CURRICULUM VITAE

NAME Michael R. Blackburn, Ph.D.

DATE OF BIRTH December 10, 1965

CITIZENSHIP U.S.A.

CURRENT STATUS

Executive Vice President and Chief Academic Officer
UTHealth
7000 Fannin Street
Suite 1700
Houston, TX 77030
(713) 500-3002

Dean
John P. McGovern Distinguished Professor of Biomedical Sciences
The University of Texas Graduate School of
Biomedical Sciences at Houston
6767 Bertner, 3rd Floor
Houston, TX 77030
Phone (713) 500-9880

Professor
William S. Kilroy Sr., Distinguished University Chair in Pulmonary Disease
Department of Biochemistry and Molecular Biology
McGovern Medical School at UTHealth
6431 Fannin Street
Houston, TX 77030
Phone: (713) 500-6087
FAX: (713) 500-0652
Email: michael.r.blackburn@uth.tmc.edu

ACADEMIC APPOINTMENTS

01/01/2016	Executive Vice President and Chief Academic Officer UTHealth
07/01/2015	Director UTHealth Pulmonary Center of Excellence
07/01/2012	Dean MD Anderson Cancer Center UTHealth Graduate School of Biomedical Sciences
12/18/2012	Distinguished Teaching Professor The University of Texas System
09/01/2011 to 01/01/2016	Vice Chairman Department of Biochemistry and Molecular Biology University of Texas-Houston Medical School, now McGovern Medical School
09/01/2006	Professor of Biochemistry University of Texas-Houston Medical School, now McGovern Medical School

09/01/2005 to 08/31/2010	Director, Graduate Program in Biochemistry and Molecular Biology Graduate School of Biomedical Sciences, now MD Anderson Cancer Center UTHealth Graduate School of Biomedical Sciences
09/01/2003	Associate Professor of Biochemistry with Tenure University of Texas-Houston Medical School, now McGovern Medical School
02/19/1998	Member of Graduate School Faculty MD Anderson Cancer Center UTHealth Graduate School of Biomedical Sciences
09/01/1997	Assistant Professor of Biochemistry University of Texas-Houston Medical School, now McGovern Medical School

EDUCATION

1984 - 1988	King College, Bristol, TN B.S., Biology
1988 - 1993	Thomas Jefferson University, Philadelphia, PA Graduate Research Assistant, Anatomy and Develop Biology Mentor, Thomas B. Knudsen, Ph.D.
1993 - 1997	Baylor College of Medicine, Houston, TX Postdoctoral Fellow, Biochemistry and Molecular Genetics Advisor, Rodney E. Kellems, Ph.D

HONORS AND AWARDS

1988	Graduate *Cum laude*, King College
1989 - 1993	Thomas Jefferson predoctoral fellowship recipient
1990 - 1994	Teratology Society Young Investigator Travel Award
1991	Gordon Research Conference Travel Award
1995 & 1997	V. C. Joshi Memorial Award, Baylor College of Medicine
1996	Trophoblast Research Young Investigator Travel Award
1994 - 1997	NIH, National Research Service Award
2000	Sandler Foundation Young Investigator Award
2003	American Lung Association Career Development Award
2005-10, 12	UT Medical School, Dean's Teaching Excellence Award
2010	Paul Darlington Mentor Award, Graduate School of Biomedical Sciences
2012	Finalist, Texas Regents Outstanding Teaching Award
2012	Appointment as Distinguished Teaching Professor, The University of Texas System
2012	Member, The University of Texas Academy of Health Science Education
2012	John P. McGovern Distinguished Professor of Biomedical Sciences, The University of Texas Graduate School of Biomedical Sciences at Houston
2013	UT Health Presidents Scholar Award for Research
2014	William S. Kilroy Sr., Distinguished University Chair in Pulmonary Disease, McGovern Medical School
2015	Distinguished Alumni Award, Thomas Jefferson University, Philadelphia, PA
2017	Fellow, American Association for the Advancement of Science

RESEARCH INTETESTS

My laboratory focuses on the role of the purine nucleoside adenosine and its role in regulating lung injury, repair and remodeling. Our major hypothesis is that activation of adenosine signaling through its receptors contributes to the progression of chronic lung diseases such as asthma, chronic obstructive pulmonary disease (COPD), pulmonary fibrosis and pulmonary hypertension by promoting excessive remodeling processes in the lung. Current emphasis is on understanding the role of adenosine signaling in the recruitment and activation of alternatively activated macrophages and how this process contributes to fibroproliferation and vascular remodeling in the lung. We are also interested on how adenosine signaling regulates destructive pathways in airway epithelial cells that lead to emphysema, a major feature of COPD. We use contemporary molecular and cellular approaches in mice and humans to promote the development of adenosine-based therapeutics for the treatment of chronic lung disease.

FUNDING

(M.R. Blackburn as Principle Investigator)

Active

R01 HL070952-13 (Blackburn) 07/01/11-06/30/18 3 calendar months
NIH/NHLBI $405,457 annual total cost
Adenosine Signaling and Lung Fibrosis
This project focuses on examining the contribution of CFLm25 in the progression of pulmonary fibrosis in mouse models and in samples isolated from patients with pulmonary fibrosis.

1 PO1 HL114457-04 (PD, Blackburn) *Hypoxic Adenosine Responses* 04/01/13-03/30/18
NIH/NHLBI $2,049,519 annual total cost
The goal of this program project is to define the pathways by which adenosine generation and signaling is beneficial in acute lung and kidney injury and detrimental during chronic lung disease and sickle cell disease.

Project 1. *Hypoxic Adenosine Responses in the Regulation of Lung Injury.* (PI, Blackburn)
NIH/NHLBI $ 542,243 annual total cost 2.4 calendar months
The goal of this project is to examine the mechanisms underlying the protective effects of adenosine during acute lung injury, the detrimental effects of adenosine in chronic lung disease and the continuum between the two. The focus will be on the promotion of barrier function by adenosine during acute lung injury and the role of adenosine-dependent alternatively activated macrophages during chronic disease stages.

Leader of Core A. *Administrative Core*. (PI, Blackburn) 04/01/13-03/30/18 0.6 calendar months
NIH/NHLBI $123, 348 annual total cost
The goal of this core will be to provide the administrative infrastructure needed to promote interactions between component project of this PPG.

Completed

PO 4500020593 (Blackburn) 02/20/04-12/31/15 1.2 calendar months
Gilead Sciences, Inc. $153,050 annual direct cost ($601,204 total cost)
Role of A2B Adenosine Receptor and its Antagonist (GS-6201) in Pulmonary Hypertension
The objective of this study is to treat both ADA-deficient and bleomycin exposed mice with various dosages of GS-6201 and thoroughly asses molecular, structural and physiological endpoints of PAH in these models.

UCB Celltech, Inc., "Assessment of the Efficacy of Anti-CSF-1R Ab535 in an Intra-tracheal Model of Bleomycin-induced Pulmonary Fibrosis and other assessments of pulmonary fibrosis."
(PO 0008209) 05/04/10-04/30/12 $155,000 total cost.

Institute of System Biology, "System Analysis of Lung Disease in ADA-deficient mice".
(PO 31486) 04/01/2010 – 12/31/2012. $70,200 total cost.

National Institutes of Health "Adenosine Metabolism and Signaling in Patients with COPD and Pulmonary Fibrosis"
(NIH, RO3-HL095403-02) 09/18/2008 - 07/31/11. $150,000 total cost.

