

Publications2017-2018

Joshua Adams

Adams J, Schaaf CP. "Diagnosis and genetics of alacriClinical Genetics2018. DOI:10.1111/cge.13173

Stefanie Alexander

Grafe I, Alexander S, Peterson JR, Snider TN, Levi B, Lee B, Mishina Y. "TGF- β family signaling in mesenchymal differentiation". Cold Spring Harbor Perspectives in Biology2017.. DOI:10.1101/cshperspect.a022202
Lim J, Grafe Alexander S, Lee B. "Genetic causes and mechanisms of Osteogenesis Imperfecta". Bone2017.
DOI:10.1016/j.bone.2017.02.004

Truston Bodine

Bodine TJ, Evangelista MA, Chang HT, Ayoub CA, Samuel BS, Sucgang R, Zechiedrich L. "Escherichia coli DNA ligase may mitigate damage from oxidative stress". PLOS ONE2017. DOI:10.1371/journal.pone.0180800
Conley ZC, Bodine TJ, Chou A, Zechiedrich L. "Wicked: The untold story of ciprofloxacin". PLOS Pathogens2018.
DOI:10.1371/journal.ppat.1006805

Thomas Burke

Salazar N, Carlson JC, Huang K, Zheng Y, Oderup C, Gross J, Burke ADM, Lewén S, Scholz A, et al. "A chimeric antibody against ACKR3/CXCR7 in combination with TMZ activates immune responses and extends survival in mouse glioblastoma models". Molecular Therapy2018. doi:10.1016/j.ymthe.2018.02.030
McClain KL, Picarsic J, Chakraborty R, Zinn D, Lin H, Abhyankar H, Scull B, Shih A, Lim KPH, Eckstein O, Lubega J, PTL, Olea W, Burke TM, Ahmed N, et al. "BRAFV600E in blood and brain and response to BRAF inhibition suggest hematopoietic origin of neurodegeneration in Langerhans cell histiocytosis". Cancer2018 (Accepted).

Hannah Moore Campbell

Campbell HM, Wehrens XHT. "Genetics of atrial fibrillation- An update". Current Opinions in Cardiology2018. DOI: 10.1097/HCO.0000000000000505

Felicia Cao

Cao F, Lu L, Abrams SA, Hawthorne KM, Tam A, Jin W, Dawson B, Shypailo R, Liu H, Lee B, et al. "Generalized metabolic bone disease and fracture risk in Rothmund-Thomson syndrome". Human Molecular Genetics2017.
DOI:10.1093/hmg/ddx178
Yi Z, Prinzing BL, Cao F, Gottschalk S, Krenciute G. "Optimizing EphA2-CAR T cells for the adoptive immunotherapy of glioma". Molecular Therapy- Methods & Clinical Development2018. DOI:10.1016/j.omtm.2018.01.009

Jason George

George JT, Kessler DA, Levine H. "Effects of thymic selection on T cell recognition of foreign and tumor antigenic peptides". Proceedings of the National Academy of Sciences2017. DOI:10.1073/pnas.1708573114
George JT, Jolly MK, Xu S, Somarelli JA, Levine H. "Survival outcomes in cancer patients predicted by a partial EMT gene expression scoring metric". Cancer Research2017. DOI:10.1158/0008-5472.can-16-3521

Patrick Hunt

Hunt PJ, Koons GL, Murri M, Todd SR. "Damage control surgery and the management of a cholecystocolic fistula". In: The American Surgeon2017.

Zachary Kadow

Kadow ZA, Martin JF. "A role for ploidy in heart regeneration". Developmental Cell2018. DOI:10.1016/j.devcel.2018.02.004

Publications2017-2018

Amanda Koire

- Koire A, Kim YW, Wang J, Katsonis P, Jin H, Lichtarge O. "Codon-level co-occurrences of germline variants and somatic mutations in cancer are rare but often lead to incorrect variant annotation and underestimated impact prediction" Galli A, editor PLOS ONE 2017. DOI:10.1371/journal.pone.0174766
- Gallion JK, Koire A, Katsonis P, Schoenegge A-M, Bouvier M, Lichtarge O. "Predicting phenotype from genotype: Improving accuracy through more robust experimental and computational modeling" Human Mutation 2017. DOI:10.1002/humu.23193
- Gennarino VA, Palmer EE, McDonell LM, Wang L, Adams K, Koire JA, See L, Chen C-A, Schaaf CP, Rosenfeld JA, et al. "A mild PUM1 mutation is associated with adult-onset ataxia, whereas haploinsufficiency causes developmental delay" MCID Eang Yu.1 (obuses(oir))154 (.)]TJ ET EMC /Span <> (en-US)/MCID 2212 >2 (W)33 (ang L,

