

Baylor College of Medicine
MD/PhD Program
Journal Publications by Students
Academic Year 2005-2006

Eichers ER, **Abd-El-Barr M**, Paylor R, Lewis RA, Bi W, Lin X, Stockton DW, Wu SM, Lindsay E, Justice MJ, Beales PL, Katsanis N, Lupski JR. Age-dependent penetrance and variable expressivity of the human BBS phenotype in the *Bbs4* null mouse. *Hum Genet.* 2006 Sep; 120(2): 211-26.

Rahman M, **Abd-El-Barr M**, Mack V, Thaczyk T, Sokolov K, Richards-Kortum R, Descour M. "Optical imaging of cervical pre-cancers with structured illumination: An integrated approach," *Gynecologic Oncology*, 2005 Dec; 99(3 Suppl 1): S112-5.

Carvounis PE, **Abd-El-Barr M**, Albin TA, Holz ER. Electroretinographic Effects of an Intravitreal Injection of Triamcinolone in Rabbit Retina. *Archives of Ophthalmology* 2006, Letter, 2006 Nov; 124(11): 1666.

Bansal V, Patel S, Saggau P. An Addressable Confocal Microscope for Functional Imaging of Neuronal Activity. *Journal of Biomedical Optics.* 2006 May-Jun; 11(3): 34003.

Jafar-Nejad H, Andrews HK, Acar M, **Bayat V**, Wirtz-Peitz F, Mehta SQ, Knoblich JA, and Bellen HJ Sec15, a component of the exocyst, promotes Notch signaling during the asymmetric division of *Drosophila* sensory organ precursors. *Developmental Cell.* 2005 Sep; 9(3): 351-63.

Bien-Willner GA, Stankiewicz P, Lupski JR, Northrup JK, Velagaleti GVN. Interphase FISH Screening for the LCR-Mediated Common Rearrangement of Isochromosome 17q in Primary Myelofibrosis. *Am J Hematol* 2005 Aug; 79(4): 309-13.

Velagaleti GV* and **Bien-Willner GA***, Northrup JK, Lockhart LH, Hawkins JC, Jalal SM, Withers M, Lupski JR, Stankiewicz P. Position Effects Due to Chromosome Breakpoints that Map ~900 Kb Upstream and ~1.3 Mb Downstream of SOX9 in Two Patients with Campomelic Dysplasia (2005) *Am J Hum Genet* 2005 Apr; 76(4): 652-62. (* equal contribution)

Chang E, Thekkek N, Yu WW, Colvin VL, Drezek R, "Significance of Evaluating Quantum Dot Cytotoxicity Based on Intracellular Exposure." *Small.* 2006 Dec; 2(12): 1412-7.

Chang E, Sun J, Miller JS, Yu WW, Colvin VL, West JL, and Drezek R. "Protease-Activated Quantum Dot Probes." *International Society for Optical Engineering (SPIE) 2006 Photonics Europe Conference Proceedings.* April 2006, Strasbourg, France.

Chang E, Yu WW, Colvin VL, Drezek R. Quantifying the Influence of Surface Coatings on Quantum Dot Uptake in Cells. *J. of Biomedical Nanotechnology.* 2005 Dec; 1(4): 397-401.

Chang E, Sun J, Miller JS, Yu WW, Colvin VL, Drezek R, West JL. "Protease-Activated Quantum Dot Probes." *Biochemical and Biophysical Research Communication* 2005 Sep 9; 334(4): 1317-21.

Loo C, Hirsch L, Lee M, **Chang E**, West J, Halas N, Drezek R. Gold Nanoshell Bioconjugates for Molecular Imaging in Living Cells. *Optics Letters* 2005 May 1; 30(9): 1012-4.

