PK.*
Mitochondrial Mutations in Adenoid Cystic Carcinoma of the Salivary Glands.
PLoS One. 2009. 4(12), e8493.
 - *Dasgupta S, Yung RC, Westra WH, Rini DA, Brandes J, and Sidransky D.*
Following Mitochondrial Footprints through a Long Mucosal Path to Lung Cancer.
PLoS One. 2009. 4(8), e6533.
 - *Tan AC, Jimeno A, Lin SH, Wheelhouse J, Chan F, Solomon A, Rajeshkumar NV, Rubio-Viqueira B, and Hidalgo M.*
Characterizing DNA Methylation Patterns in Pancreatic Cancer Genome.
Mol. Oncol. 2009. 3(5-6), 425-438.

- [Elmouelhi N, Aich U, Paruchuri VDP, Meledel MA, Campbell CT, Wang JJ, Srinivas R, Khanna HS, and Yarema KJ.](#)
The Hexosamine Template - A Platform for Modulating Gene Expression and for Sugar-Based Drug Discovery.
J. Med. Chem. 2009. 52(8), 2515-2530.

2008 (21/6)

- [Munugalavadla V, Vemula S, Sim EC, Krishnan S, Chen S, Yan J, Li H, Niziolek PJ, Takemoto C, Robling AG, Yang F-C, and Kapur R.](#)
The p85 α subunit of class IA phosphatidylinositol 3-kinase regulates the expression of multiple genes involved in osteoclast maturation and migration.
Mol. Cell Biol. 2008. 28(23): 7182-98. DOI: 10.1128/MCB.00920-08. PMID: 18809581.
[Affymetrix Mouse Genome MOE 430 2.0 array]
- [Gao Z, Barth AS, DiSilvestre D, Akar FG, Tian Y, Tanskanen A, Kass DA, Winslow RL, Tomaselli GF.](#)
Key pathways associated with heart failure development revealed by gene networks correlated with cardiac remodeling.
Physiol. Genomics. 2008. 35(3): 222-230. DOI: 10.1152/physiolgenomics.00100.2007. PMID: 18780759.
[Affymetrix Canine Genome Array]
- [Wheelan SJ, Martinez Murillo F, Boeke JD.](#)
The incredible shrinking world of DNA microarrays.
Mol Biosyst. 2008 Jul; 4(7), 726-732.
- [Mohamood AS, Bargatze D, Xiao Z, Jie C, Yagita H, Ruben D, Watson J, Chakravarti S, Schneck JP, Hamad AR.](#)
Fas-mediated apoptosis regulates the composition of peripheral alphabeta T cell repertoire by constitutively purging out double negative T cells.
PLoS One. 2008; 3(10):e3465.
- [Farrar JE, Nater M, Caywood E, McDevitt MA, Kowalski J, Takemoto CM, Talbot Jr CC, Meltzer P, Esposito D, Beggs AH, Schneider HE, Graboswka A, Ball SE, Niewiadomska E, Sieff CA, Vlachos A, Atsidaftos E, Ellis SR, Lipton JM, Gazda HT, Arceci RJ.](#)
Abnormalities of the large ribosomal subunit protein, Rpl35a, in Diamond-Blackfan anemia.
Blood. 2008 Sep 1; 112(5), 1582-1592.
- [Sedaght AR, German J, Teslovich TM, Cofrancesco J Jr, Jie CC, Talbot Jr CC, Siliciano RF.](#)
Chronic CD4+ T-cell activation and depletion in human immunodeficiency virus type 1 infection: type 1 interferon-mediated disruption of T-cell dynamics.
J Virol. 2008 Feb; 82(4), 1870-1883.
- [Christoforou N, Miller RA, Hill CM, Jie CC, McCallion AS, Gearhart JD.](#)
Mouse ES cell-derived cardiac precursor cells are multipotent and facilitate identification of novel cardiac genes.
J Clin Invest. 2008 Mar; 118(3), 894-903.
- [Celis I, Verreault A, and Boeke JD.](#)
Histone H₃K₅₆ Hyperacetylation Perturbs Replisomes and Causes DNA Damage.
Genetics. 2008. 179(4), 1769-1784.
- [Miller RA, Christoforou N, Pevsner J, McCallion AS, and Gearhart JD.](#)
Efficient Array-Based Identification of Novel Cardiac Genes through Differentiation of Mouse

ESCs.

