

Medical Scientist Training Program

Publications 2014-2015

Um K, Niu S, Duman JG, Cheng JX, Tu YK, Schwechter B, Liu F, Hiles L, Narayanan AS, **Ash RT**, Mulherkar S, Alpadi K, Smirnakis SM, Tolias KF. "Dynamic control of excitatory synapse development by a Rac1 GEF/GAP regulatory complex". *Developmental cell*. 2014;29(6):701-15.PMID: 24960694; PMCID: PMC411230.

Bader D, Cerne JZ, McGuire SE. "Recent developments in androgen deprivation therapy for locally advanced prostate cancer". *Oncology & Hematology Review*, 2014.

Ma J, Prince AL, **Bader D**, Hu M, Ganu R, Baquero K, Blundell P, Alan Harris R, Frias AE, Grove KL, Aagaard KM. "High-fat maternal diet during pregnancy persistently alters the offspring microbiome in a primate model". *Nature communications*. 2014;5:3889.PMID: 24846660; PMCID: PMC4078997.

Barry MA, Koshelev MV, Sun GS, Grekin SJ, Stager CE, Diwan AH, Wasko CA, Murray KO, Woc-Colburn L. "Cutaneous leishmaniasis in Cuban immigrants to Texas who traveled through the Darien Jungle, Panama". *The American journal of tropical medicine and hygiene*. 2014;91(2):345-7.PMID: 24865687; PMCID: PMC4125260.

Wang Q, Tan MT, Keegan BP, **Barry MA**, Heffernan MJ. "Time course study of the antigen-specific immune response to a PLGA microparticle vaccine formulation". *Biomaterials*. 2014;35(29):8385-93.PMID: 24986256.

Chiang DY, Kongchan N, **Beavers DL**, Alsina KM, Voigt N, Neilson JR, Jakob H, Martin JF, Dobrev D, Wehrens XH, Li N. "Loss of microRNA-106b-25 cluster promotes atrial fibrillation by enhancing ryanodine receptor type-2 expression and calcium release". *Circulation Arrhythmia and electrophysiology*. 2014;7(6):1214-22.PMID: 25389315; PMCID: PMC4270890.

Wang W, Landstrom AP, Wang Q, Munro ML, **Beavers D**, Ackerman MJ, Soeller C, Wehrens XH. "Reduced junctional Na⁺/Ca²⁺-exchanger activity contributes to sarcoplasmic reticulum Ca²⁺ leak in junctophilin-2-deficient mice". *American journal of physiology Heart and circulatory physiology*. 2014;307(9):H1317-26.PMID: 25193470; PMCID: PMC4217007.

Beavers DL, Landstrom AP, Chiang DY, Wehrens XH. "Emerging roles of junctophilin-2 in the heart and implications for cardiac diseases". *Cardiovascular research*. 2014;103(2):198-205.PMID: 24935431.

Landstrom AP, **Beavers DL**, Wehrens XH. "The junctophilin family of proteins: from bench to bedside". *Trends in molecular medicine*. 2014;20(6):353-62.PMID: 24636942; PMCID: PMC4041816.

Chiang DY, Lebesgue N, **Beavers DL**, Alsina KM, Damen JM, Voigt N, Dobrev D, Wehrens XH, Scholten A. "Alterations in the interactome of serine/threonine protein phosphatase type-1 in atrial fibrillation patients". *Journal of the American College of Cardiology*. 2015;65(2):163-73.PMID: 25593058.

Boone PM, Yuan B, Campbell IM, Scull JC, Withers MA, Baggett BC, Beck CR, Shaw CJ, Stankiewicz P, Moretti P, Goodwin WE, Hein N, Fink JK, Seong MW, Seo SH, Park SS, Karbassi ID, Batish SD, Ordonez-Ugalde A, Quintans B, Sobrido MJ, Stemmler S, Lupski JR. "The Alu-rich genomic architecture of SPAST predisposes to diverse and functionally distinct disease-associated CNV alleles". *American journal of human genetics*. 2014;95(2):143-61.PMID: 25065914; PMCID: PMC4129405.

