

Zoulfia Allakhverdi, PhD, Notre Dame CHUM Research Center (7/08-present)

Peer-reviewed publications

1. Allakhverdi Z., M.R. Comeau, D.E. Smith, D. Toy, L.M. Endam, M. Desrosiers, Y.J. Liu, K.J. Howie, J.A. Denburg, G.M. Gauvreau, and G. Delespesse. CD34⁺ Hemopoietic Progenitor Cells are Potent Effectors of Allergic Inflammation. *J. Allergy Clin. Immunol.* 2009 Feb; 123(2): 472-8. Epub 2008 Dec 6.
2. Allakhverdi Z., M.R. Comeau, H.K. Jessup, and G. Delespesse. TSLP as a mediator of crosstalk between bronchial smooth muscles and mast cells. *J. Allergy Clin. Immunol.* 2009 Apr;123(4):958-60.e2.

Carolyn J. Baglole, PhD, University of Rochester (7/07-present)

Peer-reviewed publications

1. Baglole CJ, Wang T-Y, Sime PJ and Phipps RP. Cigarette smoke extract induces heme-oxygenase-1 in human lung fibroblasts. *American Journal of Respiratory and Critical Care Medicine*, Volume 175: A123, 2007.
2. Baglole CJ, Maggirwar SB, Gasiewicz TA, Thatcher TH, Sime PJ and Phipps RP. The Aryl Hydrocarbon Receptor (AhR) Regulates Lung Fibroblast Prostaglandin Production to Cigarette Smoke through the NF- κ B Family Member RelB. *American Journal of Respiratory and Critical Care Medicine*, Volume 177: A932, 2008.
3. Baglole CJ, Sime PJ and Phipps RP. Cigarette Smoke-Induced Expression of Heme Oxygenase-1 (HO-1) in Human Lung Fibroblasts is Regulated by Intracellular Glutathione. *American Journal of Respiratory and Critical Care Medicine*, Volume 177: A476, 2008.
4. Lakatos HF, Fiore CL, Gurell MN, Baglole CJ, Phipps RP and Sime PJ. PPAR γ ligands potently induce the natural anti-oxidant heme oxygenase-1 in human lung fibroblasts. *American Journal of Respiratory and Critical Care Medicine*, Volume 177: A731, 2008.
5. Thatcher TH, Baglole CJ, Phipps RP and Sime PJ. Aryl hydrocarbon receptor-deficient mice develop heightened cigarette smoke-induced emphysema associated with a loss of RelB and increased susceptibility to apoptosis. *American Journal of Respiratory and Critical Care Medicine*, Volume 177: A333, 2008.
6. Bancos, S, Bernstein S, Baglole C and Phipps RP. 15-deoxy- Δ 12, 14 -prostaglandin J₂ (15d-PGJ₂) increases oxidative stress and differentially upregulates heme oxygenase-1 (HO-1) in malignant B cells. *FASEB*, 22: 1079.5, 2008.
7. Baglole CJ, Sime PJ and Phipps RP. Transcriptional regulation of cigarette smoke-induced heme oxygenase-1 expression in human lung fibroblasts. *American Journal of Respiratory and Critical Care Medicine*, Accepted, 2009.
8. Baglole CJ, Gasiewicz TA, Phipps RP and Sime PJ. The aryl hydrocarbon receptor (AhR) exerts post-transcriptional control over cigarette smoke-induced cyclooxygenase-2 expression in pulmonary fibroblasts. *American Journal of Respiratory and Critical Care Medicine*, Accepted, 2009.
9. McMillan DH, Baglole CJ, Sime PJ and Phipps RP. RelB activation by cigarette smoke increases MnSOD expression in human lung fibroblasts. *American Journal of Respiratory and Critical Care Medicine*, Accepted, 2009.
10. Bertram KM, Baglole CJ, Phipps RP and Libby RT. Cigarette smoke induces oxidative stress and apoptosis in human retinal pigment epithelial cells. *Association for Research in Vision and Ophthalmology (ARVO)*, In press, 2009.

Xiaoyong Bao, PhD, University of Texas, Galveston (7/08-present)

Peer-reviewed publications

1. Liao S, Bao X, Liu T., Garofalo RP and Casola A. "Role of RNA helicases in human metapneumovirus-induced cellular signaling". J Gen Virol. 89(Pt 8):1978-86.2008.
2. Bao X, Kolli, D, Liu T, Shan Y, Garofalo R.P and Casola A. "Human metapneumovirus small hydrophobic protein inhibits NF- κ B transcriptional activity". J Virol. 82(16):8224-9. 2008
3. Altenberg, G.A., Bao, X., Lee S.H and Reuss, L. " Regulation of Cx43 channels by PKC-mediated phosphorylation. Physiological Mini-Reviews. 3:35-40.2008.

Natalie N. Bauer, PhD, University of South Alabama (7/08-present)

Peer-reviewed publications

1. King, J., Syklawer,E., Chen, H., Resmondo, J., McDonald, F., Stevens, T., Shevde, L., Ofori-Acquah, S., Moore, T., and Bauer, N. Lung endothelial cells express ALCAM on released exosomes/microparticles. Microsc Microanal 14(Suppl 2), 2008.
2. King, J., Agarwal, S., Syklawer,E., Prasain, N., Chen, H., Resmondo, J., McDonald, F., Bauer, N., Alvarez, D., Wu, S., Stevens, T., Shevde, L., Moore, T., and Townsley, M. Quantum dots-Utilization in TEM. Microsc Microanal 14(Suppl 2), 2008.
3. Bauer, N., Rai, J., Chen, H., Harris, L., Shevde, L., Moore, T., and King, J. Microparticles/Exosomes: Isolation and TEM Analysis. Microscopy Today. In press, Jan 2009.