PLoS One. 2008. 3(5), e2176.

- [Heidecker B, Kasper EK, Wittstein IS, Champion HC, Breton E, Russell ST, Kittleson MM, Baughman KL, and Hare JM.](#)

Transcriptomic Biomarkers for Individual Risk Assessment in New-Onset Heart Failure.

Circulation. 2008. 118(3), 238-246.

- [Sfanos KS, Bruno TC, Maris CH, Xu L, Thoburn CJ, DeMarzo AM, Meeker AK, Issacs WB, and Drake CG.](#)

Phenotypic Analysis of Prostate-Infiltrating Lymphocytes Reveals T_H17 and T_{reg} Skewing.

Clin. Cancer Res. 2008. 14(11), 3254-3261.

- [Deppmann CD, Mihalas S, Sharma N, Lonze BE, Niebur E, and Ginty DD.](#)

A Model for Neuronal Competition During Development.

Science. 2008. 320(5874), 369-373.

- [Song D, Chaerkady R, Tan AC, Garcia-Garcia E, Nalli A, Suárez-Gauthier A, López-Ríos F, Zhang XF, Solomon A, Tong J, Read M, Fritz C, Jimeno A, Pandey A, and Hidalgo M.](#)

Antitumor Activity and Molecular Effects of the Novel Heat Shock Protein 90 Inhibitor, IPI-504, in Pancreatic Cancer.

Mol. Cancer Ther. 7(10), 3275-3284.

- [Haberman RP, Lee HJ, Colantuoni C, Koh MT, and Gallagher M.](#)

Rapid Encoding of New Information Alters the Profile of Plasticity-related mRNA Transcripts in the Hippocampal CA3 Region.

PNAS. 2008. 105(30), 10601-10606.

- [Makita T, Sucov HM, Garipey CE, Yanagisawa M, and Ginty DD.](#)

Endothelins Are Vascular-Derived Axonal Guidance Cues for Developing Sympathetic Neurons.

Nature. 2008. 452(7188), 759-763.

- [Rattner A, Toulabi L, Williams J, Yu H, and Nathans J.](#)

The Genomic Response of the Retinal Pigment Epithelium to Light Damage and Retinal Detachment.

J. Neurosci. 2008. 28(39), 9880-9889.

- [Liu C, Wang Y, Smallwood PM, and Nathans J.](#)

An Essential Role for Frizzled5 in Neuronal Survival in the Parafascicular Nucleus of the Thalamus.

J. Neurosci. 2008. 28(22), 5641-5653.

- [Liu J-W, Nagpal JK, Sun W, Lee J, Kim MS, Ostrow KL, Zhou S, Jeronimo C, Henrique R, Criekinge WV, Moon CS, Califano JA, Trink B, and Sidransky D.](#)

ssDNA-Binding Protein 2 Is Frequently Hypermethylated and Suppresses Cell Growth in Human Prostate Cancer.

Clin Cancer Res. 2008. 14(12), 3754-3760.

- [Campagna D, Cope L, Lakkur SS, Henderson C, Laheru D, and Iacobuzio-Donahue CA.](#)

Gene Expression Profiles Associated with Advanced Pancreatic Cancer.

Int. J. Clin. Exp. Pathol. 2008. 1(1), 32-43.

- [Singh OV, Pollard HB, and Zeitlin PL.](#)

Chemical Rescue of Δ F508-CFTR Mimics Genetic Repair in Cystic Fibrosis Bronchial Epithelial Cells.

Mol. Cell. Proteom. 2008. 7(6), 1099-1100.

- [Allen AK and Spradling AC.](#)

The Sf1-Related Nuclear Hormone Receptor Hr39 Regulates *Drosophila* Female Reproductive Tract Development and Function.

Development. 2008. 135(2), 311-321.