Zernant J, Xie YA, Ayuso C, Riveiro-Alvarez R, Lopez-Martinez MA, Simonelli F, Testa F, Gorin MB, Strom SP, Bertelsen M, Rosenberg T, **Boone PM**, Yuan B, Ayyagari R, Nagy PL, Tsang SH, Gouras P, Collison FT, Lupski JR, Fishman GA, Allikmets R. "Analysis of the ABCA4 genomic locus in Stargardt disease". *Human molecular genetics*. 2014;23(25):6797-806.PMID: 25082829; PMCID: PMC4245042.

Reimer J, Froudarakis E, **Cadwell CR**, Yatsenko D, Denfield GH, Tolias AS. "Pupil fluctuations track fast switching of cortical states during quiet wakefulness". *Neuron*. 2014;84(2):355-62.PMID: 25374359; PMCID: PMC4323337.

Ecker AS, Berens P, Cotton RJ, Subramanian M, Denfield GH, **Cadwell CR**, Smirnakis SM, Bethge M, Tolias AS. "State dependence of noise correlations in macaque primary visual cortex". *Neuron*. 2014;82(1):235-48.PMID: 24698278; PMCID: PMC3990250.

Boone PM, Yuan B, **Campbell IM**, Scull JC, Withers MA, Baggett BC, Beck CR, Shaw CJ, Stankiewicz P, Moretti P, Goodwin WE, Hein N, Fink JK, Seong MW, Seo SH, Park SS, Karbassi ID, Batish SD, Ordonez-Ugalde A, Quintans B, Sobrido MJ, Stemmler S, Lupski JR. "The Alu-rich genomic architecture of SPAST predisposes to diverse and functionally distinct disease-associated CNV alleles". *American journal of human genetics*. 2014;95(2):143-61.PMID: 25065914; PMCID: PMC4129405.

Campbell IM, Yuan B, Robberecht C, Pfundt R, Szafranski P, McEntagart ME, Nagamani SC, Erez A, Bartnik M, Wisniewiecka-Kowalik B, Plunkett KS, Pursley AN, Kang SH, Bi W, Lalani SR, Bacino CA, Vast M, Marks K, Patton M,

Medical Scientist Training Program

Publications 2014-2015

Olofsson P, Patel A, Veltman JA, Cheung SW, Shaw CA, Vissers LE, Vermeesch JR, Lupski JR, Stankiewicz P. "Parental somatic mosaicism is underrecognized and influences recurrence risk of genomic disorders". *American journal of human genetics*. 2014;95(2):173-82.PMID: 25087610; PMCID: PMC4129404.

Campbell IM, Stewart JR, James RA, Lupski JR, Stankiewicz P, Olofsson P, Shaw CA. "Parent of origin, mosaicism, and recurrence risk: probabilistic modeling explains the broken symmetry of transmission genetics". *American journal of human genetics*. 2014;95(4):345-59.PMID: 25242496; PMCID: PMC4185125.

Campbell IM, James RA, Chen ES, Shaw CA. "NetComm: a network analysis tool based on communicability". *Bioinformatics*. 2014;30(23):3387-9.PMID: 25123899; PMCID: PMC4274347.

Campbell IM, Gambin T, Dittwald P, Beck CR, Shuvarikov A, Hixson P, Patel A, Gambin A, Shaw CA, Rosenfeld JA, Stankiewicz P. "Human endogenous retroviral elements promote genome instability via non-allelic homologous recombination". *BMC biology*. 2014;12:74.PMID: 25246103; PMCID: PMC4195946.

Karaca E, Weitzer S, Pehlivan D, Shiraishi H, Gogakos T, Hanada T, Jhangiani SN, Wiszniewski W, Withers M, **Campbell IM**, Erdin S, Isikay S, Franco LM, Gonzaga-Jauregui C, Gambin T, Gelowani V, Hunter JV, Yesil G, Koparir E, Yilmaz S, Brown M, Briskin D, Hafner M, Morozov P, Farazi TA, Bernreuther C, Glatzel M, Trattng S, Friske J, Kronnerwetter C, Bainbridge MN, Gezdirici A, Seven M, Muzny DM, Boerwinkle E, Ozen M, Clausen T, Tuschl T, Yuksel A, Hess A, Gibbs RA, Martinez J, Penninger JM, Lupski JR. "Human CLP1 mutations alter tRNA biogenesis, affecting both peripheral and central nervous system function". *Cell*. 2014;157(3):636-50.PMID: 24766809; PMCID: PMC4146440.