Publications2017-2018

Cynthia McClard

- McClard CK, Kochukov MY, Herman I, Liu Z, Eblimit A, Moayedi Y, Ortiz-Guzman J, Colchado D, Pekarek B, Panneerselvam S, et al. "POU6f1 mediates neuropeptide-dependent plasticity in the adult brain". *Journal of Neuroscience* 2018. DOI:10.1523/jneurosci.1641-17.2017
- Liu G, McClard CK, Tepe B, Swanson J, Pekarek B, Panneerselvam S, Arenkiel B. "Olfactory cued learning paradigm". *PROTOCOL* 2017. DOI:10.21769/bioprotoc.2251
- Chacko JG, McClard CK, Prospero-Ponce C. "Functional visual loss". *American Academy of Ophthalmology, Eye 2018*.
- Liu G, Patel JM, Tepe B, McClard CK, Swanson J, Arenkiel BR. "An objective and reproducible test of olfactory learning and discrimination in mice". *JoVE* 2017.

Eric Molina

- Trachtenberg JE, Santoro M, Williams C III, Piard CM, Smith BT, Placone JK, Merinof BAR, Lamhammedi-Cherradi S-E, Ludwig JA, et al. "Effects of shear stress gradients on Ewing sarcoma cells using 3D printed scaffolds and flow perfusion". *ACS Biomaterials Science & Engineering* 2017. DOI:10.1021/acsbiomaterials.6b00641

Jay Patel

- Patel JM, Gray A, Rizk C. "A baby with blisters on the palmar and plantar surfaces". *Clinical Advisor* 2017.
- Herman AMP, Patel JM, Arenkiel BA. "Optogenetics: From neuronal function to mapping and disease biology". In Chapter 15: Optogenetic Approaches to investigate brain circuits
- Lu HC, Tan Q, Rousseaux MWC, Wang W, Kim JY, Richman R, Wan Y, Patel JM, Liu X, et al. "Disruption of the ATXN1-CIC complex causes a spectrum of neurobehavioral phenotypes in mice and humans". *Genetics* 2017. DOI:10.1038/ng.3808
- Liu G, Patel JM, Tepe B, McClard CK, Swanson J, Arenkiel BR. "An objective and reproducible test of olfactory learning and discrimination in mice". *JoVE* 2017.

Valencia Potter

- Robichaux MA, Potter VL, Zhang Z, He F, Schmid MF, Wensel TG. "Defining the layers of a sensory cilium with STORM and cryo-electron nanoscopy". *BioRxiv* 2017. DOI:10.1101/198655

Jasdeep Sabharwal

- Sabharwal J, Seilheimer RL, Tao X, Cowan CS, Frankfort BJ, Wu SM. "Elevated IOP alters the space-time profiles in the center and surround of both ON and OFF RGCs in mice". *Proceedings of the National Academy of Sciences* 2017. DOI:10.1073/pnas.1706994114

Robert Seilheimer

- Sabharwal J, Seilheimer RL, Tao X, Cowan CS, Frankfort BJ, Wu SM. "Elevated IOP alters the space-time profiles in the center and surround of both ON and OFF RGCs in mice". *Proceedings of the National Academy of Sciences* 2017. DOI:10.1073/pnas.1706994114

Muhammad Shamim

- Dudchenko O, Batra SS, Omer AD, Nyquist SK, Hoeger M, Duran-Santos MS, Machol I, Lander ES, Aiden AP, et al. "De novo assembly of the *Aedes aegypti* genome using Hi-C yields chromosome-length scaffolds". *Science* 2017. DOI:10.1126/science.aal3327
- Phanstiel DH, Van Bortle K, Spacek D, Hess ST, Shamim MS, Machol I, Love MI, Aiden EL, Bassik MC, Snyder MP. "Static and dynamic DNA loops form AP-1-bound activation hubs during macrophage development". *Molecular Cell* 2017. DOI:10.1016/j.molcel.2017.08.006
- Rao SSP, Huang S-C, Glenn St Hilaire B, Engreitz JM, Perez EM, Kieber-Kwon K-R, Sanborn AL, Johnstone SE, Basco GD, Bochkov ID, Shamim MS, et al. "Cohesin loss eliminates all loop domain". *Cell* 2017. DOI:10.1016/j.cell.2017.09.026
- Larsen PA, Harris RA, Liu Y, Murali SC, Campbell CR, Brown AD, Sullivan BA, Shelton J, Brown SJ, Rashid M, Shamim MS, et al. "Hybrid de novo genome assembly and centromere characterization of the gray mouse lemur (*Microcebus murinus*)". *BMC Biology* 2017. DOI:10.1186/s12915-017-0439-6