2007 (16/6)

- [Jimeno A, Rubio-Viqueira B, Amado ML, Grunwald V, Maitra A, Iacobuzio-Donahue C, and Hidalgo M.](#)
Dual mitogen-activated protein kinase and epidermal growth factor receptor inhibition in biliary and pancreatic cancer.
Mol. Cancer Ther. 2007. 6(3): 1079-88. DOI:10.1158/1535-7163.MCT-06-0448. PMID: 17363501.
[Affymetrix Human Genome U133A array]
- [Peterson NC and Servinsky MD.](#)
Development of molecular and cellular biomarkers of pain.
Comp. Med. 2007. 57(6): 554-562. PMID: 18246867.
[Affymetrix Mouse Genome U74Av2 and MOE 430 2.0 arrays]
- [Zhang L, Jie C, Obie C, Abidi F, Schwartz CE, Stevenson RE, Valle D, Wang T.](#)
X chromosome cDNA microarray screening identifies a functional PLP2 promoter polymorphism enriched in patients with X-linked mental retardation.
Genome Res. 2007 May; 17(5), 641-648.
- [Lin KY, Lu D, Hung CF, Peng S, Huang L, Jie C, Murillo F, Rowley J, Tsai YC, He L, Kim DJ, Jaffee E, Pardoll D, Wu TC.](#)
Ectopic expression of vascular cell adhesion molecule-1 as a new mechanism for tumor immune evasion.
Cancer Res. 2007 Feb 15; 67(4), 1832-1841.
- [Shahlee A, Branda S, Lee Y, Jie C, Takemoto C.](#)
Distinct and Shared transcriptomes are regulated by Microphthalmia-associated transcription factor isoforms in mast cells.
J Immunol. 2007 Jan 1; 178(1):378-388
- [Weis S, Llenos IC, Dulay JR, Elashoff M, Martinez-Murillo F, Miller CL.](#)
Quality control for microarray analysis of human brain samples: The impact of postmortem factors, RNA characteristics, and histopathology.
J Neurosci Methods. 2007 Sep 30; 165(2), 198-209.
- [Horaitis O, Talbot Jr CC, Phommarinh M, Philips KM, Cotton RG.](#)
A database of locus-specific databases.
Nat Genet. 2007 Apr; 39(4), 425.
- [Kannangai R, Vivekanandan P, Martinez-Murillo F, Choti M, and Torbenson M.](#)
Fibrolamellar carcinomas show overexpression of genes in the RAS, MAPK, PIK3, and xenobiotic degradation pathways.
Human Pathology 2007 Apr; 38(4), 639-644.
- [Chang T-C, Wentzel EA, Kent OA, Ramachandran K, Mullendore M, Lee KH, Feldmann G, Yamakuchi M, Ferlito M, Lowenstein CJ, Arking DE, Beer MA, Maitra A, and Mendell J.](#)
Transactivation of miR-34a by p53 Broadly Influences Gene Expression and Promotes Apoptosis.
Mol. Cell. 2007. 26(5), 745-752.
- [Kaur R, Ma B, and Cormack BP.](#)
A Family of Glycosylphosphatidylinositol-Linked Aspartyl Proteases Is Required for Virulence of *Candida glabrata*.
PNAS. 2007. 104(18), 7628-7633.
- [Yang Z, Quigley HA, Pease ME, Yang Y, Qian J, Valenta D, and Zack DJ.](#)
Changes in Gene Expression in Experimental Glaucoma and Optic Nerve Transection: The Equilibrium between Protective and Detrimental Mechanisms.
Invest. Ophthalmol. Vis. Sci. 2007. 48(12), 5539-5548.

- [Zhang Y-Q and Rao R.](#)
Global Disruption of Cell Cycle Progression and Nutrient Response by the Antifungal Agent Amiodarone.
JBC. 2007. 282(52), 37844-37853.
- [Mori N, Glunde K, Takagi T, Raman V, and Bhujwalla ZM.](#)
Choline Kinase Down-Regulation Increases the Effect of 5-Fluorouracil in Breast Cancer Cells.
Cancer Res. 2007. 67(23), 11284-11290.
- [Stasinopoulos I, O'Brien DR, Wildes F, Glunde K, and Bhujwalla ZM.](#)
Silencing of Cyclooxygenase-2 Inhibits Metastasis and Delays Tumor Onset of Poorly Differentiated Metastatic Breast Cancer Cells.
Mol. Cancer Res. 2007. 5(5), 435-442.
- [Chen J and Nathans J.](#)
Estrogen-Related receptor β /NR3B2 Controls Epithelial Cell Fate and Endolymph Production by the Stria Vascularis.
Developmental Cell. 2007. 13(3), 325-337.
- [Ackerstaff E, Artemov D, Gillies RJ, and Bhujwalla ZM.](#)
Hypoxia and the Presence of Human Vascular Endothelial Cells Affect Prostate Cancer Cell Invasion and Metabolism.
Neoplasia. 2007. 9(12), 1138-1151.