Charaf Benarafa, DVM, PhD, CBR Institute for Biomedical Research (7/06-present)

Peer-reviewed publications

1. Yasumatsu R, Altiok O, Benarafa C, Yasumatsu C, Bingol-Karakoc G, Remold-O'Donnell E, Cataltepe S. SERPINB1 upregulation is associated with *in vivo* complex formation with neutrophil elastase and cathepsin G in a baboon model of bronchopulmonary dysplasia. AmJPhysiol-LungCellMolPhysiol 2006;291:L619-L627.
2. Benarafa C, Priebe G, Remold-O'Donnell E. The neutrophil serine protease inhibitor serpinb1 preserves lung defense functions in *Pseudomonas aeruginosa* infection. JExpMed 2007;204:1901-9
3. Goerge T, Ho-Tin-Noe B, Carbo Cots C, Benarafa C, Remold-O'Donnell E, Zhao BQ, Cifuni SM, Wagner DD. Platelets preserve vascular integrity during inflammation. Blood 2008;111:4958-64.

James P. Bridges, PhD, Cincinnati Children's Hospital Medical Center (7/07-present)

Peer-reviewed publications

1. Dong M, Bridges JP, Apsley K, Xu Y, Weaver TE. ERdj4 and ERdj5 Are Required for Endoplasmic Reticulum-associated Protein Degradation of Misfolded Surfactant Protein C. Molecular Biology of the Cell. 2008. 19(6): 2620-2630
2. Bridges JP, Panos RJ. Surfactant Protein C related Interstitial Lung Disease. In: McCormack FX, Rounds S, eds. *Molecular Basis of Pulmonary Disease: Insights from Rare Lung Disorders*. Humana Press (in press)

Kecia Nicole Carroll, MD, Vanderbilt University (7/07-present)

Peer-reviewed publications

1. Enriquez R, Griffin MR, Carroll KN, Wu P, Cooper WO, Gebretsadik T, Dupont WD, Mitchel EF, Hartert TV. Effect of maternal asthma and asthma control on pregnancy and perinatal outcomes. *J Allergy Clin Immunol* 2007 Sep;120(3):625-30.
2. Carroll KN, Gebretsadik Tebeb, Griffin MR, Dupont WD, Mitchel EF, Wu P, Enriquez R, Hartert TV. The increasing burden and risk factors for bronchiolitis-related medical visits in infants enrolled in a state healthcare insurance plan. *Pediatrics* 2008 Jul;122(1):58-64.
3. Carroll KN, Arbogast PG, Dudley J, Cooper, WO. Increase in incidence of medically-treated thyroid disease in children with Down syndrome following re-release of American Academy of Pediatrics health supervision guidelines. *Pediatrics* 2008 Jul 7.
4. Wu P, Dupont WD, Griffin MR, Carroll KN, Mitchel EF, Gebretsadik T, Hartert TV. Evidence of a causal role of winter virus infection during infancy on early childhood asthma. *Am J Respir Crit Care Med*. 2008 Dec 1;178(11):1123-9.
5. Carroll KN, Wu P, Gebretsadik, T, Griffin, MR, Dupont, WD, Mitchel E, Hartert, TV. Season of infant bronchiolitis and estimates of subsequent risk and burden of early childhood asthma. *J Allergy Clin Immunol*. 2009 Apr;123(4):964-6. Epub 2009 Jan 31.
6. Carroll KN, Wu P, Gebretsadik, T, Griffin, MR, Dupont, WD, Mitchel E, Hartert, TV. The severity-dependent relationship of infant bronchiolitis on the risk and morbidity of early childhood asthma. *J Allergy Clin Immunol*. 2009 Apr 9. [Epub ahead of print]

Kevin J. Cummings, PhD, Dartmouth University (7/08-present)

Peer-reviewed publications

1. Wilson, R.J.A & Cummings, K.J. Pituitary adenylate cyclase-activating peptide: vital for neonatal survival and the neuronal control of breathing. *Resp Physiol Neurobiol* 2008;64(1-2):168-178.
2. Cummings, K.J., Commons, K., Fan, K., Li, A., Nattie, E.E. Severe spontaneous bradycardia associated with respiratory disruptions in rat pups with fewer brainstem 5-HT neurons. *Am J Physiol Reg Integr Comp Physiol* 2009 (in press).
3. Cummings, K.J. and Frappell, P. The breath-to-breath hypercapnic response in neonatal rats: temperature dependency of the chemoreflexes and potential implications for breathing stability. *Am J Physiol Reg Integr Comp Physiol* 2009 (in press).

Charles Dela Cruz, MD, PhD, Yale University (7/08-present)

Peer-reviewed publications

1. Kang MJ, Lee CG, Dela Cruz CS, Enelow R and Elias JA. Cigarette Smoke Selectively Enhances Viral PAMP and Virus-Induced Innate Immune Responses and Emphysematous Tissue Destruction in the Murine Lung. 2008. *J Clin Invest*, 118(8):2771-2784.

Tushar J. Desai, MD, Stanford University (7/06-present)

Peer-reviewed publications

1. Chen F, Desai TJ, Qian J, Niederreither K, Lu J, Cardoso WV. Inhibition of TGF-beta signaling by endogenous retinoic acid is essential for primary lung bud induction. *Development* 2007; 134(16):2969-79.
2. El-Bizri N, Wang L, Merklinger SL, Guignabert C, Desai T, Urashima T, Sheikh AY, Knutsen RH, Mecham RP, Mishina Y, Rabinovitch M. Smooth muscle protein 22-alpha mediated patchy deletion of Bmpr1a impairs cardiac contractility but protects against pulmonary vascular remodeling. *Circ Res.* 2008 Feb 15; 102(3):380-8. Epub 2007 Dec 13.
3. Grimm D, Lee JS, Wang L, Desai T, Akache B, Storm TA, Kay MA. In vitro and in vivo gene therapy vector evolution via multispecies interbreeding and retargeting of adeno-associated viruses. *J Virol.* 2008 Jun; 82(12):5887-911. Epub 2008 Apr 9.