Bayer DK, Martinez CA, Sorte HS, Forbes LR, Demmler-Harrison GJ, Hanson IC, Pearson NM, Noroski LM, Zaki SR, Bellini WJ, Leduc MS, Yang Y, Eng CM, Patel A, Rodningen OK, Muzny DM, Gibbs RA, **Campbell IM**, Shaw CA, Baker MW, Zhang V, Lupski JR, Orange JS, Seeborg FO, Stray-Pedersen A. "Vaccine-associated varicella and rubella infections in severe combined immunodeficiency with isolated CD4 lymphocytopenia and mutations in IL7R detected by tandem whole exome sequencing and chromosomal microarray". *Clinical and experimental immunology*. 2014;178(3):459-69.PMID: 25046553; PMCID: PMC4238873.

Shaw CA, **Campbell IM**. "Variant interpretation through Bayesian fusion of frequency and genomic knowledge". *Genome medicine*. 2015;7(1):4.PMID: 25632303; PMCID: PMC4308929.

Startek M, Szafranski P, Gambin T, **Campbell IM**, Hixson P, Shaw CA, Stankiewicz P, Gambin A. "Genome-wide analyses of LINE-LINE-mediated nonallelic homologous recombination". *Nucleic acids research*. 2015;43(4):2188-98.PMID: 25613453.

Chiang DY, Kongchan N, Beavers DL, Alsina KM, Voigt N, Neilson JR, Jakob H, Martin JF, Dobrev D, Wehrens XH, Li N. "Loss of microRNA-106b-25 cluster promotes atrial fibrillation by enhancing ryanodine receptor type-2 expression and calcium release". *Circulation Arrhythmia and electrophysiology*. 2014;7(6):1214-22.PMID: 25389315; PMCID: PMC4270890.

Yang X, Wang T, Lin X, Yue X, Wang Q, Wang G, Fu Q, Ai X, **Chiang DY**, Miyake CY, Wehrens XH, Chang J. "Genetic deletion of Rnd3/RhoE results in mouse heart calcium leakage through upregulation of protein kinase A signaling". *Circulation research*. 2015;116(1):e1-e10.PMID: 25348166; PMCID: PMC4282622.

Beavers DL, Landstrom AP, **Chiang DY**, Wehrens XH. "Emerging roles of junctophilin-2 in the heart and implications for cardiac diseases". *Cardiovascular research*. 2014;103(2):198-205.PMID: 24935431.

Chiang DY, Li N, Wang Q, Alsina KM, Quick AP, Reynolds JO, Wang G, Skapura D, Voigt N, Dobrev D, Wehrens XH. "Impaired local regulation of ryanodine receptor type 2 by protein phosphatase 1 promotes atrial fibrillation". *Cardiovascular research*. 2014;103(1):178-87.PMID: 24812280; PMCID: PMC4133595.

Chiang DY, Zhang M, Voigt N, Alsina KM, Jakob H, Martin JF, Dobrev D, Wehrens XH, Li N. "Identification of microRNA-mRNA dysregulations in paroxysmal atrial fibrillation". *International journal of cardiology*. 2015;184C:190-7.PMID: 25706326.

Chiang DY, Lebesgue N, Beavers DL, Alsina KM, Damen JM, Voigt N, Dobrev D, Wehrens XH, Scholten A. "Alterations in the interactome of serine/threonine protein phosphatase type-1 in atrial fibrillation patients". *Journal of the American College of Cardiology*. 2015;65(2):163-73.PMID: 25593058.

Pang K, Wan YW, **Choi WT**, Donehower LA, Sun J, Pant D, Liu Z. "Combinatorial therapy discovery using mixed integer linear programming". *Bioinformatics*. 2014;30(10):1456-63.PMID: 24463180; PMCID: PMC4016706.

Medical Scientist Training Program

Publications 2014-2015

Froudarakis E, Berens P, Ecker AS, **Cotton RJ**, Sinz FH, Yatsenko D, Saggau P, Bethge M, Tolias AS. "Population code in mouse V1 facilitates readout of natural scenes through increased sparseness". *Nature neuroscience*. 2014;17(6):851-7.PMID: 24747577; PMCID: PMC4106281.