2006 (15/9)

- [Kim JW, Tchernyshyov I, Semenza GL, Dang CV.](#)
HIF-1-mediated expression of pyruvate dehydrogenase kinase: a metabolic switch required for cellular adaptation to hypoxia.
Cell Metab. 2006. 3(3): 177-85. DOI: 10.1016/j.cmet.2006.02.002. PMID: 16517405.
[Affymetrix Human Genome HU-U133A array]
- [Wang X, Bo J, Bridges T, Dugan KD, Pan TC, Chodosh LA, and Montell DJ.](#)
Analysis of cell migration using whole-genome expression profiling of migratory cells in the *Drosophila* ovary.
Dev. Cell. 2006. 10(4): 483-95. DOI: 10.1016/j.devcel.2006.02.003. PMID: 16580993.
[Affymetrix *Drosophila* Genome array]
- [Wheelan SJ, Scheifele LZ, Martinez-Murillo F, Irizarry RA, Boeke JD.](#)
Eukaryotic Transposable Elements and Genome Evolution Special Feature: Transposon insertion site profiling chip (TIP-chip).
Proc Natl Acad Sci U S A. 2006 Nov 21;103(47):17632-7.
- [Wheelan SJ, Martinez-Murillo F, Irizarry RA, Boeke JD.](#)
Stacking the deck: double-tiled DNA microarrays.
Nat Methods. 2006 Nov;3(11):903-7.
- [Xu Y, Zhang W, Klaus J, Young J, Koerner I, Sheldahl LC, Hurn PD, Martinez-Murillo F, Alkayed NJ.](#)
Role of cocaine- and amphetamine-regulated transcript in estradiol-mediated neuroprotection.
Proc Natl Acad Sci U S A. 2006 Sep 26;103(39):14489-94.
- [Glunde K, Jie C, Bhujwalla ZM.](#)
Mechanisms of indomethacin-induced alterations in the choline phospholipid metabolism of breast cancer cells.
Neoplasia. 2006 Sep;8(9):758-71.
- [Mohamood AS, Trujillo CJ, Zheng D, Jie C, Murillo FM, Schneck JP, Hamad AR.](#)

- Gld mutation of Fas ligand increases the frequency and up-regulates cell survival genes in CD25+CD4+ TR cells.
Int Immunol. 2006 Aug;18(8):1265-77.
- [Turchan-Cholewo J, Liu Y, Gartner S, Reid R, Jie C, Peng X, Chen KC, Chauhan A, Haughey N, Cutler R, Mattson MP, Pardo C, Conant K, Sacktor N, McArthur JC, Hauser KF, Gairola C, Nath A.](#)
Increased vulnerability of ApoE4 neurons to HIV proteins and opiates: protection by diosgenin and L-deprenyl.
Neurobiol Dis. 2006 Jul;23(1):109-19.
 - [Song J, Jie C, Polk P, Shridhar R, Clair T, Zhang J, Yin L, Keppler D.](#)
The candidate tumor suppressor CST6 alters the gene expression profile of human breast carcinoma cells: down-regulation of the potent mitogenic, motogenic, and angiogenic factor autotaxin.
Biochem Biophys Res Commun. 2006 Feb 3; 340(1), 175-182.
 - [Arigo JT, Eyster DE, Carroll KL, and Corden JL.](#)
Termination of Cryptic Unstable Transcripts Is Directed by Yeast RNA-Binding Proteins Nrd1 and Nab3.
Molecular Cell. 2006. 23(6), 841-851.
 - [Davidson B, Zhang Z, Kleinberg L, Li M, Flørenes VA, Wang T-L, and Shih I-M.](#)
Gene Expression Signatures Differentiate Ovarian/Peritoneal Serous Carcinoma from Diffuse Malignant Peritoneal Mesothelioma.
Clin. Cancer Res. 2006. 12(20), 5944-5950.
 - [Tang L, Liu X, and Clarke ND.](#)
Inferring Direct Regulatory Targets from Expression and Genome Location Analysis: A Comparison of Transcription Factor Deletion and Overexpression.
BMC Genomics. 2006. 7,215.
 - [Dunn CD, Lee MS, Spencer FA, and Jensen RE.](#)
A Genomewide Screen for Petite-Negative Yeast Strains Yields a New Subunit of the i-AAA Protease Complex.
Mol. Biol. Cell. 2006. 17(1), 213-226.
 - [Takahashi H, McCaffery JM, Irizary RA, and Boeke JD.](#)
Nucleocytosolic Acetyl-Coenzyme A Synthetase Is Required for Histone Acetylation and Global Transcription.
Mol. Cell. 2006. 23(2), 207-217. [Affymetrix Yeast Genome 2.0 array]
 - [O'Donnell KA, Yu D, Zeller KI, Kim J-W, Racke F, Thomas-Tikhonenko A, and Dang CV.](#)
Activation of Transferrin Receptor 1 by c-Myc Enhances Cellular Proliferation and Tumorigenesis.
Mol. Cell. Biol. 2006. 26(6), 2373-2386.