Navneet Kaur Dhillon, PhD, University of Kansas (7/07-present)

Peer-reviewed publications

1. Dhillon NK, Peng F, Ransohoff RR, Buch S. PDGF Synergistically Enhances IFN- γ Induced Expression of CXCL10 in Blood-Derived Macrophages: Implications for HIV-Dementia. *J Immunol* 2007; 179(5):2722-2730.
2. Dhillon NK, Williams R, Peng F, Tsai Y, Dhillon S, Nicolay B, Gadgil M and Buch S. Cocaine-mediated Enhancement of Virus Replication in Macrophages: Implications for HIV-Dementia. *J Neurovirology* 2007; 13(6):483-495.
3. Singh A, Dhillon NK, Sharma S, Khuller G. Identification and purification of CREB like protein in *Candida albicans*. *Mol Cell Biochem.*2008; 308(1-2):237-245.
4. Dhillon NK, Williams R, Callen S, Zien C, Narayan O, Buch S. Roles of MCP-1 in Development of HIV-Dementia. *Frontiers in Biosciences.* 2008; 13:3913-3918.
5. Peng F, Dhillon NK, Callen S, Bokhari S, Zhu X, Baydoun HH, Buch S. Platelet-Derived Growth Factor Protects Neurons against Gp120-Mediated Toxicity. *J Neurovirology* 2008; 14(1):62-72.
6. Dhillon NK, Gadgil M, Rahardja A, Kenjale H, Sidelnik A, Renfrow D, Amanda, Dhillon S, Kumar A and Buch S. Cocaine: A Catalyst for Human Immunodeficiency Virus-Associated Dementia. *Am. J. Infectious Diseases.* 2008; 4(2):131-139.
7. Dhillon NK*, Zhu X*, Peng F, Yao H, Williams R, Callen S, O'Brien-Ladner A, and Buch S. (*co first authors). Molecular Mechanism(s) Involved in the Synergistic Induction of CXCL10 by HIV-1 Tat and Interferon- γ in Macrophages. *J Neurovirology.* 2008; 14(3):196-204.
8. Bartolome S, Dhillon NK, Buch S, Casillan AJ, Wood JG and O'Brien-Ladner A. Deferoxamine Mimics the Pattern of Hypoxia-related Injury at the Microvasculature. *Shock.* 2009; 31(5):481-485.
9. Williams R, Dhillon NK, Hegde ST, Yao H, Peng F, Callen S, Chebloune Y, Davis RL, Buch S. Pro-inflammatory cytokines and HIV-1 synergistically enhance CXCL10 expression in human astrocytes. *Glia.* 2009; 57(7):734-743.
10. Peng F, Dhillon NK, Yao H, Zhu X, Buch S. Mechanisms of platelet-derived growth factor-mediated neuroprotection--implications in HIV dementia. *European J Neuroscience* 2008; 28(7):1255-1264.
11. Yao H, Peng F, Dhillon NK, Callen S, Bokhari S, Stehno-Bittl S, Wang JQ and Buch S. Involvement of TRPC channels in CCL2-mediated neuroprotection against Tat toxicity. *J Neurosci.* 2009; 29(6):1657-1669.
12. Dhillon NK, Murphy W, Filla M, Crespo A, Latham H and O'Brien-Ladner A. Down-modulation of IFN- γ Signaling in Alveolar Macrophages Isolated from Smokers. *Toxicology & Applied Pharmacology.* 2009 Mar 5 [Epub ahead of print].

Claudia Chimisso dos Santos, MD, University of Toronto (7/06-present)

Peer-reviewed publications

1. dos Santos CC, Slutsky AS. The contribution of biophysical lung injury to the development of biotrauma. *Annu Rev Physiol.* 2006;68:585-618. Review.
2. Han B, Mura M, Andrade CF, Okutani D, Lodyga M, dos Santos CC, Keshavjee S, Matthay M, Liu M. TNFalpha-induced long pentraxin PTX3 expression in human lung epithelial cells via JNK. *J Immunol.* 2006 Dec 15;175(12):8303-11.
3. Dos Santos CC. Hyperoxic acute lung injury and ventilator-induced/associated lung injury: new insights into intracellular signaling pathways. *Crit Care.* 2007;11(2):126.
4. CC dos Santos and Liu, ML, Chapter 5: Gene Expression Profiling by In Bioinformatics: A Practical Approach Chapman & Hall/CRC, Taylor Francis Group, Mathematical and Computational Biology Series Ed: Shui Qing Ye Published Aug 9th 2007
5. C. C. dos Santos, O. Daisuke, P. Hu, B. Han, E. Crimi, X. He, S. Keshavjee, C. Greenwood, A. S. Slutsku, H. Zhang, and M. Liu. Differential gene profiling in acute lung injury identifies injury-specific gene expression. *Critical Care Medicine.* 2008. 36(3): 855-65.
6. Chant C, Dos Santos CC, Saccucci P, Smith OM, Marshall JC, Friedrich JO. Discordance between perception and treatment practices associated with intensive care unit-acquired bacteriuria and funguria: a Canadian physician survey. *Crit Care Med.* 2008 Apr;36(4):1158-67.
7. C. C. dos Santos, Mini-series: Advances in Mechanisms of Repair and Remodeling in Acute Lung Injury *Crit Care Med.* 2008 Mar;36(3):855-65.
8. Lam E, and CC dos Santos. Advances in molecular acute lung injury/acute respiratory distress syndrome and ventilator-induced lung injury: the role of genomics, proteomics, bioinformatics. *Curr Opin Crit Care.* 2008 Feb;14(1):3-10.