Ecker AS, Berens P, **Cotton RJ**, Subramaniam M, Denfield GH, Cadwell CR, Smirnakis SM, Bethge M, Tolias AS. "State dependence of noise correlations in macaque primary visual cortex". *Neuron*. 2014;82(1):235-48.PMID: 24698278; PMCID: PMC3990250.

Challen GA, Sun D, Mayle A, Jeong M, Luo M, Rodriguez B, Mallaney C, Celik H, Yang L, Xia Z, **Cullen S**, Berg J, Zheng Y, Darlington GJ, Li W, Goodell MA. "Dnmt3a and Dnmt3b have overlapping and distinct functions in hematopoietic stem cells". *Cell stem cell*. 2014;15(3):350-64.PMID: 25130491; PMCID: PMC4163922.

Cullen SM, Goodell MA. "Dynamic DNA methylation discovered during HSC differentiation Comment on: Lipka DB, et al. Identification of DNA methylation changes at cisregulatory elements during early steps of HSC differentiation using tagmentation-based whole genome bisulfite sequencing. *Cell Cycle* 2014; 13(22):3476-87; <http://dx.doi.org/10.4161/15384101.2014.973334>". *Cell Cycle*. 2015;14(5):693-4.PMID: 25714123.

Reimer J, Froudarakis E, Cadwell CR, Yatsenko D, **Denfield GH**, Tolias AS. "Pupil fluctuations track fast switching of cortical states during quiet wakefulness". *Neuron*. 2014;84(2):355-62.PMID: 25374359; PMCID: PMC4323337.

Ecker AS, Berens P, Cotton RJ, Subramaniam M, **Denfield GH**, Cadwell CR, Smirnakis SM, Bethge M, Tolias AS. "State dependence of noise correlations in macaque primary visual cortex". *Neuron*. 2014;82(1):235-48.PMID: 24698278; PMCID: PMC3990250.

Fu D, Yu Y, **Folick A**, Currie E, Farese RV, Jr., Tsai TH, Xie XS, Wang MC. "In vivo metabolic fingerprinting of neutral lipids with hyperspectral stimulated Raman scattering microscopy". *Journal of the American Chemical Society*. 2014;136(24):8820-8.PMID: 24869754; PMCID: PMC4073829.

Folick A, Oakley HD, Yu Y, Armstrong EH, Kumari M, Sanor L, Moore DD, Ortlund EA, Zechner R, Wang MC. "Aging. Lysosomal signaling molecules regulate longevity in *Caenorhabditis elegans*". *Science*. 2015;347(6217):83-6.PMID: 25554789.

Garcia I, Quast KB, Huang L, Herman AM, Selever J, Deussing JM, Justice NJ, Arenkiel BR. "Local CRH signaling promotes synaptogenesis and circuit integration of adult-born neurons". *Developmental cell*. 2014;30(6):645-59.PMID: 25199688; PMCID: PMC4182170.

Garcia I, Bhullar PK, Tepe B, Ortiz-Guzman J, Huang L, Herman AM, Chaboub L, Deneen B, Justice NJ, Arenkiel BR. "Local corticotropin releasing hormone (CRH) signals to its receptor CRHR1 during postnatal development of the mouse olfactory bulb". *Brain structure & function*. 2014.PMID: 25224546.

Herman AM, Huang L, Murphey DK, **Garcia I**, Arenkiel BR. "Cell type-specific and time-dependent light exposure contribute to silencing in neurons expressing Channelrhodopsin-2". *eLife*. 2014;3:e01481.PMID: 24473077; PMCID: PMC3904216.

Chaluvally-Raghavan P, Zhang F, Pradeep S, **Hamilton MP**, Zhao X, Rupaimoole R, Moss T, Lu Y, Yu S, Pecot CV, Aure MR, Peugeot S, Rodriguez-Aguayo C, Han HD, Zhang D, Venkatanarayan A, Krohn M, Kristensen VN, Gagea M, Ram P, Liu W, Lopez-Berestein G, Lorenzi PL, Borresen-Dale AL, Chin K, Gray J, Dusetti NJ, McGuire SE, Flores ER, Sood AK, Mills GB. "Copy number gain of hsa-miR-569 at 3q26.2 leads to loss of TP53INP1 and aggressiveness of epithelial cancers". *Cancer cell*. 2014;26(6):863-79.PMID: 25490449; PMCID: PMC4261159.