UT MD Anderson Cancer Center Multidisciplinary Research Program Grant. "Inducible Innate Resistance of the Lung Epithelium to Infection" 04/01/10-03/31/11, $10,000 total cost.

National Institutes of Health "Molecular Models of Adenosine Signaling and Asthma"
(NIH, RO1-AI43572-10) 07/01/98 through 02/28/10, $ 2,227,201 total cost.

Battelle Memorial Institute and Institute for Systems Biology, "Systems analysis of adenosine-mediated lung disease in mice". 12/01/07 through 10/31/10, $336,413.59 total cost.

ENZON Pharmaceuticals Inc. "Efficacy of adenosine deaminase enzyme therapy in the treatment of bleomycin-induced pulmonary fibrosis". 07/01/06 through 12/31/07, $ 64,591.00 total cost.

ENZON Pharmaceuticals Inc. "Analysis of human PEG-ADA in adenosine deaminase deficient mice". 07/01/06 through 12/31/07, $54,718 total cost.

ENZON Pharmaceuticals Inc. "Pharmacodynamics of Adagen and recombinant PEG-ADA in Adenosine Deaminase-deficient mice". 09/01/09 through 10/31/10, $134,992.00 total cost.

American Lung Association Career Investigator Award "Role of Ecto-5'-Nucleotidase (CD73) in Chronic Lung Disease" (CI-1077-N-03) 07/01/04 through 06/30/07, $150,000 total cost.

Sandler Program for Asthma Research "Adenosine Deaminase Enzyme Therapy and Asthma Exacerbations" 07/01/04 through 06/30/05, $135,000 total cost.

National Institutes of Health "Adenosine Signaling and Lung Inflammation"
(NIH, HL61888-04) 09/01/98 through 08/30/03, $ 1,181,150.00 total cost.

Sandler Junior Investigator Award in Asthma Research "Role of the Adenosine A3 Receptor in Experimental Asthma" 07/01/00 through 06/30/03, $375,000 total cost.

Texas Higher Education Coordinating Board "The Role of Adenosine Signaling in Asthma" (011618-060) 01/01/98 through 12/31/99 $148,500 total cost.

(M.R. Blackburn as Co-Investigator)

Active

UL1TR000371 (McPherson) 06/27/12-12/31/17 (NCE) 1.2 calendar months
NIH/National Center for Advancing Translational Sciences $500,835
"Center for Clinical and Translational Sciences (CCTS)"
The goal of the CCTS is to move scientific and medical discoveries as fast as possible from the laboratory to the clinic and community, where they can improve the health of the American people. The

CCTS trains researchers, provides research services, and works with its communities to learn their health concerns and spread health care information.
Role: Co-Director of the TL1 component of the CTSA

Completed

1 R01 DK083559 (Xia) 4/1/2009-3/31/2015 0.6 calendar months
NIH/NIDDK $250,000 annual direct cost
Adenosine Signaling, Priapism and Sickle Cell Disease
The major goal of this study is to reveal an important role for adenosine signaling in several aspects of the penile erection process and highlight various therapeutic opportunities to treat priapism and other erectile disorders.
Role: Co-I

Investigator-Initiated Research Award (Agarwal) 09/30/12-09/29/15 0.6 calendar months
DOD $250,000
Cadherin-11 Regulation of Fibrosis through Modulation of Epithelial-to-mesenchymal Transition: Implications for pulmonary fibrosis in scleroderma
The aims of this proposal are to determine the contribution of cadherin-11 to process of epithelial-to-mesenchymal transition in airway epithelial cells, to investigate the expression of cadherin-11 on alveolar macrophages and the cadherin-11 dependent regulation of TGF-beta production by alveolar macrophages and to determine if cadherin-11 is a key mediator of fibrosis in the intraperitoneal bleomycin model of pulmonary fibrosis and if cadherin-11 modulates epithelial-to-mesenchymal transition in vivo during the development of pulmonary fibrosis.
Role: Co-I

R01 AI077679-01 (Shyu) 07/25/11-06/30/15 0.6 calendar months
NIH/NIAID $250,000 annual direct cost
Translational Regulation in Bronchial Epithelial Cells
The aims of this proposal are to determine whether a reduction in miR-26 and miR-16 abundance contributes to the persistent, elevated level of IL-6 observed in asthmatic primary HBE cells; to define the role of a group of miRNAs that are significantly down-regulated in asthmatic primary HBE cells in controlling the activity of translation machinery in bronchial epithelial cells; and to determine whether a reduction in P-bodies is a hallmark of activated bronchial epithelial cells, and how alteration of P-body assembly and disassembly influences the inflammatory response in bronchial epithelial cells.
Role: Co-PI

SCIENTIFIC/ACADEMIC SOCIETY MEMBERSHIPS

1989 - 1996	Teratology Society
1992 - present	American Association for the Advancement of Science
1996 - 2000	International Federation of Placental Associations
1998 – 2012	American Society for Biochemistry and Molecular Biology
2000 - present	American Thoracic Society
2000 – present	American Association of Immunologists
2012- present	The University of Texas Academy of Health Science Education

MANUSCRIPT REVIEWER FOR JOURNALS

Pharmacology and Therapeutics (Associate Editor)
Purinergic Signaling (Editorial Board Member)
Therapeutic Advances in Chronic Lung Disease (Editorial Board Member)

American Journal of Respiratory and Critical Care Medicine
American Journal of Respiratory Cell and Molecular Biology
American Journal of Respiratory Medicine
American Journal of Physiology Lung Cell and Molecular Physiology
American Journal of Physiology Cell Physiology
Analytical Biochemistry
Developmental Biology
Development
Gene
Immunology Today
FASEB Journal
Journal of Biological Chemistry
Journal of Clinical Investigation
Journal of Experimental Medicine
Journal of Immunology
Journal of Endocrinology
Journal of Pharmacology and Experimental Therapeutics
Leukocyte Biology
Nature Reviews
Nature Medicine
PlosOne
PNAS
Teratology
Trends in Pharmacological Sciences
Trends in Immunology

COMMITTEE ACTIVITIES

University of Texas Health Science Center and Medical School

1998 – 2006	UTHSC Radiation Safety Protocol Approval Committee
1998 – 2005	UT-Medical School Animal Welfare Committee
2000 - 2002	UT-Houston HSC Research Council
2002- 2004	UT Medical School Faculty Senate
2004	UT Medical School Dean Search Committee
2005 – present	UT-Medical School Graduate School Education Committee (Chair, 2010)
2006 – 2012	UTHSC Houston Faculty Promotion and Tenure Committee
2006- 2008	Pediatrics Research Faculty Search Committee
2006	Integrative Biology Department Chairman Search Committee
2006 – 2010	UTHSC Houston Clinical Research Center Advisory Board
2007	Biochemistry and Molecular Biology Faculty Search Committee
2007 - 2012	UT Medical School Research Committee
2007 – 2009	Advisory Committee on Resource Development and Utilization
2009, 2010	UT Health Science Center Executive Council Member
2010	Microbiology and Molecular Genetics Chairman Search Committee
2010	UT Medical School Committee on Committees
2011	Institute of Molecular Medicine Executive Director Search Committee
2011	UT Medical School Committee on Committees (Chair)
2012	Pediatrics Research Faculty Search Committee
2013	UT Medical School Deans Search Committee
2014	UT School of Public Health Deans Search Committee (Chair)