Laura E. Fredenburgh, MD, Harvard University (7/07-present)

Peer-reviewed publications

1. Fredenburgh LE, Perrella MA, Mitsialis SA. The Role of Heme Oxygenase-1 in Pulmonary Disease. *Am J Resp Cell Mol Biol.* 2007; 36(2): 158-165. doi: 10.1165/rcmb.2006-0331TR. PMID: PMC2176110.
2. Fredenburgh LE, Champion EW, Drazen JM. Clinical Decisions. Mild persistent asthma--polling results. *N Engl J Med.* 2007 Jul 12;357(2):179-80. Epub 2007 Jun 20. PMID: 17582063.
3. Fredenburgh LE, Liang OD, Macias AA, Polte TR, Liu X, Riascos DF, Chung SW, Schissel SL, Ingber DE, Mitsialis SA, Kourembanas S, Perrella MA. Absence of COX-2 exacerbates hypoxia-induced pulmonary hypertension and enhances contractility of vascular smooth muscle cells. *Circulation.* 2008;117(16):2114-2122. PMID: PMC2586933.
4. Takamiya R, Hung CC, Hall SR, Fukunaga K, Nagaishi T, Maeno T, Owen C, Macias AA, Fredenburgh LE, Ishizaka A, Blumberg RS, Baron RM, Perrella MA. High Mobility Group Box 1 Contributes to Lethality of Endotoxemia in Heme Oxygenase-1 Deficient Mice. *Am J Respir Cell Mol Biol.* 2009; in press. Epub ahead of print. doi:10.1165/rcmb.2008-0331OC. PMID 19097991.
5. Fredenburgh LE, Ma J, Perrella MA. COX-2 inhibition and hypoxia-induced pulmonary hypertension: effects on pulmonary vascular remodeling and contractility. *Trends Cardiovasc Med.* 2009; in press. PMID pending.

Eliot Friedman, MD, University of Pennsylvania (7/07-present)

Peer-reviewed publications

1. Kelz M, Friedman E. Anesthetic sensitivity: learning to fly. *Anesthesiology* 2009 (in press).

Elena Goncharova, PhD, University of Pennsylvania (7/08-present)

Peer-reviewed publications

1. Krymskaya VP, Goncharova EA. PI3K/mTORC1 activation in hamartoma syndromes: therapeutic prospects. *Cell Cycle* 2009;8(3):403-413.

Stefano Guerra, MD, PhD, University of Arizona (7/06-present)

Peer-reviewed publications

1. LeVan TD, Guerra S, Klimnecki W, Vasquez M, Lohman IC, Martinez FD, Halonen M, Wright AL: "The impact of CD14 polymorphisms on the development of soluble CD14 levels during infancy". *Genes and Immunity* 2006, 7: 77-80.
2. Crestani E, Lohman IC, Guerra S, Wright AL, Halonen M: "In vitro association of cytokine production and IgE levels in infants and parents". *Journal of Allergy and Clinical Immunology*, 2007, 120: 820-6.
3. Stern DA, Guerra S, Halonen M, Wright AL, Martinez FD: "Low IFN- γ production in the first year of life as a predictor of wheeze during childhood and adolescence". *Journal of Allergy and Clinical Immunology* 2007, 120: 835-41.
4. Stern DA, Morgan WJ, Wright AL, Guerra S, Martinez FD: "Poor airway function in early infancy and lung function by age 22 years: a non-selective longitudinal cohort study". *Lancet* 2007, 370: 758-64.
5. Guerra S & Martinez FD: "Asthma genetics: from linear to multifactorial approaches". [review] *Annual Review of Medicine* 2008, 59: 199-213.
6. Silva GE, Guerra S, Keim S, Barbee RA, Sherrill DL: "Relation of α_1 -Antitrypsin Phenotype PiMZ and Diffusing Capacity of the Lung for Carbon Monoxide (DL_{CO})". *Chest* 2008, 133: 1095-1100.
7. Yucesoy B, Kurzius-Spencer M, Johnson VJ, Fluharty K, Kashon ML, Guerra S, Luster MI, Burgess JL: "Association of cytokine gene polymorphisms with rate of decline in lung function". *Journal of Occupational and Environmental Medicine*, 2008, 50: 642-648.
8. Tebow G, Sherrill DL, Lohman IC, Stern DA, Wright AL, Martinez FD, Halonen M, Guerra S: "Effects of Environmental Tobacco Smoke on Interferon- γ Production in Children". *Pediatrics*, 2008, 121: e1563-1569.
9. Guerra S, Sherrill, DL, Kurzius-Spencer M, Venker C, Halonen M, Quan SF, Martinez FD: "The Course of Persistent Airflow Limitation in Subjects with and without Asthma". *Respiratory Medicine*, 2008, 102: 1473-1482.
10. Guerra S, Sherrill DL, Venker C, Ceccato CM, Halonen M, Martinez FD: "Chronic bronchitis before age 50 years predicts incident airflow limitation and all-cause mortality". *Thorax* 2009 (in press).