- Chwang WB**, O’Riordan KJ, Levenson JM, Sweatt JD. “ERK/MAPK regulates hippocampal histone phosphorylation following contextual fear conditioning.” *Learn Mem.* 2006 May-Jun; 13(3): 322-8.
- Zaman K, Carraro S, **Doherty JE**, Henderson EM, Lendermon E, Liu L, Verghese G, Zigler M, Ross M, Park E, Palmer L, Doctor A, Stampler J, Gaston B. A Novel Class Of Compounds That Increase CFTR Expression And Maturation In Epithelial Cells. *Mol Pharm.* 2006 Oct; 70(4): 1435-42.
- Carraro S, **Doherty J**, Zaman K, Gainov I, Turner R, Vaughan J, Hunt JF, Marquez J, Gaston B. S-nitrosothiols regulate cell-surface pH buffering by airway epithelial cells during the human immune response to rhinovirus. *Am J Physiol Lung Cell Mol Physiol.* 2006 May; 290(5): L827-32.
- Doctor A, Platt R, Sheram ML, Eischeid A, McMahon T, Maxey T, **Doherty J**, Axelrod M, Kline J, Gurka M, Gow A, Gaston B. Hemoglobin conformation couples erythrocyte S-nitrosothiol content to O₂ gradients. *Proc Natl Acad Sci U S A.* 2005 Apr 19; 102(16): 5709-14.
- Eleswarapu SV**, Leipzig ND, Athanasiou KA: Gene expression of single articular chondrocytes. *Cell and Tissue Research.* 2007 Jan; 327(1): 43-54.
- Leipzig ND, **Eleswarapu SV**, Athanasiou KA: The effects of TGF-beta1 and IGF-I on the biomechanics and cytoskeleton of single chondrocytes. *Osteoarthritis and Cartilage.* 2006 Dec; 14(12): 1227-36.
- Gatchel JR** and Zoghbi HY. Diseases of Unstable Repeat Expansion: Pathogenic Mechanisms and Unifying Principles. *Nature Reviews Genetics.* 2005 Oct; 6(10): 743-755.
- Glass DA 2nd** and Karsenty G. Molecular Bases of the Regulation of Bone Remodeling by the Canonical Wnt Signaling Pathway. *Curr Top Dev Biol.* 2006; 73: 43-84.
- Lobov IB, Rao S, Carroll TJ, Vallance JE, Ito M, Ondr JK, Kurup S, **Glass DA 2nd**, Patel MS, Shu W, Morrissey EE, McMahon AP, Karsenty G, Lang RA. Wnt7b mediates macrophage-induced programmed cell death in patterning of the vasculature. *Nature.* 2005 Sep 15; 437(7057): 417-21.
- Glass D. 2nd**, Bialek P, Ahn JD, Starbuck M, Patel MS, Clevers H, Taketo MM, Long F, McMahon AP, Lang RA, Karsenty G. Canonical Wnt Signaling in Differentiate Osteoblasts Controls Osteoclast Differentiation. *Dev Cell.* 2005 May; 8(5): 751-64.
- Hoben G** and Athanasiou KA. Meniscal repair with fibrocartilage engineering. *Sports Med Arthrosc.* 2006 Sep; 14(3): 129-37.
- Shieh A, **Koay E**, Athanasiou K: Strain dependent recovery behavior of single chondrocytes, *Biomech Model Mechanobiol* 2006 Jun; 5(2-3): 172-9.
- Loo C**, Lowery A, West J, Halas N, Drezek R. Immunotargeted Nanoshells for Integrated Cancer Imaging and Therapy. *Nanoletters.* 2005 Apr; 5(4): 709-11.
- Loo C**, Lin A, Hirsch L, Lee M, Barton J, Halas N, West J, Drezek R. Chapter 12: Diagnostic and Therapeutic Applications of Metal Nanoshells. *Nanofabrication for Biomedical Applications.* 2005; Wiley-VCH, pp. 327-342.