Graduate School of Biomedical Sciences

1998 – 2001	Biochemistry and Molecular Biology Graduate Program Admissions Reviewer
2000 - present	Biochemistry and Molecular Biology Program Steering Committee
2001 –2004	Graduate School of Biomedical Sciences Admissions Committee (Chair, 2004)
2004	Graduate School of Biomedical Sciences Executive Committee
2006 – 2011	Graduate School of Biomedical Sciences Executive Committee (Chair, 2008)
2008	Vice President, Graduate School of Biomedical Sciences Faculty
2009	President, Graduate School of Biomedical Sciences Faculty
2010	Molecular Pathology Graduate Program Review Committee (Chair)
2011	Graduate School Dean Search Committee

GRANT REVIEW SERVICE

1999	Grant Reviewer, NIH, PO1 “Asthma and Allergic Disease Research Centers”
2000	Grant Reviewer, NIH, Idea Grant Review Section
2001	Grant Reviewer, Bank of America Trust Fund
2002	Grant Reviewer, NIH, PO1, Mechanisms of Pulmonary Inflammation
2003	Grant Reviewer, The Welcome Trust, Pulmonary Fibrosis Grant Reviews
2004	Grant Reviewer, North Carolina Science and Technology Development Program
2004	Grant Reviewer, Czech Republic Scientific Board
2005	Grant Reviewer, NIH, PO1, Lung Injury and Repair
2006	Grant Reviewer, The Welcome Trust, Asthma
2006	Grant Reviewer, NIH, SCCOR, lung host diseases
2006	Grant Reviewer, NIH, Lung Cellular and Molecular Immunology Study Section, Ad Hoc
2007	Grant Reviewer, NIH, Lung Injury, Repair and Remodeling Study Section, Ad Hoc
2007-2012	Grant Reviewer, NIH, Lung Injury, Repair and Remodeling Study Section, Member
2009	Grant Reviewer, Rain Medical Research Foundation, Australia
2012	Workshop Leader, NHLBI, NIH workshop on Idiopathic Pulmonary Fibrosis
2014	Grant Reviewer, NIH, PPG reviewer, Ad Hoc
2015	Department of Defense Pulmonary Fibrosis Review Group (Committee Chair)

CONSULTING ACTIVITIES

2000, 2005	Novartis Pharmaceuticals Inc. (adenosine and lung disease)
2006, 2008	Enzon Pharmaceuticals Inc. (adenosine and lung disease)
2004-2008	CV Therapeutics Inc. (A2B adenosine receptors and lung disease)
2008	Roche Inc, (A2B adenosine receptors and lung disease)
2007-2010	Scientific Advisory Committee, Battelle Memorial Institute (Lung Health Initiative)
2008-2012	UCB Celltech Inc. (novel therapies for pulmonary fibrosis)
2008-2015	Gilead Sciences Inc. A2BR antagonist for the treatment of pulmonary hypertension.
2009-present	Scientific Advisory Committee, International Center for Biomedical Science, China
2009-2011	Sigma Tau Inc. (pegylated ADA development)
2010	Ambit Biosciences (novel adenosine receptor antagonists)
2011	Med Immune (novel targets for the treatment of chronic lung diseases)
2011	Lexicon Pharmaceuticals (small molecules for the treatment of lung disease)

TEACHING ACTIVITIES

Medical School:

2000-2016	Medical School Biochemistry Lecturer (4 lectures)
1998-2016	Medical School Biochemistry Conference Leader (4 lectures)
2007-2012	Postdoctoral Career Development (2 lectures)
2006-present	Grants 102 (1 lecture)

Graduate School of Biomedical Sciences:

2014	Emerging Trends in Biochemistry and Molecular Biology (2 lectures)
2013-2015	Current Methods in Molecular Research (1 lecture on in situ hybridization)
1998-2012	Current Methods in Molecular Research (Course Director, and 6 lectures)
2005-2012	Seminars in Biochemistry and Molecular Biology (Course Director)
1998	Advanced Reproductive Biology (2 lectures)
2000-2012	Metabolic Biochemistry (4 lectures)
2006, 2012	Topics in Molecular Medicine (2 lectures)
2004-2010	Stem Cells in Biomedical Science (2 lectures)
2001	Seminars in Regulatory Biology (3 lectures)
2017	Foundations in Biomedical Sciences (1 lecture)

SPONSORSHIP OF CANDIDATES FOR POSTGRADUATE DEGREE

1998-2002	Honyan Zhong, obtained Ph.D., currently a research scientist at Gilead Sci., Inc.
1999-2004	Hays Young, obtained Ph.D., currently research scientist with Arkansas Crime lab
2000-2006	Jonathon Volmer, obtained Ph.D., currently a Post Doc at UNC Chapel Hill
2001-2006	Janci Chunn, obtained Ph.D., currently scientists with at Exoponet in Houston
2003-2006	Amir Mohsenin, obtained Ph.D., currently an Assistant Professor at UTHealth
2004-2006	Rebecca Corrigan, obtained M.S., currently an intern at a law firm in Houston
2004-2006	Brandi Baird, obtained M.S., currently a graduate student at UT-Houston
2006-2010	Yang Zhou, obtained Ph.D. currently an Assistant Professor at Brown University
2007-2010	Daniel Schneider, obtained Ph.D., currently a Medicine Resident at the Univ. of Michigan
2008-2011	Mesias Pedroza, obtained Ph.D. currently a Postdoc at Baylor College of Medicine
2009-2014	Thuy Le, obtained M.D./Ph.D., currently in residency at UTHealth Medical School
2010-2012	Luis Acero (Ph.D. Student), left with terminal masters
2013-2017	Kemly Philips, obtained M.D./Ph.D., beginning residency at UTHealth
2015-present	Josh Ko, (Ph.D. student)

SPONSORSHIP OF POSTDOCTORAL FELLOWS

1999-2003	Suman Banerjee, M.D. Ph.D., currently a practicing pathologist in Florida
2001-2003	Christopher Evans, Ph.D., currently an Assistant Professor at M.D. Anderson
2002-2006	Chun-Xiao Sun, Ph.D., currently Assistant Professor at Lomalinda Univ. in CA
2006-2007	Amir Mohsenin, Ph.D., currently a 3rd year Med Student at UT Houston
2004-2008	Eva Morschl, Ph.D., currently a Research Associate at the IMM in Houston TX
2010-2011	Daniel Schneider, Ph.D., currently a Medicine Resident at the Univ. of Michigan
2010-2012	Harry Karmouty-Quintana, Ph.D., obtained an AHA Postdoctoral Fellowship, currently an Assistant Professor at UTHealth Medical School
2010-2015	Tingting Weng, Ph.D., obtained an AHA Postdoctoral Fellowship

2013-2017 Fayong Luo, Ph.D., obtained an AHA Postdoctoral Fellowship

CLINICIAN SCIENTIST, JUNIOR FACULTY MEMBERS AND CLINICAL FELLOW MENTORSHIPS

2007-2010	Jay Murthy, M.D., Pulmonary Proteomics (UT-Houston)
2007-2012	Sandeep Agarwal, M.D. Ph.D., Pulmonary Fibrosis (UT-Houston)
2009-2012	Dat Tran, M.D., T Regulatory Cells and Disease (UT-Houston)
2008-2012	Amber Loung, M.D., Allergic Rhinitis (UT-Houston)
2009-2012	Richard Johnston, Ph.D., Asthma (UT-Houston)
2010-2013	Ernestina Melencorft, M.D., Pediatric Fellow Research Project (BCM)
2011-2015	Jonathan Davies, M.D., Pediatric Fellow Research Project (BCM)
2012-2015	Harry Karmouty-Quintana, Ph.D., Assistant Professor (UTHealth)
2015-pressent	Tingting Mills, Ph.D., Assistant Professor (UTHealth)

PUBLICATIONS

Total Citations = 8,670
h-index = 58
i10-index = 136

Abstracts

Available upon request.