My Nga Helms, PhD, Emory University (7/06-present)

Peer-reviewed publications

1. Helms MN, Self J.L., Bao H.F., Job L., Jain L., and Eaton D.C. Dopamine Activates Amiloride-Sensitive Sodium Channel (ENaC) in Alveolar Type 1 Cells Examined in situ. *Am J Physiol Lung Cell Mol Physiol.* 2006 Oct 291(4) L610-8.
2. Yu L., Eaton D.C., Self J.L., Helms MN. Aldosterone-induced increases in superoxide (O₂⁻) production counters nitric oxide inhibition of epithelial Na channel (ENaC) activity in A6 distal nephron cells. *Am J Physiol Renal* 2007 Nov; 293 (5):F1666-77.
3. Yu L., Eaton D.C., Helms MN. The Effect of Divalent Heavy Metals of Epithelial Na Channels in A6 cells. *Am J Physiol Renal* 2007 Jul 293(1) F236-44.
4. Helms MN, Self, J.L., Jain L., Eaton, D.C. Redox regulation of sodium channel activity in alveolar type 1 and 2 cells in lung slice preparations. *J Biol Chem* 2008 Aug15 283 (33) 22875-83.
5. Yu L., Helms M.N., Yue Q., Eaton, D.C. Single Channel Analysis of Functional Epithelial Sodium Channel (ENaC) Stability at the Apical Membrane of A6 Distal Kidney Cells. *Am J Physiol Renal Physiol.* 2008 Nov; 295 (5): F1519-27.
6. Eaton D.C., Helms M.N., Koval M., Bao H.F., Jain, L. The Contribution of Epithelial Sodium Channels to Alveolar Function in Health and Disease. *Ann Rev Physiol.* 2009 Mar (71) 403-423.
7. Koval M., Findley, M.K., Ward C., Roser-Page S., Helms M.N., Roman J. Extracellular matrix influences alveolar epithelial claudin expression and barrier function. *Am J of Resp Cell and Mol Bio* 2009 (in press).

Matthew R. Hodges, PhD, Yale University (7/06-present)

Peer-reviewed publications

1. M.R. Hodges, G.J. Tattersall, M.B. Harris, S.D. McEvoy, D.N. Richerson, E.S. Deneris, R.L. Johnson, Z.F. Chen, G.B. Richerson. Defects in breathing and thermoregulation in mice with near-complete absence of serotonin neurons. *J. Neurosci.*, 28(10): 2495-505, 2008.
2. H.V. Forster, P. Martino, M. Hodges, K. Krause, J. Bonis, S. Davis, L. Pan. The carotid chemoreceptors are a major determinant of ventilatory CO₂ sensitivity and of PaCO₂ during eupneic breathing. *Adv. Exp. Med. Biol.* 605: 322-6, 2008.
3. M.R. Hodges, G.B. Richerson. Contributions of 5-HT neurons to respiratory control: neuromodulatory and trophic effects. *Respir. Physiol. Neurobiol.*, 2008.
4. M.R. Hodges, G.B. Richerson. Interaction between defects in ventilatory and thermoregulatory control in mice lacking 5-HT neurons. *Respir. Physiol. Neurobiol.*, 2008.
5. A.E. Corcoran, M.R. Hodges, Y. Wu, W. Wang, C.J. Wylie, E.S. Deneris, G.B. Richerson. Medullary serotonin neurons and central CO₂ chemoreception. *Respir. Physiol. Neurobiol.* (In Press).

Steven K. Huang, MD, University of Michigan (7/08-present)

Peer-reviewed publications

1. Chung J, Serezani CH, Huang SK, Stern JN, Keskin DB, Jagirdar R, Brock TG, Aronoff DM, Peters-Golden M. Rap1 activation is required for Fc gamma receptor-dependent phagocytosis. *J Immunol.* 2008 Oct 15;181(8):5501-9.
2. Huang SK, Wettlaufer SH, Chung J, Peters-Golden M. Prostaglandin E₂ Inhibits Specific Lung Fibroblast Functions Via Selective Actions of PKA and Epac-1. *Am J Respir Cell Mol Biol.* 2008 Oct;39(4):482-9.

Melissa G. Hunter, PhD, Ohio State University (7/06-present)