Cerne JZ, Hartig SM, **Hamilton MP**, Chew SA, Mitsiades N, Poulaki V, McGuire SE. "Protein kinase C inhibitors sensitize GNAQ mutant uveal melanoma cells to ionizing radiation". *Investigative ophthalmology & visual science*. 2014;55(4):2130-9.PMID: 24595385; PMCID: PMC3979518.

Howard JM, Nuguid JM, Ngole D, Nguyen H. "Tcf3 expression marks both stem and progenitor cells in multiple epithelia". *Development*. 2014;141(16):3143-52.PMID: 25038042; PMCID: PMC4197553.

Miao Q, Ku AT, Nishino Y, **Howard JM**, Rao AS, Shaver TM, Garcia GE, Le DN, Karlin KL, Westbrook TF, Poli V, Nguyen H. "Tcf3 promotes cell migration and wound repair through regulation of lipocalin 2". *Nature communications*. 2014;5:4088.PMID: 24909826; PMCID: PMC4052366.

Medical Scientist Training Program

Publications 2014-2015

Karlin KL, Mondal G, Hartman JK, Tyagi S, Kurley SJ, Bland CS, **Hsu TY**, Renwick A, Fang JE, Migliaccio I, Callaway C, Nair A, Dominguez-Vidana R, Nguyen DX, Osborne CK, Schiff R, Yu-Lee LY, Jung SY, Edwards DP, Hilsenbeck SG, Rosen JM, Zhang XH, Shaw CA, Couch FJ, Westbrook TF. "The oncogenic STP axis promotes triple-negative breast cancer via degradation of the REST tumor suppressor". *Cell reports*. 2014;9(4):1318-32.PMID: 25453754.

Terunuma A, Putluri N, Mishra P, Mathe EA, Dorsey TH, Yi M, Wallace TA, Issaq HJ, Zhou M, Killian JK, Stevenson HS, Karoly ED, Chan K, Samanta S, Prieto D, **Hsu TY**, Kurley SJ, Putluri V, Sonavane R, Edelman DC, Wulff J, Starks AM, Yang Y, Kittles RA, Yfantis HG, Lee DH, Ioffe OB, Schiff R, Stephens RM, Meltzer PS, Veenstra TD, Westbrook TF, Sreekumar A, Ambs S. "MYC-driven accumulation of 2-hydroxyglutarate is associated with breast cancer prognosis". *The Journal of clinical investigation*. 2014;124(1):398-412.PMID: 24316975; PMCID: PMC3871244.

Katsonis P*, **Koire A***, Wilson SJ*, Hsu TK, Lua RC, Wilkins AD, Lichtarge O. "Single nucleotide variations: biological impact and theoretical interpretation". *Protein science : a publication of the Protein Society*. 2014;23(12):1650-66.PMID: 25234433; PMCID: PMC4253807.

Kruse RL, Kramer JR, Tyson GL, Duan Z, Chen L, El-Serag HB, Kanwal F. "Clinical outcomes of hepatitis B virus coinfection in a United States cohort of hepatitis C virus-infected patients". *Hepatology*. 2014;60(6):1871-8.PMID: 25065513; PMCID: PMC4245372.

Campeau PM, Kasperaviciute D, **Lu JT**, Burrage LC, Kim C, Hori M, Powell BR, Stewart F, Felix TM, van den Ende J, Wisniewska M, Kayserili H, Rump P, Nampoothiri S, Aftimos S, Mey A, Nair LD, Begleiter ML, De Bie I, Meenakshi G, Murray ML, Repetto GM, Golabi M, Blair E, Male A, Giuliano F, Kariminejad A, Newman WG, Bhaskar SS, Dickerson JE, Kerr B, Banka S, Giltay JC, Wiczorek D, Tostevin A, Wiszniewska J, Cheung SW, Hennekam RC, Gibbs RA, Lee BH, Sisodiya SM. "The genetic basis of DOORS syndrome: an exome-sequencing study". *Lancet neurology*. 2014;13(1):44-58.PMID: 24291220; PMCID: PMC3895324.