2005 (17/7)

- [Kannangai R, Diehl AM, Sicklick J, Rojkind M, Thomas D, and Torbenson M.](#)
Hepatic angiomyolipoma and hepatic stellate cells share a similar gene expression profile.
Hum. Pathol. 2005. 36(4): 341-7. DOI: 10.1016/j.humpath.2005.01.002. PMID: 15891994.
[Affymetrix Human Genome U133A array]
- [Wang K, Xue T, Tsang SY, Van Huizen R, Wong CW, Lai KW, Ye Z, Cheng L, Au KW, Zhang J, Li GR, Lau CP, Tse HF, and Li RA.](#)
Electrophysiological properties of pluripotent human and mouse embryonic stem cells.
Stem Cells. 2005. 23(10), 1526-34. DOI: 10.1634/stemcells.2004-0299. PMID:

16091557.

[Affymetrix Human Genome U133A array]

- [Denkin S, Byrne S, Jie C, Zhang Y.](#)
Gene expression profiling analysis of Mycobacterium tuberculosis genes in response to salicylate.
Arch Microbiol. 2005 Nov; 184(3), 152-157.
- [Peyser BD, Irizarry RA, Tiffany CW, Chen O, Yuan DS, Boeke JD, Spencer FA.](#)
Improved statistical analysis of budding yeast TAG microarrays revealed by defined spike-in pools.
Nucleic Acids Res. 2005 Sep 15;33(16):e140.
- [Yuan DS, Pan X, Ooi SL, Peyser BD, Spencer FA, Irizarry RA, Boeke JD.](#)
Improved microarray methods for profiling the Yeast Knockout strain collection.
Nucleic Acids Res. 2005 Jul 1;33(12):e103.
- [Chen H, Rubin E, Zhang H, Chung S, Jie C, Garrett E, Biswal S, Sukumar S.](#)
Identification transcriptional targets of HOXA5.
J Biol Chem. 2005 May 13; 280(19):19373-80
- [Ren J-G, Jie C, Talbot Jr CC.](#)
How PEDF Prevents Angiogenesis: A Hypothesized Pathway.
Medical Hypotheses 2005. 64(1): 74-78.
- [Irizarry RA, Warren D, Spencer F, Kim IF, Biswal S, Frank BC, Gabrielson E, Garcia JG, Geoghegan J, Germino F, Griffin C, Hilmer SC, Hoffman E, Jedlicka AE, Kawasaki E, Martinez-Murillo F, Morsberger L, Lee H, Petersen D, Quackenbush J, Scott A, Wilson M, Yang Y, Ye SQ, Yu W.](#)
Multiple-laboratory comparison of microarray platforms.
Nat Methods. 2005 May; 2(5), 345-350.
- [Yang R, Murillo FM, Delannoy MH, Blosser RL, Yutzy WH 4th, Uematsu S, Takeda K, Akira S, Viscidi RP, Roden RB.](#)
B lymphocyte activation by human papillomavirus-like particles directly induces Ig class switch recombination via TLR4-MyD88.
J Immunol. 2005 Jun 15; 174(12), 7912-7919.
- [Mao R, Wang X, Spitznagel EL, Frelin LP, Ting JC, Ding H, Kim J-W, Ruczinski I, Downey TJ, and Pevsner J.](#)
Primary and Secondary Transcriptional Effects in the Developing Human Down Syndrome Brain and Heart.
Genome Biology. 2005. 6(13), R107.
- [Rattner A and Nathans J.](#)
The Genomic Response to Retinal Disease and Injury: Evidence for Endothelin Signaling from Photoreceptors to Glia.
J. Neurosci. 2005. 25(18), 4540-4549.
- [Chen J, Rattner A, and Nathans J.](#)
The Rod Photoreceptor-Specific Nuclear Receptor Nr2e3 Represses Transcription of Multiple Cone-Specific Genes.
J. Neurosci. 2005. 25(1), 118-129.
- [Chou W-C, Chen H-Y, Yu S-L, Cheng L, Yang P-C, and Dang CV.](#)
Arsenic Suppresses Gene Expression in Promyelocytic Leukemia Cells Partly through Sp1 Oxidation.
Blood. 2005. 106(1),304-310.
- [Li F, Wang Y, Zeller KI, Potter JJ, Wonsey DR, O'Donnell KA, Kim J-W, Yustein JT, Lee LA, and Dang CV.](#)
Myc Stimulates Nuclearly Encoded Mitochondrial Genes and Mitochondrial Biogenesis.
Mol. Cell. Biol. 2005. 25(14), 6225-6234.