Peer-reviewed publications

1. Varadharaj, S., Steinhour, E., Hunter, MG, Watkins, T., Welsh, T., Baran, C., Kuppusamy, P., Marsh, C., Zweier, J., Natarajan, V., Parinandi, N. Vitamin C-induced activation of phospholipase D in lung microvascular endothelial cells: Regulation by MAP Kinases. *Cell Signal*. 2006 Sep;18(9):1396-407.
2. Magalang UJ, Rajappan R, Hunter MG, Kutala VK, Kuppusamy P, Wewers MD, Marsh CB, Parinandi NL. Adiponectin inhibits superoxide generation by neutrophils. *Antioxid Redox Signal*. 2006 Nov-Dec;8(11-12):2179-86.
3. Lichtenberger FJ, Montague C, Hunter MG, Frambach G, Marsh CB. NAC and DTT Promote TGF- β 1 Monomer Formation: Demonstration of Competitive Binding, *Journal of Inflammation* 2006, 3:7.
4. Montague CR, Hunter MG, Gavrilin, MA, Phillips GS, Goldschmidt-Clermont PJ, Marsh CB. Activation of estrogen receptor alpha reduces aortic smooth muscle differentiation. *Circ Res*. 2006 Sep 1;99(5):477-84.
5. Wang Y, Zeigler MM, Lam GK, Hunter MG, Eubank TD, Khramtsov VV, Tridandapani S, Sen CK, Marsh CB. The role of the NADPH oxidase complex, p38 MAPK, and Akt in regulating human monocyte/macrophage survival *Am J Respir Cell Mol Biol*. 2007 Jan;36(1):68-77.
6. Baran CP, Opalek JM, McMaken S, Newland CA, O'Brien Jr JM, Hunter MG, Bringardner BD, Monick MM, Brigstock DR, Stromberg PC, Hunninghake GW, Marsh CB. Important Roles for M-CSF, CCL2 and Mononuclear Phagocytes in the Pathogenesis of Pulmonary Fibrosis. *Am J Respir Crit Care Med*. 2007 176:78-89.
7. Mazerik J, Hagele T, Ciapala V, Butler S, Kuppusamy ML, Hunter MG, Marsh CB, and Parinandi NL. Phospholipase A2 activation regulates cytotoxicity of methylmercury in vascular endothelial cells. *International Journal of Toxicology* 2007 Nov-Dec;26(6):553-69.
8. Opalek JM, Ali NA, Lobb JM, Hunter MG, Marsh CB. Alveolar macrophages lack CCR2 expression and do not Migrate to CCL2. *Journal of Inflammation* 2007 4(1):19.
9. Ai J, Druhan L, Hunter M, Loveland M, Avalos B. LRG-Accelerated differentiation defines unique G-CSFR signaling pathways downstream of PU.1 and C/EBP ϵ that modulate neutrophil activation. *Journal of Leukocyte Biology*, 2008 May;83(5):1277-85.
10. Ali NA, Gaughan AA, Orosz CG, Baran CP, McMaken S, Wang Y, Eubank T, Hunter M, Lichtenberger FJ, Flavahan NA, Lawler J, Marsh CB. Latency Associated Peptide Has In Vitro and In Vivo Immune Effects Independent of TGF- β 1. *PLoS ONE* 2008 3(4): e1914 doi:10.1371/journal.pone.0001914.
11. Hunter MG, McLemore M, Link DC, Loveland M, Copelan A, Avalos BR. Divergent pathways in COS-7 cells mediate defective internalization and intracellular routing of truncated G-CSFR forms in SCN/AML. *PLoS ONE*. 2008 Jun 18;3(6):e2452.
12. Magalang UJ, Cruff JP, Rajappan R, Hunter MG, Patel T, Marsh CB, Raman SV, Parinandi NL. Intermittent Hypoxia Suppresses Adiponectin Secretion by Adipocytes. *Exp Clin Endocrinol Diabetes*. 2009 Mar;117(3):129-34.
13. Kindwall-Keller TL, Druhan LJ, Ai J, Hunter MG, Massullo P, Loveland M, Avalos BR. Role of the proteasome in modulating native G-CSFR expression. *Cytokine*. 2008 Aug;43(2):114-23.
14. Hunter M, Wang Y, Eubank T, Baran C, Nana-Sinkam P, Marsh C. Survival of monocytes and macrophages and their role in health and disease. Invited review; *Frontiers in Bioscience* 2009 Jan 1;14:4079-102
15. Crawford, M., Brawner, E., Batte, K., Yu, L., Hunter, MG, Otterson, GA, Nuovo, G., Marsh, CB, Nana-Sinkam, SP. MicroRNA-126 inhibits invasion in non-small cell lung carcinoma cell lines. *Biochem Biophys Res Commun*. 2008 Sep 5;373(4):607-12.
16. Piper-Hunter M, Ismail N, Zhang X, Aguda BD, Lee EJ, Yu L, Xiao T, Schafer J, Lee M-L T, Schmittgen TD, Nana-Sinkam SP, Jarjoura D, Marsh CB. "Detection of microRNA Expression in Human Peripheral Blood Microvesicles." *PLoS One* 2008;3(11):e3694.

Melissa G. Hunter, PhD, Ohio State University (7/06-present)

Peer-reviewed publications (Continued)

17. Aguda B, Kim Y, Piper-Hunter M, Friedman A, Marsh CB. MicroRNA Regulation of a Cancer Network: Consequences of the Feedback Loops Involving miR-17-92, E2F, and Myc, PNAS 2008 Dec 16;105(50):19678-83.
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Jennifer L. Ingram, PhD, Duke University (7/07-present)

Peer-reviewed publications

1. Kraft, M., Adler, K.B., Ingram, J.L., Crews, A.L., Atkinson, T.P., Cairns, C.B., Krause, D.C., Chu, H.W. *Mycoplasma pneumoniae* Induces Airway Epithelial Cell Expression of MUC5AC in Asthma. European Respiratory Journal 31: 43-46, 2008.

Matthew R. Jones, PhD, Harvard and Boston University (7/07-present)

Peer-reviewed publications

1. Quinton LJ, Jones MR, Robson BE, Simms BT, Uematsu S, Akira S, Whitsett JA, Mizgerd JP. Alveolar epithelial STAT3 activation depends on IL-6 family cytokines, mediates host defense, and prevents lung injury during Escherichia coli pneumonia. Amer. J. Resp. Cell Mol. Bio. 2008; Jun;38(6):699-706.
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3. Quinton LJ, Jones MR, Robson BE, Mizgerd JP. Mechanisms of the hepatic acute phase response during bacterial pneumonia. Infect. Immun. 2009 (in press).

Kevin K. Kim, MD, University of California, San Francisco (7/07-present)

Peer-reviewed publications

1. Kim KK, Wei Y, Szekeres C, Kugler MC, Wolters PJ, Hill ML, Frank JA, Brumwell AN, Wheeler SE, Kreidberg JA, Chapman HA. 2009. Epithelial integrin $\alpha3\beta1$ links β -catenin and smad signaling to promote myofibroblasts formation and pulmonary fibrosis. Journal of Clinical Investigation. 119:213-224.
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Guillaume Lenormand, PhD, Harvard School of Public Health (7/08-present)

Peer-reviewed publications

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Anice Carmen Lowen, PhD, Mt. Sinai School of Medicine (7/07-present)

Peer-reviewed publications

1. Lowen, A.C., Mubareka, S., Steel, J., and Palese, P. Influenza virus transmission is dependent on relative humidity and temperature. *PLoS Pathogens* 2007;Oct 19;3(10): 1470-6.
2. Lowen, A.C. and Palese, P. Influenza virus transmission: basic science and implications for the use of antiviral drugs during a pandemic. (review article) *Infectious Disorders – Drug Targets* 2007; Dec;7(4): 318-328.
3. Lowen, A.C., Steel, J., Mubareka, S. and Palese, P. High temperature (30°C) blocks aerosol but not contact transmission of influenza virus. *Journal of Virology* 2008; Jun 1;82(11): 5650-52.
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5. Steel, J., Lowen, A.C., Mubareka, S. and Palese, P. Transmission of influenza virus in a mammalian host is increased by PB2 amino acids 627K or 627E/701N. *PLoS Pathogens* 2009; Jan. 5(1):e1000252.
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Peter M. MacFarlane, PhD, University of Wisconsin-Madison (7/08-present)