Publications2017-2018

Thomas Shum

- Shum T, Omer B, Tashiro H, Kruse RL, Wagner DL, Parikh K, Yi Z, Sauer T, Liu D, Parihar R, et al. "Constitutive signaling from an engineered IL7 receptor promotes durable tumor elimination by tumor redirected T cells". *Cancer Discovery* 2017. DOI:10.1158/2159-8290.cd-17-0538
- Kruse RL, Shum T, Legras X, Barzi M, Pankowicz FP, Gottschalk S, Bissig K-D. "In situ liver expression of HBsAg/CD3 bispecific antibodies for HBV immunotherapy". *Molecular Therapy- Methods & Clinical Development* 2017. DOI:10.1016/j.omtm.2017.08.006
- Tashiro H, Sauer T, Shum T, Parikh K, Mamokin M, Omer B, Rouce RH, Lulla P, Rooney CM, Gottschalk S, et al. "Treatment of acute myeloid leukemia with T cells expressing chimeric antigen receptors directed to C-type lectin-like molecule 1". *Molecular Therapy* 2017. DOI:10.1016/j.ymthe.2017.05.024
- Schmueck-Henneresse M, Omer Shum T, Tashiro H, Mamokin M, Lapteva N, Sharma S, Rol-lins L, Dotti G, Reinke P, et al. "Comprehensive approach for identifying the t cell subset origin of CD3 and CD28 antibody-activated chimeric antigen receptor-modified T cells". *The Journal of Immunology* 2017. DOI:10.4049/jimmunol.1601494

Brandon Smith

- Smith BT, Santoro M, Grosfeld EC, Shah SR, van den Beucken JJJP, Jansen JA, Mikos AG. "Incorporation of fast dissolving glucose porogens into an injectable calcium phosphate cement for bone tissue engineering". *Biomaterialia* 2017. DOI:10.1016/j.actbio.2016.12.024
- Bracaglia LG, Smith BT, Watson E, Arumugasaamy N, Mikos AG, Fisher JP. "3D printing for the design and fabrication of polymer-based gradient scaffolds". *Acta Biomaterialia* 2017. DOI:10.1016/j.actbio.2017.03.030
- Trachtenberg JE, Placone JK, Smith BT, Fisher JP, Mikos AG. "Extrusion-based 3D printing of poly(propylene fumarate) scaffolds with hydroxyapatite gradients". *Journal of Biomaterials Science, Polymer Ed* 2017. DOI:10.1080/09205063.2017.1286184
- Trachtenberg JE, Santoro M, Williams C III, Piard SM, Smith BT, Placone JK, Menegaz BA, Molina ER, Lamhamdi-Cherradi SE, Ludwig JA, et al. "Effects of shear stress gradients on Ewing sarcoma cells using 3D printed scaffolds and slow perfusion". *ACS Biomaterials Science & Engineering* 2017. DOI:10.1021/acsbiomaterials.6b00641
- Lodoso-Torrecilla I, van Gestel NAP, Diaz-Gomez L, Grosfeld E-C, Laperre K, Winkel GJ, Arts JJ, Mikos AG, Jansen JA, et al. "Multimodal pore formation in calcium phosphate cements". *Journal of Biomedical Materials Research Part A* 2017. DOI:10.1002/jbm.a.36245

Christopher Sylvester

- Sylvester CB, Abe J, Patel ZS, Grande-Allen KJ. "Radiation-induced cardiovascular disease: mechanisms and importance of linear energy transfer". *Frontiers in Cardiovascular Medicine* 2018. DOI:10.3389/fcvm.2018.00005