- *Safford M, Collins S, Lutz MA, Allen A, Huang C-T, Kowalski J, Blackford A, Horton MR, Drake C, Schwartz RH, and Powell JD.*
Egr-2 and Egr-3 Are Negative Regulators of T Cell Activation.
Nat. Immunol. 2005. 6(5), 472-480.
- *Jimeno A, Rubio-Viqueira B, Amador ML, Oppenheimer D, Bouraoud N, Kulesza P, Sebastani V, Maitra A, and Hidalgo M.*
Epidermal Growth Factor Receptor Dynamics Influences Response to Epidermal Growth Factor Receptor Targeted Agents.
Cancer Res. 2005. 65(8), 3003-3010.
- *Hansel DE, Dhara S, Huang RC, Ashfaq R, Deasel M, Shimada Y, Bernstein HS, Harmon J, Brock M, Forastiere A, Washington MK, Maitra A, and Montgomery E.*
CDC2/CDK1 Expression in Esophageal Adenocarcinoma and Precursor Lesions Serves as a Diagnostic and Cancer Progression Marker and Potential Novel Drug Target.
Am. J. Surg. Pathol. 2005. 29(3), 390-399.

2004 (16/14)

- *Yung CK, Halperin VL, Tomaselli GF, and Winslow RL.*
Gene expression profiles in end-stage human idiopathic dilated cardiomyopathy: altered expression of apoptotic and cytoskeletal genes.
Genomics. 2004. 83(2), 281-297. doi:
<https://doi.org/10.1016/j.ygeno.200308.007>. PMID:14706457.
[Affymetrix Human Genome GeneChip HG-U133A array]
- *Vine AM, Heaps AG, Kaftantzi L, Mosley A, Asquith B, Witkover A, Thompson G, Saito M, Goon PK, Carr L, **Martinez-Murillo F**, Taylor GP, Bangham CR.*
The role of CTLs in persistent viral infection: cytolytic gene expression in CD8+ lymphocytes distinguishes between individuals with a high or low proviral load of human T cell lymphotropic virus type I.
J Immunol. 2004 Oct 15; 173(8), 5121-5129.
- *Chou W, **Jie C**, Kenedy A, Jones R, Trush M, Dang C.*
Role of NADPH oxidase in arsenic-induced reactive oxygen species formation and cytotoxicity in myeloid leukemia cells.
Proc Natl Acad Sci 2004 101:4578-4583.
- *Glunde K, **Jie C**, Bhujwalla ZM.*
Molecular Causes for the Abberant Choline Phospholipid Metabolism of Breast Cancer Cells.
Cancer Research. 2004 64(12): 4270-6.
- *Warren C, Eckley M, Lee M, Hanna J, Hughes A, Peyser B, **Jie C**, Irizarry R, **Spencer F**.*
The S Phase Checkpoint Safeguards High Fidelity Sister Chromatid Cohesion.
Mol Biol Cell. 2004 15: 1724-1735.
- *Yin X, Zhou J, **Jie C**, Xing D, Zhang Y.*
Anticancer Activity Mechanism of Scutellaria barbata extract on human lung cancer cell line A549.
Life Sci. 2004 17;75(18):2233-44.
- *Ng CM, Cheng A, Myers LA, **Martinez-Murillo F**, **Jie C**, Hausladen JMW, Mecham RP, Judge DP, Dietz HC.*
TGF-beta-dependent pathogenesis of mitral valve prolapse in a mouse model of Marfan syndrome.
J Clin Invest, 2004 Dec;114 (11):1586-92.
- *Yang R, **Martinez-Murillo F**, Cui H, Blosser R, Uematsu S, Takeda K, Akira S, Viscidi R, and Roden R.*