Lu JT, Campeau PM, Lee BH. "Genotype-phenotype correlation--promiscuity in the era of next-generation sequencing". *The New England journal of medicine*. 2014;371(7):593-6.PMID: 25119605.

Rajagopal A, Braslavsky D, **Lu JT**, Kleppe S, Clement F, Cassinelli H, Liu DS, Liern JM, Vallejo G, Bergada I, Gibbs RA, Campeau PM, Lee BH. "Exome sequencing identifies a novel homozygous mutation in the phosphate transporter SLC34A1 in hypophosphatemia and nephrocalcinosis". *The Journal of clinical endocrinology and metabolism*. 2014;99(11):E2451-6.PMID: 25050900; PMCID: PMC4223446.

Murali C, Lu JT, Jain M, Liu DS, Lachman R, Gibbs RA, Lee BH, Cohn D, Campeau PM. "Diagnosis of ALG12-CDG by exome sequencing in a case of severe skeletal dysplasia". *Molecular genetics and metabolism reports*. 2014;1:213-9.PMID: 25019053; PMCID: PMC4088274.

Hamilton JD, **Lin J**, Ison C, Leeds NE, Jackson EF, Fuller GN, Ketonen L, Kumar AJ. "Dynamic Contrast-Enhanced Perfusion Processing for Neuroradiologists: Model-Dependent Analysis May Not Be Necessary for Determining Recurrent High-Grade Glioma versus Treatment Effect". *AJNR American journal of neuroradiology*. 2014.PMID: 25500312.

Polito VA*, Li H*, **Martini-Stoica H**, Wang B, Yang L, Xu Y, Swartzlander DB, Palmieri M, di Ronza A, Lee VM, Sardiello M, Ballabio A, Zheng H. "Selective clearance of aberrant tau proteins and rescue of neurotoxicity by transcription factor EB". *EMBO molecular medicine*. 2014;6(9):1142-60.PMID: 25069841; PMCID: PMC4197862.

Maksimovic S, Nakatani M, Baba Y, **Nelson AM**, Marshall KL, Wellnitz SA, Firozi P, Woo SH, Ranade S, Patapoutian A, Lumpkin EA. "Epidermal Merkel cells are mechanosensory cells that tune mammalian touch receptors". *Nature*. 2014;509(7502):617-21.PMID: 24717432; PMCID: PMC4097312.

Ngo MC, Ando J, Leen AM, Ennamuri S, Lapteva N, Vera JF, Min-Venditti A, Mims MP, Heslop HE, Bollard CM, Gottschalk S, Rooney CM. "Complementation of antigen-presenting cells to generate T lymphocytes with broad target specificity". *J Immunother*. 2014;37(4):193-203.PMID: 24714353; PMCID: PMC4133102.

Cripe TP, **Ngo MC**, Geller JI, Louis CU, Currier MA, Racadio JM, Towbin AJ, Rooney CM, Pelusio A, Moon A, Hwang TH, Burke JM, Bell JC, Kirn DH, Breitbach CJ. "Phase 1 Study of Intratumoral Pexa-Vec (JX-594), an Oncolytic and Immunotherapeutic Vaccinia Virus, in Pediatric Cancer Patients". *Molecular therapy : the journal of the American Society of Gene Therapy*. 2015;23(3):602-8.PMID: 25531693.