Peer-reviewed publications

1. MacFarlane P.M, Wilkerson J.E, Lovett-Barr M.R, Mitchell G.S. Reactive oxygen species and respiratory plasticity following intermittent hypoxia. *Respir. Physiol. Neurobiol.* 2008;**164**(1-2): 263-71.
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Brian Mitchell, PhD, Northwestern University (7/08-present)

Peer-reviewed publications

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Timothy M. Moore, MD, PhD, University of South Alabama (7/07-present)

Peer-reviewed publications

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5. Fouty, B., Ware, L., J.R. Jacobsen, J.P. Maloney, D.F. Alvarez, and T.M. Moore. Acute lung injury and the acute respiratory distress syndrome (ALI/ARDS): therapeutics on the horizon. *J. Invest. Med.* 2009, in press.
6. Ware, L. and T.M. Moore. Evidence based management of ALI/ARDS: translational approach to therapeutics. *J. Invest. Med.*2009, in press.

Kari C. Nadeau, MD, PhD, Stanford University (7/06-present)

Peer-reviewed publications

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Laura M. Palermo, PhD, Cornell University (7/08-present)

Scientific presentation

1. Palermo, L.M., Porotto, M., Yokoyama, C., Palmer, S.G., Greengard, O. Mungall, B.A., Niewiesk, S., Moscona, A. Human parainfluenza virus infection of the airway epithelium: the viral hemagglutinin-neuraminidase regulates F-triggering and modulates infectivity. *Journal of Virology* 2009 Apr 22. [Epub ahead of print].

Christoph O. Randak, MD, University of Iowa (7/07-present)

Peer-reviewed publications

1. Ostedgaard LS, Rogers CS, Dong Q, Randak CO, Vermeer DW, Rokhlina T, Karp PH, Welsh MJ. Processing and function of CFTR-ΔF508 are species-dependent. *Proc Natl Acad Sci USA* 2007; 104: 15370-15375
2. Randak CO, Welsh MJ. Role of CFTR's intrinsic adenylate kinase activity in gating of the Cl⁻ channel. *J Bioenerg Biomembr* 2007; 39: 473-479.
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Emma Louise Rawlins, PhD, Duke University (7/07-present)

Peer-reviewed publications

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2. Rawlins E. L. Lung epithelial progenitor cells: lessons from development. *Proceedings of the American Thoracic Society* 2008;5:675-681. (Invited review)
3. Rawlins E. L., Okubo T., Que J., Xue Y., Clark C., Luo X. and Hogan B. L. M. Epithelial stem/progenitor cells in lung postnatal growth maintenance and repair. *Cold Spring Harbor Symposia in Quantitative Biology*. 2008;Nov 26 [Epub ahead of print].
4. Rawlins E. L., Okubo T., Xue Y., Brass D. M., Auten R. L., Hasegawa H., Wang F., and Hogan B. L. M. The role of Scgb1a1⁺ Clara cells in the long-term maintenance and repair of lung airway, but not alveolar, epithelium. *Cell Stem Cell* 2009 (in press).

Paul R. Reynolds, PhD, University of Utah (7/06-present)

Peer-reviewed publications

1. Reynolds P.R. and J.R. Hoidal. Cigarette Smoke-Induced Egr-1 Upregulates Pro-Inflammatory Cytokines in Pulmonary Epithelial Cells. *Am J Resp Cell Mol Biol* 2006;35(3):314-319.
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Isabel Sada-Ovalle, MD, PhD, Harvard – Brigham & Women's Hospital (7/06-present)

Peer-reviewed publications

1. Sada-Ovalle I, Chiba A, Gonzales A, Brenner MB, Behar SM. Innate invariant NKT cells recognize Mycobacterium tuberculosis infected macrophages, produce interferon- γ and kill intracellular bacteria. *PLoS Pathog*. 2008 Dec;4(12):e1000239.
2. Torre-Bouscoulet L, Castorena-Maldonado A, Sada-Ovalle I, Meza-Vargas MS. Mechanisms of cardiovascular damage in obstructive sleep apnea. *Rev Invest Clin* 2008; Nov-Dec;60(6):502-516. (Spanish)
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Albert Senft, PhD, Lovelace Respiratory Research Institute (7/06-present)

Peer-reviewed publications

1. Sampath, V., K. Davis, A. P. Senft, T. R. Richardson, J. A. Kitzmiller, P. Y. Berclaz and T. R. Korfhagen. Altered Postnatal Lung Development in C3H/HeJ Mice. *Pediatr. Res* 2006;60(6):663-668.
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David Stoltz, PhD, University of Iowa (7/07-present)

Peer-reviewed publications

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2. Rogers CS, Hao Y, Rokhlina T, Samuel M, Stoltz DA, Li Y, Petroff E, Vermeer DW, Kabel AC, Yan Z, Spate L, Wax D, Murphy CN, Rieke A, Whitworth K, Linville ML, Korte SW, Engelhardt JF, Welsh MJ, Prather RS. Production of CFTR-null and CFTR-DeltaF508 heterozygous pigs by adeno-associated virus-mediated gene targeting and somatic cell nuclear transfer. *J Clin Invest* 118:1571-77, 2008.
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Omar Tliba, PhD, University of Pennsylvania & Jefferson University (7/07-present)

Peer-reviewed publications

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9. Damera G, Tliba O, Panettieri RA Jr. Airway smooth muscle as an immunomodulatory cell. *Pulm Pharmacol Ther.* 2008 Dec 24.
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11. Sukkar MB, Clarke D, Damera G, Tliba O. Transcriptional regulation of cytokine functions in airway smooth muscle cells. *Pulmonary Pharmacology and Therapeutics* 2009 (In press).