Journal Articles

1. Knudsen, T. B., Gray, M. K., Church, J. K., **Blackburn, M. R.**, Airhart, M. J., Kellems, R. E. and Skalko, R. G. (1989) Early postimplantation embryolethality in mice following in utero inhibition of adenosine deaminase with 2'-deoxycoformycin. *Teratology*, **40,** 615-626.

2. Chinsky, J. M., Ramamurthy, V., Fanslow, W. C., Ingolia, D. E., **Blackburn, M. R.**, Shaffer, K. T., Higley, H. R., Trentin, J. J., Rudolph, F. B., Knudsen, T. B. and Kellems, R. E. (1990) Developmental expression of adenosine deaminase in the upper alimentary tract of mice. *Differentiation*, **42,** 172-183.

3. Knudsen, T. B., **Blackburn, M. R.**, Chinskey, J. M., Airhart, M. J. and Kellems, R. E. (1991) Ontogeny of adenosine deaminase in the mouse decidua and placenta: Immunolocalization and embryo transfer studies. *Biol. Reprod.*, **44,** 171-184.

4. Knudsen, T. B., Winters, R. S., Otey, S. K., **Blackburn, M. R.**, Airhart, M. J., Church, J. K. and Skalko, R. G. (1992) Effects of (R)-deoxycoformycin (pentostatin) on intrauterine nucleoside catabolism and embryo viability in the pregnant mouse. *Teratology*, **45,** 91-103.

5. **Blackburn, M. R.**, Gao, X., Airhart, M. J., Skalko, R. G., Thompson, L. F. and Knudsen, T. B. (1992) Adenosine levels in the postimplantation mouse uterus: Quantitation by HPLC-fluorometric detection and spatiotemporal regulation by 5'nucleotidase and adenosine deaminase. *Dev. Dynam.*, **194,** 155-168.

6. Resta, R., Hooker, S. W., Hansen, K. R., Laurent, A. B., Park, J. L., **Blackburn, M. R.**, Knudsen, T. B. and Thompson, L. F. (1993) Murine ecto-5'-nucleotidase (CD73): cDNA cloning and tissue distribution. *Gene*, **133,** 171-177.

7. Gao, X., **Blackburn, M. R.** and Knudsen, T. B. (1993) Activation of apoptosis in early mouse embryos by 2'-deoxyadenosine. *Teratology*, **49,** 1-12.

8. Wakamiya, M., **Blackburn, M. R.**, Jurecic, J., McArthur, M. J., Geske, R. S., Cartwright, J. Jr., Mitane, K, Vaishnav, S., Belmont, J. W., Kellems, R. E., Finegold, M. J., Bradley, A. and Caskey, C. T. (1994) Disruption of the adenosine deaminase gene causes hepatocellular impairment and perinatal lethality in mice. *Proc, Ntl, Acad. Sci.,* **92,** 3673-3677.

9. **Blackburn, M. R.**, Wakamiya, M., Caskey, C. T. and Kellems, R. E. (1995) Tissue-specific rescue suggests that placental adenosine deaminase is important for fetal development in mice. *J. Biol. Chem*., **270,** 23891-23894.

10. **Blackburn, M. R.**, Datta, S. K., Wakamiya, M., Vartabedian, B. S. and Kellems, R. E. (1996) Metabolic and immunological consequences of partial adenosine deaminase deficiency in mice. *J. Biol. Chem.*, **271,** 15203-15210.

11. Shi, D., Winston, J. H., **Blackburn, M. R.**, Datta, S. K., Hanten, G. and Kellems, R. E. (1997) Diverse genetic regulatory motifs required for murine adenosine deaminase expression in the placenta. *J. Biol. Chem*., **272,** 2334-2331.

12. **Blackburn, M. R.**, Knudsen, T. B. and Kellems, R. E. (1997) Genetically engineered mice demonstrate that adenosine deaminase is essential for early postimplantation development. *Development,* **124**, 3089-3097.

13. **Blackburn, M. R.**, Datta, S. K. and Kellems, R. E. (1998) Adenosine deaminase deficient mice generated using a two stage genetic engineering strategy exhibit a combined immunodeficiency. *J. Biol. Chem.,* **273,** 5093-5100.

14. **Blackburn, M. R.**, Wakamiya, M. and Kellems, R. E. (1998) Purine metabolic disturbances in adenosine deaminase deficient fetuses and placentas suggest a protective role for this enzyme during murine development. *Trophoblasts Res*., **11,** 121-135.

15. **Blackburn, M. R.**, Wubah, J., Chunn, J. L., Thompson, L. T., and Knudsen, T. B. (1999) Transitory expression of the A2b adenosine receptor during implantation chamber development. *Developmental Dynamics,* **216**, 127-136.

16. **Blackburn, M. R.**, Volmer, J. B., Thrasher. J. C., Crosby, J. R., Lee, J. J. and Kellems, R. E. (2000) Metabolic consequences of adenosine deaminase deficiency in mice are associated with defects in alveogenesis, pulmonary inflammation and airway obstruction*. J. Exp. Med*., **192,** 159-170.

17. **Blackburn, M. R.**, Aldrich, M., Volmer, J. B., Chen, W., Kelly, S., Hershfield, M. S., Datta, S. K. and Kellems, R. E. (2000) The use of enzyme therapy to regulate the metabolic and phenotypic consequences of adenosine deaminase deficiency in mice: Differential impact on pulmonary and immunologic abnormalities. *J. Biol. Chem.,* **275,** 32114-32121.

18. Thompson, L. F., Van De Wiele, C. J., Laurent, A. B., Hooker, S. W., Vaughn, J. G., Jiang, H., Kellems, R. E., **Blackburn, M. R.**, Hershfield, M. S. and Resta, R. (2000) Metabolites from apoptotic thymocytes inhibit thymopoiesis in adenosine deaminase-deficient fetal thymic organ cultures. *J. Clin. Invest*., **106,** 1149-1157.

19. Van De Wiel, C. J., Hooker, S. W., Laurent, A. B., Vaughn, J. G., **Blackburn, M. R.**, Kellems, R. E., Hershfield, M. S., and Thompson, L. F. (2000) Inhibition of thymic caspases abrogates the consequences of adenosine deaminase deficiency. *Adv. Exp. Med. Biol.* **486,** 65-70.

20. Janahi, I. A., Elidemir, O., Shardonofsky, F. R., Abu-Hassan, M. N., Fan, L. L., Larsen, G. L., **Blackburn, M. R.** and Colasurdo, G. N. (2000) Recurrent milk aspiration produces changes in airway mechanics, lung eosinophilia, and goblet cell hyperplasia in a murine model. *Pediatric Res*., **48**, 776-781.

21. Khan, S., **Blackburn, M.** Mao, D. L., Huber, R., Schlessinger, D. and Fant, M. (2001) Glypican-3 (GPC3) expression in human placenta: localization to the differentiated syncytiotrophoblast. *Histol. Histopathol.,* **16,** 71-78.

22. Apasov, S., **Blackburn, M. R.**, Kellems, R. E., Smith, P. and Sitkovsky, M. V. (2001) Adenosine deaminase deficiency increases thymic apoptosis and causes defective T Cell receptor signaling. *J. Clin. Invest.,* **108,** 131-141.