Medical Scientist Training Program

Publications 2014-2015

- Lam S, Sung J, Cruz C, Castillo-Caro P, **Ngo M**, Garrido C, Kuruc J, Archin N, Rooney C, Margolis D, Bollard C. "Broadly-specific Cytotoxic T Cells Targeting Multiple HIV Antigens Are Expanded From HIV+ Patients: Implications for Immunotherapy". *Molecular therapy : the journal of the American Society of Gene Therapy*. 2015;23(2):387-95.PMID: 25366030.
- Ramachandran PV**, Mutlu AS, Wang MC. "Label-free biomedical imaging of lipids by stimulated Raman scattering microscopy". *Current protocols in molecular biology / edited by Frederick M Ausubel [et al]*. 2015;109:30 3 1- 3 17.PMID: 25559108.
- Rochat RH**, Hecksel CW, Chiu W. "Cryo-EM techniques to resolve the structure of HSV-1 capsid-associated components". *Methods Mol Biol*. 2014;1144:265-81.PMID: 24671690.
- Seilheimer RL**, Rosenberg A, Angelaki DE. "Models and processes of multisensory cue combination". *Current opinion in neurobiology*. 2014;25:38-46.PMID: 24709599; PMCID: PMC3980502.
- Henslee AM, Spicer PP, **Shah SR**, Tataru AM, Kasper FK, Mikos AG, Wong ME. "Use of porous space maintainers in staged mandibular reconstruction". *Oral and maxillofacial surgery clinics of North America*. 2014;26(2):143-9.PMID: 24794263.
- Shah SR**, Henslee AM, Spicer PP, Yokota S, Petrichenko S, Allahabadi S, Bennett GN, Wong ME, Kasper FK, Mikos AG. "Effects of antibiotic physicochemical properties on their release kinetics from biodegradable polymer microparticles". *Pharmaceutical research*. 2014;31(12):3379-89.PMID: 24874603; PMCID: PMC4225168.
- Henslee AM, **Shah SR**, Wong ME, Mikos AG, Kasper FK. "Degradable, antibiotic releasing poly(propylene fumarate)-based constructs for craniofacial space maintenance applications". *Journal of biomedical materials research Part A*. 2015;103(4):1485-97.PMID: 25046733.
- Needham CJ, **Shah SR**, Dahlin RL, Kinard LA, Lam J, Watson BM, Lu S, Kasper FK, Mikos AG. "Osteochondral tissue regeneration through polymeric delivery of DNA encoding for the SOX trio and RUNX2". *Acta biomaterialia*. 2014;10(10):4103-12.PMID: 24854956; PMCID: PMC4160371.
- Tataru A, **Shah SR**, Sotoudeh M, Henslee AM, Wong ME, Ratcliffe A, Kasper FK, Mikos aAG. Effects of Electron Beam Sterilization on Mechanical Properties of a Porous Polymethylmethacrylate Space Maintenance Device. *Journal of Medical Devices*, 2015.
- Vo TN, Ekenseair AK, **Spicer PP**, Watson BM, Tzouanas SN, Roh TT, Mikos AG. "In vitro and in vivo evaluation of self-mineralization and biocompatibility of injectable, dual-gelling hydrogels for bone tissue engineering". *Journal of controlled release : official journal of the Controlled Release Society*. 2014.PMID: 25483428.
- Henslee AM, **Spicer PP**, Shah SR, Tataru AM, Kasper FK, Mikos AG, Wong ME. "Use of porous space maintainers in staged mandibular reconstruction". *Oral and maxillofacial surgery clinics of North America*. 2014;26(2):143-9.PMID: 24794263.
- Shah SR, Henslee AM, **Spicer PP**, Yokota S, Petrichenko S, Allahabadi S, Bennett GN, Wong ME, Kasper FK, Mikos AG. "Effects of antibiotic physicochemical properties on their release kinetics from biodegradable polymer microparticles". *Pharmaceutical research*. 2014;31(12):3379-89.PMID: 24874603; PMCID: PMC4225168.
- Tataru AM, Kretlow JD, **Spicer PP**, Lu S, Lam J, Liu W, Cao Y, Liu G, Jackson JD, Yoo JJ, Atala A, van den Beucken JJ, Jansen JA, Kasper FK, Ho T, Demian N, Miller MJ, Wong ME, Mikos AG. "Autologously Generated Tissue-Engineered Bone Flaps for Reconstruction of Large Mandibular Defects in an Ovine Model". *Tissue engineering Part A*. 2015.PMID: 25603924.
- Tataru AM**, Wong ME, Mikos AG. "In vivo bioreactors for mandibular reconstruction". *Journal of dental research*. 2014;93(12):1196-202.PMID: 25139360.
- Tataru AM**, Lipner JH, Das R, Kim HM, Patel N, Ntouvali E, Silva MJ, Thomopoulos S. "The role of muscle loading on bone (Re)modeling at the developing enthesis". *PLoS one*. 2014;9(5):e97375.PMID: 24847982; PMCID: PMC4029607.
- Santoro M, **Tataru AM**, Mikos AG. "Gelatin carriers for drug and cell delivery in tissue engineering". *Journal of controlled release : official journal of the Controlled Release Society*. 2014;190:210-8.PMID: 24746627; PMCID: PMC4142078.
- Henslee AM, Spicer PP, Shah SR, **Tataru AM**, Kasper FK, Mikos AG, Wong ME. "Use of porous space maintainers in staged mandibular reconstruction". *Oral and maxillofacial surgery clinics of North America*. 2014;26(2):143-9.PMID: 24794263.