Jordi Torrelles, PhD, Ohio State University (7/08-present)

Peer-reviewed publications

1. Torrelles JB, Knaup R, Kolareth A, Slepushkina T, Kaufman TM, Kang P, Hill PJ, Brennan PJ, Chatterjee D, Belisle JT, Musser JM, and Schlesinger LS. Identification of Mycobacterium tuberculosis clinical isolates with altered phagocytosis by human macrophages due to a truncated lipoarabinomannan. *Journal of Biological Chemistry* 2008;283:31417 - 31428.
2. Azad AK, Torrelles JB, and Schlesinger LS. Mutation in DC-SIGN cytoplasmic triacidic cluster motif attenuates the receptor in both phagocytosis and endocytosis of mannose-containing ligands by human myeloid cells. *Journal of Leukocyte Biology* 2008;84:1594-1603.
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Phuoc T. Tran, MD, PhD, Stanford University (7/08-present)

Peer-reviewed publications

1. Phuoc T. Tran*, Wendy Hara*, Zheng Su, H. Jill Lin, Pavan K. Bendapudi, Jeffrey Norton, Nelson Teng, Christopher R. King & Daniel S. Kapp. Intraoperative Radiation Therapy for Locally Advanced and Recurrent Soft Tissue Sarcomas in Adults. *Int J Radiat Oncol Biol Phys.* 72 (2008) 1146-1153. * - these authors contributed equally.
2. Phuoc T. Tran*, Alice C. Fan*, Pavan K. Bendapudi*, Shan Koh, Kim Komatsubara, Joy Chen, George Horng, David I. Bellovin, Sylvie Giuriato, Craig S. Wang, Jeffrey A. Whitsett and Dean W. Felsher. Combined Inactivation of MYC and K-Ras Oncogenes Reverses Tumorigenesis in Lung Adenocarcinomas and Lymphomas. *PLoS ONE* 3 (2008) e2125.* - these authors contributed equally.
3. Phuoc T. Tran and Dean W. Felsher. The current STATE of Biomarkers for Response to Anti-Angiogenic Therapies. *Cancer Biol Ther* 7 (2008) 2004-2006.
4. Wendy Hara, Phuoc Tran, Gordon Li, Zheng Su, Putipun Puataweepong, John Adler, Steven Chang, Scott Soltys and Iris C. Gibbs. Cyberknife for brain metastases of malignant melanoma and renal cell carcinoma. *Neurosurgery* 64 (2009) A26-32.
5. Melissa Horoschak, Phuoc T. Tran*, Pavan Bachireddy, Robert B. West, David Mohler, Christopher Beaulieu, Daniel S. Kapp, and Sarah S. Donaldson. External beam radiation therapy enhances local control in pigmented villonodular synovitis. *Int J Radiat Oncol Biol Phys.* (2009) Feb 9 [Epub ahead of print]. * - corresponding author.

Jieru Wang, MD, PhD, National Jewish (7/08-present)

Peer-reviewed publications

1. Wang J, Oberley-Deegan R, Wang S, Nikrad M, Funk CJ, Hartshorn KL, Mason RJ. Differentiated human alveolar type II cells secrete anti-viral IL-29 (IFN-lambda 1) in response to influenza A infection. *J Immunol.* 2009 Feb 1;182(3):1296-304.

George R. Washko, Jr., MD, Harvard – Brigham & Women’s Hospital (7/08-present)

Peer-reviewed publications

1. Kim WJ, Silverman EK, Hoffman EA, Criner GJ, Mosenifar Z, Scirba FC, Make BJ, Carey V, Diaz A, Reilly JJ, Martinez FJ, and Washko GR. Computed Tomographic Metrics of Airway Disease and Emphysema in Severe COPD. *Chest* 2009 (in press).

Julie M. Wenninger, PhD, University of Wisconsin (7/06-present)

Peer-reviewed publications

1. Bavis RW, Wenninger JM, Miller BM, Dmitrieff EF, Olson EB Jr, Mitchell GS, Bisgard GE. Respiratory plasticity after perinatal hyperoxia is not prevented by antioxidant supplementation. *Respir Physiol Neurobiol.* 2008 Feb 29;160(3):301-12.
2. Behan M, Wenninger JM. Sex steroidal hormones and respiratory control. *Respir Physiol Neurobiol.* 2008 Dec 10;164(1-2):213-21. Review.
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Timothy Eoin West, MD, University of Washington (7/08-present)

Peer-reviewed publications

1. West TE, Ernst RK, Jansson-Hutson MJ, Skerrett SJ. Activation of Toll-like Receptors by *Burkholderia pseudomallei*. *BMC Immunol*. 2008 Aug 8;9:46.
2. Cheng AC, West TE, Limmathurotsakul D, Peacock SJ. Strategies to reduce mortality from bacterial sepsis in adults in developing countries. *PLoS Med*. 2008 Aug 19;5(8):e175.
3. Haraga A, West TE, Brittnacher MJ, Skerrett SJ, Miller SI. *Burkholderia thailandensis* as a model system for the study of the virulence-associated type III secretion system of *Burkholderia pseudomallei*. *Infect Immun*. 2008 Nov;76(11):5402-11.
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D. Walter Wray, PhD, University of Utah (7/07-present)

Peer-reviewed publications

1. Nishiyama, S.K., D.W. Wray, K. Berkstresser, K. Ramaswamy, and R.S. Richardson. Limb-specific differences in flow-mediated dilation: The role of shear rate. *J Appl Physiol*, 2007 Sep;103(3):843-51.
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4. Wray, D.W., S.K. Nishiyama, R.A. Harris, and R.S. Richardson. Angiotensin-II in the elderly: impact of AT1 receptor sensitivity on peripheral hemodynamics. *Hyper* 2008 Jun;51(6):1611-6.
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