23. Zhong, H., Chunn, J. L., Volmer, J. B., Fozard, J. L. and **Blackburn, M. R.** (2001) Adenosine mediated mast cell degranulation in adenosine deaminase-deficient mice. *J. Pham. Exp. Ther.,* **298**, 433-440.

24. Chunn, J. L., Young, H. W. J., Zhong, H., Banerjee, S. K., Colasurdo, G. N. and **Blackburn, M. R.** (2001) Adenosine-dependent airway inflammation and hyperresponsiveness in partially adenosine deaminase deficient mice. *J. Immunol.,* **167,** 4676-4685.

25. Banerjee, S. K., Young, H. W. J., Volmer, J. B. and **Blackburn, M. R.** (2002) Gene expression profiling in inflammatory airway disease associated with elevated adenosine. *Am. J. Phys. Lung Cell Mol. Physiol.,* **282,** L169-L182.

26. Van De Wiele, C. J., Vaughn, J. G., **Blackburn, M. R.**, LeDent, C., Parmentier, M. Jacobson, M., and Thompson, L. F. (2002) An adenosine kinase inhibitor rescues thymocyte development and normalizes dATP levels in adenosine deaminase-deficient murine fetal thymic organ culture. *J. Clin. Invest.*, **110,** 395-402.

27. Khan, A. M., Elidemir, O., Epstein, C. E., Lally, K. P., Xue, H. **Blackburn, M. R.**, Larsen, G. L. and Colasurdo, G. N. (2002) Meconium aspiration produces airway hyperresponsiveness and eosinophilic inflammation in a murine model. *Am. J. Phys. Lung Cell Mol. Physiol.*, **283,** L785-L790.

28. Zhong, H., Sergiy, S., Molina, J. G., Sanborn, B. M., Jacobson, M. A., Tilley, S. L. and **Blackburn, M. R.** (2003) Activation of murine lung mast cells by the adenosine A_3 receptor. *J. Immunol*. **170,** 338-345.

29. **Blackburn, M. R.**, Chun, G. L., Young, H. W. J., Zhu, Z., Chunn, J. L., Kang, M. J., Banerjee, S. K., and Elias, J. A. (2003) Adenosine mediates IL-13-induced inflammation and remodeling in the lung and interacts in an IL-13-adenoisne amplification pathway. *J. Clin. Invest.* **112,** 332-344.

30. Turner, C. P., Seli, M., Ment, L., Stewart, W., Yan, H., Johansson, B., Fredholm, B. B., **Blackburn, M. R.** and Rivkees, S. A. (2003) A1 adenosine receptors mediate hypoxia-induced ventriculomegaly. *Proc. Natl. Acad. Sci. USA* **100,** 11718-11722.

31. Aldrich, M. B., Chen, W., **Blackburn, M. R.**, Martinez-Valdez, H., Datta, S. K. and Kellems, R. E. (2003) Impaired germinal center maturation in adenosine deaminase deficiency. *J. Immunol.* **171,** 5562-5570.

32. Banerjee, S. K., Young, H. W. J., Barczak, A., Earle, D. and **Blackburn, M. R.** (2004) Abnormal alveolar development associated with elevated adenine nucleosides. *Am. J. Respir. Cell Mol. Biol.* **30,** 38-50.

33. Turner, C. P., **Blackburn, M.** and Rivkees, S. A. (2004) A1 adenosine receptors mediate hypoglycemia-induced neuronal injury. *J. Mol. Endo.* **32,** 129-144.

34. Babich, L. G., Ku, C. K., Young, H. W. J., Huang, H., **Blackburn, M. R.** and Sanborn, B. M. (2004) Expression of capacitative calcium TrpC proteins in rat myometrium during pregnancy. *Biol. Reprod.* **70,** 919-924.

35. Young, H. W. J., Molina, J. G., Dimina, D., Zhong, H., Jacobson, M., Chan, L.-N. L., Chan, T. S., Lee, J. J. and **Blackburn, M. R.** (2004) A_3 adenosine receptor signaling contributes to airway inflammation and mucus production in adenosine deaminase-deficient mice. *J. Immunol.* **173,** 1380-1389.

36. Evans, C. M., Williams, O. W., Tuvim, M. J., Nigam, R., Mixides, G. P., **Blackburn, M. R.**, Demayo, F. J., Burns, A. R., Smith, C., Reynolds, S. D., Stripp, B. R. and Dickey, B. F. (2004) Mucin is produced by clara cells in the proximal airways of antigen-challenged mice. *Am. J. Respir. Cell Mol. Biol.* **31,** 382-394.

37. Sun, C.-X., Young, H. W., Molina, J. G., Volmer, J. B., Schnermann, J. and **Blackburn, M. R.** (2005) A protective role for the A1 adenosine receptor in adenosine-dependent pulmonary injury. *J. Clin. Invest.* **115**, 35-43.

38. Reichelt, M., Willems, L., Molina, J. G., Sun, C.-X., Noble, J. C., Ashton, K. J., Schnermann, J., **Blackburn, M. R.** and Headrick, J. P. (2005) Genetic deletion of the A1 adenosine receptor limits myocardial ischemic tolerance. *Circ. Research* **96,** 363-367.

39. Chunn, J. L., Molina, J. G., Mi, T., Xia, Y., Kellems, R. E. and **Blackburn, M. R.** (2005) Adenosine-dependent pulmonary fibrosis in adenosine deaminase-deficient mice. *J. Immunol.* **175,** 1937-1946.

40. Zhang, J., Kaasik, K., **Blackburn, M. R.** and Lee, C. C. (2006) Constant darkness is a circadian metabolic signal in mammals. *Nature* **439,** 340-343.

41. Chunn, J. L., Mohsenin, A., Young, H. W. J., Lee, C. G., Elias, J. A., Kellems, R. E. and **Blackburn, M. R.** (2006) Partially adenosine deaminase-deficient mice develop pulmonary fibrosis in association with adenosine elevations. *Am. J. Phys. Lung Cell Mol. Physiol.* **290,** 579-587.

42. Volmer, J. B., Thompson, L. F. and **Blackburn, M. R.** (2006) A protective role for ecto-5'-nucleotidase (CD73) in bleomycin-induced pulmonary fibrosis. *J. Immunol.* **176,** 4449-4458. (Featured on Journal Cover)

43. Ma, B., **Blackburn, M. R.**, Lee, C. G., Homer, R. J., Flavell, R. A., Lifton, R. P., Sun, Chun-Xiao, Young, H. W. and Elias, J. A. (2006) Adenosine metabolism and murine strain-specific IL-4-induced inflammation, emphysema and fibrosis. *J. Clin. Invest.* **116,** 1274-1283.

44. Van De Wiele, C. J., Vaughn, J. G., **Blackburn, M. R.** and Thompson, L. F. (2006) Further differentiation of double positive thymocytes is inhibited in adenosine deaminase-deficient murine fetal thymic organ cultures. *J. Immunol.* **176**, 5925-5933**.**

45. Willems, L., Reichelt, M.E., Molina, J.G., Sun, C.-X., Chunn, J.L., Ashton, K.J., Schnermann, J., **Blackburn, M. R.** and Headrick, J.P. (2006) Effects of genetic deletion of adenosine deaminase and A1 receptors in normoxic and ischemic mouse hearts. *Cardiovascular Res.* **71,** 79-87.