Alexander Tatara

- Tatara AM, Watson E, Satish T, Scott DW, Kontoyiannis DP, Engel PS, Mikos AG. "Synthesis and characterization of diacid-based unsaturated polyesters: poly(diol fumarate) and poly(diol fumarate-co-succinate)". *Journal of Macromolecules* 2017. DOI:10.1021/acs.biomac.7b00044
- Tatara AM, Kontoyiannis DP, Mikos AG. "Drug delivery and tissue engineering to promote wound healing in the immunocompromised host: Current challenges and future directions". *Advanced Drug Delivery Reviews* 2017. DOI:10.1016/j.addr.2017.12.001
- Heo ST, Tatara AM, Jiménez-Ortigosa C, Jiang Y, Lewis RE, Tarrand J, Tverdek F, Albert ND, Verweij PE, Meis JF, et al. "Changes in in vitro susceptibility patterns of Aspergillus triazoles and correlation with aspergillosis outcome in a tertiary care cancer center, 1999–2015". *Clinical Infectious Diseases* 2017. DOI:10.1093/cid/cix297
- Jundt JS, Wong ME, Tatara AM, Demian NM. "Invasive cutaneous facial mucormycosis in a trauma patient". *Journal of Oral and Maxillofacial Surgery* 2018. DOI:10.1016/j.joms.2018.01.022

Julie Tomolonis

Tomolonis JA

Publications2017-2018

Julia Wang

- Wang J, Al-Ouran R, Hu Y, Kim S-Y, Wan Y-W, Wangler MF, Yamamoto S, Chao H-T, Comjean A, Mohr SE, et al. "MARS: Integration of human and model organism genetic resources to facilitate functional annotation of the human genome". *The American Journal of Human Genetics* 2017. DOI:10.1016/j.ajhg.2017.04.010
- El-Hattab AW, Wang J, Dai H, Almannai M, Staufner C, Alfadhel M, Gambello MJ, Prasun P, Raza S, Lyons HJ, et al. "MPV17-related mitochondrial DNA maintenance defect: New cases and review of clinical, biochemical, and molecular aspects". *Human Mutation* 2018. DOI:10.1002/humu.23387
- El-Hattab AW, Dai H, Almannai M, Wang J, Faqeih EA, Al Asmary A, Saleh MAM, Elamin MAO, Alfadhel M, Alkuraya FS, et al. "Molecular and clinical spectra of FBXL4 de novo mutations". *Human Mutation* 2017. DOI:10.1002/humu.23341

Emma Watson

- Tatara AM, Watson E, Satish T, Scott DW, Kontoyiannis DP, Engel PS, Mikos AG. "Synthesis and characterization of diol-based unsaturated polyesters: poly(diol fumarate) and poly(diol fumarate-co-succinate)". *Journal of Macromolecules Science Polymer Chemistry* 2017. DOI:10.1021/acs.biomac.7b00044
- Bracaglia LG, Smith BT, Watson E, Arumugasaamy N, Mikos AG, Fisher JP. "3D printing for the design and fabrication of polymer-based gradient scaffolds". *Acta Biomaterialia* 2017. DOI:10.1016/j.actbio.2017.03.030

Eric Yang

- Yang EC, Tan MT, Schwarz RA, Richards-Kortum RR, Gillenwater AM, Vigneswaran N. "Non-invasive diagnostic adjuncts for the evaluation of potentially premalignant oral epithelial lesions: Current limitations and future directions". *Journal of Oral Surgery, Oral Medicine, Oral Pathology, Oral Radiology, and Endodontics*. Accepted.

Lin Zhu

- Zhu LL, Beauchamp MS. "Mouth and voice: A relationship between visual and auditory preference in the human superior temporal sulcus". *The Journal of Neuroscience* 2017. DOI:10.1523/jneurosci.2914-16.2017

Winnie Zou

- Zou WY, Blutt SE, Zeng XL, Chen MS, Lo YH, Castillo-Azofeifa D, Klein OD, Shroyer NF, Donowitz M, Estes MK. "Epithelial WNT ligands are essential drivers of intestinal stem cell activation". *Cell Reports* 2018. DOI:10.1016/j.cellrep.2017.12.093
- Zou WY, Blutt SE, Crawford SE, Ettayebi K, Zeng X-L, Saxena K, Ramani S, Karandikar UC, Zachos NC, Estes MK. "Human intestinal enteroids: new models to study gastrointestinal virus infections". *Methods in Molecular Biology*. Humana Press 2017. DOI:10.1007/7651_2017_1
- Lo YH, Noah TK, Chen ZS, Zou WY, Borras E, Vilar E, Shroyer NF. "SPDEF induces quiescence of colorectal cancer cells by changing the transcriptional targets of -catenin". *Gastroenterology* 2017. DOI:10.1053/j.gastro.2017.03.048
- Blutt SE, Crawford SE, Ramani S, Zou WY, Estes MK. "Engineered human gastrointestinal cultures to study the microbiome and infectious diseases". *Cellular and Molecular Gastroenterology and Hepatology* 2018. DOI:10.1016/j.jcmgh.2017.12.001