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Publications 2014-2015

Tatara A, Ratcliffe A, Wong ME, Kasper FK, Mikos aAG. Biomaterials in Regenerative Medicine: Considerations in Early Process Development. *Translational Regenerative Medicine*, 2015.

Tatara AM, Kretlow JD, Spicer PP, Lu S, Lam J, Liu W, Cao Y, Liu G, Jackson JD, Yoo JJ, Atala A, van den Beucken JJ, Jansen JA, Kasper FK, Ho T, Demian N, Miller MJ, Wong ME, Mikos AG. "Autologously Generated Tissue-Engineered Bone Flaps for Reconstruction of Large Mandibular Defects in an Ovine Model". *Tissue engineering Part A*. 2015.PMID: 25603924.

Tatara A, Shah SR, Sotoudeh M, Henslee AM, Wong ME, Ratcliffe A, Kasper FK, Mikos aAG. Effects of Electron Beam Sterilization on Mechanical Properties of a Porous Polymethylmethacrylate Space Maintenance Device. *Journal of Medical Devices*, 2015.

Watson BM, Kasper FK, Engel PS, Mikos AG. "Synthesis and characterization of injectable, biodegradable, phosphate-containing, chemically cross-linkable, thermoresponsive macromers for bone tissue engineering". *Biomacromolecules*. 2014;15(5):1788-96.PMID: 24758298; PMCID: PMC4025585.

Needham CJ, Shah SR, Dahlin RL, Kinard LA, Lam J, **Watson BM**, Lu S, Kasper FK, Mikos AG. "Osteochondral tissue regeneration through polymeric delivery of DNA encoding for the SOX trio and RUNX2". *Acta biomaterialia*. 2014;10(10):4103-12.PMID: 24854956; PMCID: PMC4160371.

Vo TN, Ekenseair AK, Spicer PP, **Watson BM**, Tzouanas SN, Roh TT, Mikos AG. "In vitro and in vivo evaluation of self-mineralization and biocompatibility of injectable, dual-gelling hydrogels for bone tissue engineering". *Journal of controlled release : official journal of the Controlled Release Society*. 2014.PMID: 25483428.

Watson BM, Kasper FK, Mikos AG. "Phosphorous-containing polymers for regenerative medicine". *Biomed Mater*. 2014;9(2):025014.PMID: 24565855; PMCID: PMC4005627.

Wiltz DC, Han RI, **Wilson RL**, Kumar A, Morrisett JD, Grande-Allen KJ. "Differential Aortic and Mitral Valve Interstitial Cell Mineralization and the Induction of Mineralization by Lysophosphatidylcholine". *Cardiovascular engineering and technology*. 2014;5(4):371-83.PMID: 25419248; PMCID: PMC4235965.

Challen GA, Sun D, Mayle A, Jeong M, Luo M, Rodriguez B, Mallaney C, Celik H, **Yang L**, Xia Z, Cullen S, Berg J, Zheng Y, Darlington GJ, Li W, Goodell MA. "Dnmt3a and Dnmt3b have overlapping and distinct functions in hematopoietic stem cells". *Cell stem cell*. 2014;15(3):350-64.PMID: 25130491; PMCID: PMC4163922.

Mayle A, **Yang L**, Rodriguez B, Zhou T, Chang E, Curry CV, Challen GA, Li W, Wheeler D, Rebel VI, Goodell MA. "Dnmt3a loss predisposes murine hematopoietic stem cells to malignant transformation". *Blood*. 2015;125(4):629-38.PMID: 25416277.

Yang L*, Rau R*, Goodell MA. "DNMT3A in haematological malignancies". *Nature Reviews Cancer*. 2015;15(3):152-65.PMID: 25693834.