46. Sun, C. X., Zhong, H., Mohsenin, A., Morschl, E., Chunn, J. L., Molina, J. G., Belardinelli, L., Zeng, D. and **Blackburn, M. R.** (2006) Role of A_{2B} adenosine receptor signaling in adenosine-dependent

pulmonary inflammation and injury in adenosine deaminase deficient mice. *J. Clin. Invest.* ***116,*** 2173-2182.

47. Carbonaro, D. A., Jin, X., Petersen, D., Wang, X., Dorey, F., Kil, K. S., Aldrich, M., **Blackburn, M. R.**, Kellems, R. E. and Kohn, D. B. (2006) In vivo transduction by intravenous injection of a lentiviral vector expressing human ADA into neonatal ADA gene knock-out mice: A novel form of enzyme replacement therapy for ADA-deficiency. *Mol. Therapy* **13,** 1110-1120.

48. Young, H. W. J., Sun, C.-X., Evans, C. M., Jacobson, M. A., Dickey, B. and **Blackburn, M. R.** (2006) A3 adenosine receptor signaling contributes to airway mucin secretion following allergen challenge. *Am. J. Respir. Cell Mol. Biol.* **35,** 549-558. (Featured on Journal Cover).

49. Reichelt, M. E., Willems, L., Peart, J. N., Ashton, K. J., Matherne, P., **Blackburn, M. R.**, and Headrick, J. P. (2007) Modulation of ischaemic contracture in mouse hearts: a "supraphysiological" response to adenosine. *Exp. Physiol.* **92,** 175-185.

50. Mohsenin, A., Burdick, M. D., Molina, J. G., Keane, M. P. and **Blackburn, M. R.** (2007) Adenosine mediated CXCL1 production and angiogenesis in the lungs of adenosine deaminase deficient mice. *FASEB J.* **21,** 1026-1036.

51. Ochkur, S. I., Jacobsen, E. A., Protheroe, C. A., Biechele, T. L., Pero, R. S., McGarry, M. P., Wang, H., O'Neil, K., Colbert, D. C., Colby, T. V., Shen, H., **Blackburn, M. R.**, Irvin, C. C., Lee, J. J. and Lee, N. A. (2007) Coexpression of IL-5 and eotaxin-2 in mice creates an eosinophil-dependent model of respiratory inflammation with characteristics of severe asthma. *J. Immunol.* **178,** 7879-7889.

52. Mohsenin, A., Mi, T., Xia, Y., Kellems, R. E., Chen, J. F., and **Blackburn, M. R.** (2007) Genetic removal of the A_{2A} adenosine receptor enhances pulmonary inflammation mucin production and angiogenesis in adenosine deaminase deficient mice. *Am. J. Phys. Lung Cell Mol. Physiol.* **293,** L753-L761.

53. Young, H. W. J., Williams, O. W., Chandra, D., Bellinghausen, L. K., Perez, G., Saurez, A., Tuvim, M. J., Roy, M. G., Alexander, S. N., Moghaddam, S. J., Adachi, R., **Blackburn, M. R.**, Dickey, B. F. and Evans, C. M. (2007) Central role of Muc5ac expression in mucous metaplasia and its regulation by conserved 5' elements. *Am. J. Respir. Cell Mol. Biol.* **37***,* 273-290.

54. Csoka, B., Nemeth, Z. H., Virag, L., Gergely, P., Leibovich, S. J., Sun, C.-X., **Blackburn, M. R.**, Vizi, E. S., Deitch, E. A. and Hasko, G. (2007) A2A adenosine receptors and C/EBPbeta are crucially required for IL-10 production by macrophages exposed to E. coli. *Blood*, **110,** 2685-2695.

55. Ryzhov, S. V., Zaynagetdinov, R., Goldstein, A. E., Novitskiy, S. V., **Blackburn, M. R.**, Biaggioni, I. and Feoktistov, I. (2008) Effect of A2B adenosine receptor gene ablation on adenosine-dependent regulation of proinflammatory cytokines. *J. Exp. Pharmacol. Therap*. **324,** 694-700.

56. Lewis, C. C., Yang, J. Y. H., Huang, X., Banerjee, S. K., **Blackburn, M. R.**, Baluk, P., McDonald, D., Blackwell, T. S. Nagabhushanam, V. Peters, W. Voehringer, D. and Erle, D. J. (2008) Disease-specific gene expression profiling in multiple models of lung disease. *Am. J. Respir Crit. Care Med.* **177,** 376-387.

57. Mi, T., Abbassi, S., Zhang, H., Uray, K., Chunn, J. L., Xia, L. W., Molina, J., Weisbrodt, N. W., Kellems, R. E., **Blackburn, M. R.** and Xia, Y. (2008) Excess adenosine in murine penile erectile tissues contributes to priapism via A2B adenosine receptor signaling. *J. Clin, Invest.* **118,** 1491-1501.

58. Takedachi, M., Qu, D., Ebisuno, Y., Oohara, H., Joachims, M. L., McGee, S. T., Maeda, E., McEver, R. P., Tanaka, T., Miyasaka, M., Murakami, S., Krahn, T., **Blackburn, M. R.** and Thompson, L. F. (2008) CD73-generated adenosine restricts lymphocyte migration into draining lymph nodes. *J. Immunol.* **180,** 6288-6296.

59. Ryzhov, S., Zaynagetdinov, R., Goldstein, A. E., Novitskiy, S. V., Dikov, M. M., **Blackburn, M. R.**, Biaggioni, I. and Feoktistov, I. (2008) Effects of A2B adenosine receptor gene ablation on pro-inflammatory adenosine signaling in mast cells. *J. Immunol.* **180,** 7212-7229.

60. Fernandez, P., Trzaska, S., Wilder, T., Chiriboga, L., **Blackburn, M. R.**, Cronstein, B. N. and Chan, E. S. L. (2008) Pharmacological blockade of A2A receptors prevents dermal fibrosis in a model of elevated tissue adenosine. *Am. J. Pathol.* **172,** 1675-1682.

61. Welsh, K. J., Abbott, A. N., Hwang, S.-A., Indrigo, J., Armitige, L. Y., **Blackburn, M. R.**, Hunter, R. L. and Actor, J. K. (2008) A role for tumor necrosis factor-alpha, complement C5 and interleukin-6 in the initiation and development of the mycobacterial cord factor trehalose 6,6'-dimycolate induced granulomatous response. *Microbiology* **154,** 1813-1824.

62. Carbonaro, D. A., Jin, X., Cotoi, D., Yu, X. J., Skelton, D., Mi, T., Dorey, F., Kellems, R. E., **Blackburn, M. R.** and Kohn, D. B. (2008) Neonatal bone marrow transplantation of ADA-deficient SCID mice results in immunological reconstitution despite low levels of engraftment and an absence of selective donor T lymphoid expansion. *Blood* **111,** 5745-5754.

63. Joachims, M. L., Marble, P., Knott-Craig, C., Pastuszko, P., **Blackburn, M. R.** and Thompson, L. F. (2008) Inhibition of deoxynucleoside kinases in human thymocytes prevents dATP accumulation and induction of apoptosis. *Nucleosides Nucleotides Nucleic Acids* **27,** 816-820.

64. Novitskiy, S. V., Ryzhov, S., Zaynagetdinov, R., Goldstein, A. E., Huang, Y., Tikhomirov, O. Y., **Blackburn, M. R.**, Biaggioni, I., Carbone, D. P., Feoktistov, I., and Dikov, M. M. (2008) Adenosine receptors in the regulation of dendritic cell differentiation and function. *Blood* **112,** 1822-1831.