- Verstreken P, **Ly C**, Venken KJT, Koh TW, Zhou Y, Bellen HJ. Synaptic mitochondria are critical for mobilization of reserve pool vesicles at Drosophila neuromuscular junctions. *Neuron*. 2005 Aug 4; 47(3): 365-78.
- McCurdy M**, Bakhirkin Y, and Tittel F. Quantum cascade laser-based integrated cavity output spectroscopy of exhaled nitric oxide. *Applied Physics B*. 2006 Nov; 85(2-3): 445-52.
- Wysocki G, **McCurdy M**, So S, Roller C, Tittel F. Exhaled human breath analysis with quantum cascade laser-based gas sensors. *Breath Analysis for Clinical Diagnosis and Therapeutic Monitoring*. Amman A and Smith D, eds. Hackensack, NJ: World Scientific Publishing Co., 2005.
- Wysocki G, **McCurdy M**, So S, Weidmann D, Roller C, Curl R, Tittel F. Pulsed quantum cascade laser based sensor for trace-gas detection of carbonyl sulfide. *Applied Optics*. 2004 Nov 10; 43(32): 6040-6.
- Lee SH, **Nishino M**, Mazumdar T, Garcia GE, Galfione M, Lee FL, Lee CL, Liang A, Kim J, Feng L, Eissa NT, Lin SH, and Yu-Lee LY. Antiangiogenic effect of 16-kDa prolactin involves the inhibition of the IRF-1 pathway that regulates iNOS expression. *Cancer Research*. 2005 Sep 1; 65(17): 7984-92.
- Yang Y, Yang F, Xiong Z, Yan Y, Wang X, **Nishino M**, Mirkovic D, Nguyen J, Wang H, Yang XF. An N-terminal region of translationally controlled tumor protein is required for its antiapoptotic activity. *Oncogene*. 2004 Apr 1; 23(14): 2499-506.
- Deng Y, Tarassishin L, Kallhoff V, **Peethumnongsin E**, Wu L, Li Y-M, Zheng H: Deletion of presenilin 1 hydrophilic loop sequence leads to impaired γ -secretase activity and exacerbated amyloid pathology. *Journal of Neuroscience*. 2006 Apr 5; 26(14): 3845-54.
- Reddy GD** and Saggau P. Fast Three-Dimensional Scanning Scheme with Acousto-Optic Deflectors. *Journal of Biomedical Optics*. 2005 Nov-Dec; 10(6): 064038.
- England C, Kowalczyk T, Dagan A, Daza RAM, Lau C, **Rose MF**, Hevner RF. (2006) Unipolar Brush Cells of the Cerebellum are Produced in the Rhombic Lip and Migrate through Developing White Matter. *Journal of Neuroscience*. 2006; 26(36): 9184-95.
- Chizhikov VV, Lindgren A, Currle DS, **Rose MF**, Monuki KS, Millen KJ. The roof plate regulates cerebellar cell-type specification and proliferation.. *Development*. 2006 Aug; 133(15): 2793-804.
- Young JI, Hong EP, Castle JC, Crespo-Barreto J, Bowman AB, **Rose MF**, Kang D, Richman R, Johnson JM, Berget S, Zoghbi HY. Regulation of RNA splicing by the methylation-dependent transcriptional repressor MeCP2. *Proceedings of the National Academy of Sciences*. 2005 Dec 6; 102(49): 17551-8.
- Wang VY***, **Rose MF***, Zoghbi HY. Math1 expression redefines the rhombic lip and reveals novel lineages within the brainstem and cerebellum. *Neuron*. 2005 Oct 6; 48(1): 31-43. (*equal contribution, with cover)

Baylor College of Medicine
MD/PhD Program Student Publications
2005-2006

Tsuda H, Jafar-Nejad H, Patel AJ, Sun Y, Chen HK, **Rose MF**, Venken KJT, Botas J, Orr HT, Bellen HJ, Zoghbi HY. The Gfi-1/Senseless interaction with mammalian/Drosophila Ataxin-1 protein mediates neurodegeneration in Spinocerebellar Ataxia 1. *Cell*. 2005 Aug 26; 122(4): 633-44.

Saraf A and Mikos AG. Gene delivery strategies for cartilage tissue engineering. *Adv Drug Deliv Rev*. 2006 Jul 7; 58(4): 592-603.

Scott CC and Athanasiou KA. Temporal Effects of Impact on Articular Cartilage Cell Death, Gene Expression, Matrix Biochemistry, and Biomechanics. *Annals of Biomedical Engineering*. 2008 May; 36(5): 780-92.

Revell CR, Dietrich J, **Scott CC**, Luttge A, Athanasiou KA. Characterization of Fibroblast Morphology on Bioactive Surfaces Using Vertical Scanning Interferometry. *Matrix Biology*. 2006 Oct; 25(8): 523-33.

Hayman D, Blumberg TJ, **Scott CC**, Athanasiou KA. Articular Chondrocyte Isolation Methods Alter Gene Expression. *Tissue Engineering*, Sept. 12 (9):2573-81.

Scott CC and Athanasiou KA. Mechanical Impact and Articular Cartilage. *Crit Rev Biomed Eng*. 2006; 34(5): 347-78.

Scott CC and Athanasiou KA. Teaching Continuum Biomechanics: See One, Do One, Teach One. *Journal of International Engineering Education*. 2006; 22(1): 183-187.

Seto ES and Bellen HJ. Internalization is required for proper Wingless signaling in *Drosophila melanogaster*. *Journal of Cell Biology*. 2006 Apr 10; 173(1): 95-106.

Shalin SC, Hernandez CM, Dougherty MK, Morrision DK, Sweatt JD. Kinase suppressor of Ras1 compartmentalizes hippocampal signal transduction and subserves synaptic plasticity and memory formation. *Neuron* 2006 Jun 1; 50(5): 765-79.

Shalin SC, Egli R, Birnbaum S, Roth T, Levenson J, Sweatt JD. Signal transduction mechanisms in memory disorders. *Prog Brain Res*. 2006; 157: 25-41.

Weksberg, DC, Volakanakis, E, and Goodell, MA. Hematopoetic Stem Cells: Principles and Therapeutic Prospects. *Principles of Cell Therapy*. New York: Cambridge University Press, 2006.