- Papillomavirus-like particles stimulate murine bone marrow-derived dendritic cells to produce alpha interferon and Th1 immune responses via MyD88.
J Virol. 2004 Oct;78(20):11152-60.
- *Abounader R, Reznik T, Colantuoni C, Martinez-Murillo F, Rosen EM, Laterra J.*
Regulation of c-Met-dependent gene expression by PTEN.
Oncogene. 2004 Dec 9;23(57):9173-82.
 - *Yang R, Murillo FM, Lin KY, Yutzy WH 4th, Uematsu S, Takeda K, Akira S, Viscidi RP, Roden RB.*
Human papillomavirus type-16 virus-like particles activate complementary defense responses in key dendritic cell subpopulations.
J Immunol. 2004 Aug 15;173(4):2624-31.
 - *Wu Z, Irizarry R, Gentleman R, Martinez Murillo F, Spencer F.*
A model based background adjustment for oligonucleotide expression arrays.
Journal of the American Statistical Association 2004, vol. 99, no. 468, pp. 909 – 917.
 - *Georgantas RW 3rd, Tanadve V, Malehorn M, Heimfeld S, Chen C, Carr L, Martinez-Murillo F, Riggins G, Kowalski J, Civin CI.*
Microarray and serial analysis of gene expression analyses identify known and novel transcripts overexpressed in hematopoietic stem cells.
Cancer Res. 2004 Jul 1;64(13):4434-41.
 - *Mendell JT, Sharifi NA, Meyers JL, Martinez-Murillo F, Dietz HC.*
Nonsense surveillance regulates expression of diverse classes of mammalian transcripts and mutes genomic noise.
Nat Genet. 2004 Oct;36(10):1073-8.
 - *Maxwell PH, Coombes C, Kenny AE, Lawlwer JF, Boeke JD, and Curcio MJ.*
Ty1 Mobilizes Subtelomeric Y'Elements in Telomerase-Negative *Saccharomyces cerevisiae* Survivors.
Mol. Cell. Biol. 2004. 24(22), 9887-9898.
 - *Kowalski J, Drake C, Schwartz RH, and Powell J.*
Non-Parametric, Hypothesis-Based Analysis of Microarrays for Comparison of Several Phenotypes.
Bioinformatics. 2004. 20(3), 364-373.
 - *Lee MS and Spencer FA.*
Bipolar Orientation of Chromosomes in *Saccharomyces cerevisiae* Is Monitored by Mad1 and Mad2, but Not by Mad3.
Proc. Natl. Acad. Sci. USA. 2004. 102(29), 10655-10660.

2003 (2)

- *Mao R, Zielke CL, Zielke HR, and Pevsner J.*
Global Up-Regulation of Chromosome 21 Gene Expression in the Developing Down Syndrome Brain.
Genomics. 2003. 81(5), 457-467.
- *Ryu B. and Kern SE.*
The Essential Similarity of TGF β and Activin Receptor Transcriptional Responses in Cancer Cells.
Cancer Biol. Ther. 2003. 2(2), 164-170.

2002 (1)

- *Barañano DE, Rao M, Ferris CD, and Snyder SH.*
Biliverdin Reductase: A Major Physiologic Cytoprotectant.
PNAS. 2002. 99(25), 16093-16098.