65. Morschl, E., Molina, J. G., Volmer, J., Mohsenin, A., Pero, R. S., Hong, J. S., Kheradmand, F., Lee, J. J. and **Blackburn, M. R.** (2008) A3 adenosine receptor signaling influences pulmonary inflammation and fibrosis. *Am. J. Respir. Cell Mol. Biol.***39,** 697-705**.** (Featured on Journal Cover)

66. Zhai, Y., Zhong, Z., Chen, C. Y., Xia, Z., Song, L., **Blackburn, M. R.** and Shyu, A. B. (2008) Coordinated changes in mRNA turnover, translation, and RNA processing bodies in bronchial epithelial cells following inflammatory stimulation. *Mol. Cell Biol.* **28,** 7414-7426.

67. Joachims, M. L., Marble, P. A., Laurent, A. B., Pastuszko, P., Paliotta, M., **Blackburn, M. R.** and Thompson, L. F. (2008) Restoration of adenosine deaminase-deficient human thymocyte development in vitro by inhibition of deoxynucleoside kinase. *J. Immunol.* **181,** 8152-8161.

68. Peng, Z. Borea, P. A., Wilder, T., **Blackburn, M. R.**, Azzena, G., Resta, G. and Cronstein, B. N. (2009) Adenosine signaling plays a central role in ethanol-induced fatty liver. *J. Clin. Invest.* **119,** 582-594.

69. Zhou, Y., Mohsenin, A., Morschl, E., Young, H. W. J., Molina, J. G., Ma, W., Sun, C. X., Martinez-Valdez, H. and **Blackburn, M. R.** (2009) Enhanced airway inflammation and remodeling in adenosine deaminase deficient mice lacking the A2B adenosine receptor. *J. Immunol.* **182,** 8037-8046.

70. Reichelt, M. E., Shanau, A., Willems, L., Witting, P. K., Ellis, N. A., **Blackburn, M. R.** and Headrick, J. P (2009) Endogenous adenosine selectively modulates oxidant stress via the A1 receptor in ischemic hearts. *Antioxid. Redox Signa* **11,** 2641-2650.

71. Zaynagetdinov R., Ryzhov S., Goldstein A.E. , Yin H., Novitskiy S.V., Goleniewska K., Polosukhin V.V., Newcomb D.C., Mitchell D., Morschl E., Zhou Y., **Blackburn M. R.**, Peebles R.S. , Biaggioni I. and Feoktistov I. (2010) Attenuation of Chronic Pulmonary Inflammation in A_{2B} Adenosine Receptor Knockout Mice. *Am. J. Respir. Cell Mol. Biol.* **42,** 564-571.

72. Schneider, D. J., Lindsay, J. C., Zhou, Y., Molina, J. G and **Blackburn, M. R.** (2010) Adenosine and osteopontin contribute to the development of chronic obstructive pulmonary disease. *FASEB J* **24,** 70-80.

73. Yang, A., Mucsi, A. D., Desrosiers, M. D., Chen, J. F., Schnermann, J. B., **Blackburn, M. R.** and Shi, Y. (2010) Adenosine mediated desensitization of cAMP signaling enhances T cell responses. *Eur. J. Immunol.***40,** 449-459.

74. Wen, J., Jiang, X., Dai, Y., Zhang, Y., Tang, Y., Sun, Y., Mi, T., Kellems, R. E., **Blackburn, M. R.** and Xia, Y. (2010) Adenosine deaminase enzyme therapy prevents and reverses the heightened cavernosal relaxation in priapism. *J. Sex Med.* **24;** 740-749.

75. Wen, J., Jiang, X., Dai, Y., Zhang, Y., Tang, Y., Sun, H., Mi, T., Phatarpekar, P. V., Kellems, R. E., **Blackburn, M. R.** and Xia, Y. (2010) Increased adenosine contributes to penile fibrosis, a dangerous feature of priapism, via A2B adenosine receptor signaling. *FASEB J* **24, 740-749.**

76. Zhou, Y., Murthy, J., Zeng, D., Belardinelli, L. and **Blackburn, M. R.** (2010) Alterations in adenosine metabolism and signaling in patients with chronic obstructive pulmonary disease and idiopathic pulmonary fibrosis. *PloS ONE* **5,** 3 9224**.**

77. Lu, Q., Harrington, E. O., Newton, J., Casserly, B., Radin, G., Warburton, R., Zhou, Y., **Blackburn, M. R.** and Rounds, S. (2010) Adenosine protected against pulmonary edema through transported- and receptor A2-mediated endothelial barrier enhancement. *Am. J. Physiol. Lung Cell Mol. Physiol.* **298;** L755-767.

78. Csoka, B., Nemeth, Z. H., Rosenberger, P., Eltzschig, H. K., Spolarics, Z., Pacher, P., Selmeczy, Z., Koscso, B., Himer, L., Vizi, E. S., **Blackburn, M. R.**, Deitch, E. A. and Hasko, G. (2010) A2B adenosine receptors protect against sepsis-induced mortality by dampening excessive inflammation. *J. Immunol.*, **185,** 542-550.

79. Daniels, I. S., Zhang, J., O'brien, W. G., Tao, Z., Miki, T., Zhao, Z., **Blackburn, M. R.** and Lee, C. C. (2010) A role of erythrocytes in adenosine monophosphate initiation of hypometabolism in mammals. *J. Biol. Chem.* **24,** 20716-20723.

80. Stoops, J. K., Arora, R., Armitage, L., Wanger, A., Song, L., **Blackburn, M. R.**, Krueger, G. R. and S. A. Risin (2010) Certain surfactants show promise in the therapy of pulmonary tuberculosis. *In Vivo*, **24;** 687-694.

81. Zhang, Y., Dai, Y., Wen, J., Zhang, W., Grenz, A., Sun, H., Tao, L., Lu, G., Alexander, D. C., Milburn, M. V., Carter-Dawson, L., Lewis, D. E., Zhang, W., Eltzschig, H. K., Kellems, R. E., **Blackburn, M. R.**, Juneja, H. S. and Xia, Y. (2011) Detrimental effects of adenosine signaling in sickle cell disease. *Nat. Med.* **17,** 79-86.

82. Zhou, Y., Schneider, D. J., Morschl, E., Song, L., Pedroza, M., Karmouty-Quintana, H., Le, T., Sun, C.X. and **Blackburn, M. R.** (2011) Distinct roles for the A2B adenosine receptor in acute and chronic stages of bleomycin-induced lung injury. *J. Immunol.* **186,** 1097-1106.

83. Abbott, A. N., Welsh, K. J., Hwang, S.-A., Ploszaj, P., Choudhury, T., Boyd, S., **Blackburn, M. R.**, Hunter, R. L., Actor, J. K. (2011) IL-6 Mediates 11βHSD type 2 to Effect Progression of the Mycobacterial Cord Factor Trehalose 6,6'-Dimycolate Induced Granulomatous Response. *Neuroimmunomodulation*. **18,** 212-225.

84. Oskouie, G. F., Shameli, A., Yang, A., Desrosiers, M. D., Mucsi, A. D., **Blackburn, M. R.**, Yang, Y., Santamaris, P. and Shi, Y. (2011) High levels of adenosine deaminase on dendritic cells promote autoreactive T cell activation and diabetes in nonobese diabetic mice. *J. Immunol.* **186,** 6798-6806.

85. Wen, J., Grenz, A., Zhang, Y., Dai, Y., Kellems, R. E., **Blackburn, M. R.**, Eltzschig, H. K. and Xia, Y. (2011) A2B adenosine receptor contributes to penile erection via PI3K/AKT signaling cascade-mediated eNOS activation. *FASEB J.*, **25,** 2823-2830.

86. Allen-Gibson, D. S., **Blackburn, M. R.**, Schneider, D. J., Zhang, H., Bluitt, D. L., Jarrell, J. C., Yanov, D., Sisson, J. H., and Wyatt, T. A. (2011) Adenosine activation of A2B receptor(s) is essential for stimulated epithelial ciliary motility and clearance. *Am. J. Physiol. Lung Cell Mol. Physiol.* **301,** L171-180.

87. Pedroza, M., Schneider, D. J., Karmouty-Quintana, H., Coote, J., Shaw, S., Corrigan, R., Molina, J. G., Alcorn, J. L., Galas, D., Gelinas, R. and **M. R. Blackburn.** (2011) Interleukin-6 contributes to inflammation and remodeling in a model of adenosine mediated lung injury. *PloS One* **6,** e22667.

88. Ma, W., Ortiz-Quintero, B., Rangel, R., McKeller, M. R., Herrera-Rodriguez, S., Castillo, E. F., Schluns, K. S., Hall, M., Zhang, H., Woong-Kyung, S., Okada, H., Mak, T. W., Zhou, Y., **Blackburn, M. R.** and Martinez-Valdez, H. (2011) Coordinate activation of inflammatory gene networks, alveolar destruction and neonatal death in AKNA deficient mice. *Cell Res.* **21,** 1564-1577.

89. Ryzhov, S., Novitskiy, S. V., Goldstein, A. E., Biktasova, A., **Blackburn, M. R.**, Biaggioni, I., Dikov, M. M. and Feoktistov, I. (2011) Adenosinergic regulation of the expansion of immunosuppressive activity of CD11b+Gr1+ cells. *J. Immunol.* **187,** 6120-6129.

90. Schneider, D. J., Wu, M., Le, T. T., Cho, S.-H., Brenner, M. B., **Blackburn, M. R.** and Agarwal, S. K. (2012) Cadherin-11 contributes to pulmonary fibrosis: Potential role in TGF beta production and epithelial to mesenchymal transition. *FASEB J*. **26,** 503-512.

91. Zhang, W., Wang, W., Yu, H., Zhang, Y., Dai, Y., Ning, C., Tao, L., Sun, H., Kellems, R. E., **Blackburn, M. R.** and Xia, Y (2012) Interleukin 6 underlies angiotensin II-induced hypertension and chronic renal damage. *Hypertension* **59,** 136-144.

92. Grenz, A., Bauerle, J. D., Dalton, J. H., Ridyard, D., Badulak, A., Tak, E., McNamee, E. N., Clambey, E., Moldovan, R., Reyes, G., Klawitter, J., Ambler, K., Magee, K., Christians, U., Brodsky, K. S., Ravid, K., Choi, D.-S., Wen, J., Lukashev, D., **Blackburn, M. R.**, Osswald, H., Coe, I. R., Nurnber, B., Haase, V. H., Xia, Y., Sitkovsky, M., and Eltzschig, H. K. (2012) Equilibrative nucleoside transporter ENT1 regulates post-ischemic blood-flow during acute kidney injury in mice. *J. Clin. Invest.* **112,** 693-710. **Retraction (June 2017) - https://www.jci.org/articles/view/94890**

93. Wu, M., Schneider, D. J., Mayes, M., Assassi, S., Arnett, F. C., Tan, F. K., **Blackburn, M. R.**, and Agarwal, S. K. (2012) Osteopontin in systemic sclerosis and its role in dermal fibrosis. *Arthritis Rheum.* **132,** 1605-1614.

94. Karmouty-Quintana, H., Zhong, H., Acero, L., Weng, T., Melicoff, E., West, D. W., Hemnes, A., Grenz, A., Eltzschig, H. K., Blackwell, T. S., Xia, Y., Johnston, R. A., Zeng, D., Belardinelli, L. and **Blackburn, M. R.** (2012) The A2B adenosine receptor modulates pulmonary hypertension associated with interstitial lung disease. *FASEB J.* **26,** 2546-2557.

95. Ryzhov, S., Goldstein, A., Novitskiy, S., **Blackburn, M. R.**, Biaggioni, I. and Feoktistov, I. (2012) Role of A2B adenosine receptors in regulation of paracrine functions of stem cell antigen (Sca)-1 positive cardiac stromal cells. *J. Pharmacol. Exp. Ther.* **341,** 764-774.

96. Ma, W., McKeller, M. R., Rangel, R., Ortiz-Quintero, B., **Blackburn, M. R.** and Martinez-Valdez, H. (2012) Spare PRELI Gene Loci: Failsafe chromosome insurance? *PloS One* **7,** e37949.

97. Carbonaro, D. A., Jin, X., Wang, X., Yu, X.-J., Rozengurt, N., Kaufman, M. L., Wang, X., Gjertson, D., Zhou, Y., **Blackburn, M. R.** and Kohn, D. B. (2012) Gene Therapy/Bone Marrow Transplant in ADA-deficient Mice: Roles of Enzyme Replacement Therapy and Cytoreduction. *Blood.* **120,** 3677-3687.

98. Lu, Q., Newton, J., Hsiao, V., Shamirian, P., **Blackburn, M. R.** and Pedroza, M. (2012) Sustained adenosine exposure causes lung endothelial barrier dysfunction via nucleoside transporter-mediated signaling. *Am. J. Respir. Cell. Mol. Biol.*, **47,** 604-613.

99. Wu, H., Chen, L., Zhang, X., Zhou, Q., Li, J. M., Berger, S., Borok, Z., Zhou, Z., Yin, H., Liu, M., Wang, Y., Jin, J., **Blackburn, M. R.**, Xia, Y. and Zhang, W. (2013) Aqp5 is a new transcriptional factor of Dot1a and a regulator of Aqp2. PloS One, **8,** e53342.

100. Weng, T., Karmouty-Quintana, H., Garcia-Morales, L. J., Molina, J. G., Pedroza, M., Bunge, R. R., Bruckner, B. A., Loebe, M., Seethamraju, H. and **Blackburn, M. R.** (2013) Hypoxia-induced deoxycytidine kinase expression contributes to apoptosis in chronic lung disease. *FASEB J.* **27,** 2013-2026. PMID: 2339349

101. Li, H., Zhang, Z., **Blackburn, M. R.**, Wang, S. W., Ribelayga, C. P. and O'Brien, J. (2013) Adenosine and dopamine receptors coregulate photoreceptor coupling via gap junction phosphorylation in mouse retina. *J. Neurosci.* **13,** 3135-3150.

102. Zhang, W., Zhang, Y., Wang, W., Dai, Y. Ning, C., Luo, R., Sun, K., Glover, L., Grenz, A., Sun, H., Tao, L., Zhang, W., Colgan, S. P., **Blackburn, M. R.**, Eltzschig, H. K., Kellems, R. E., and Xia, Y. (2013) Elevated ecto-5'-nucleotidase-mediated increased renal adenosine signaling via A2B adenosine receptor contributes to chronic hypertension. *Circ. Res.* **112,** 1466-1478.

103. Eckle, T., Hughes, K., Ehrentraut, H., Brodsky, K. S., Rosenberger, P., Choi, D. S., Ravid, K., Weng, T., Xia, Y., **Blackburn, M. R.**, and Eltzschig, H. K. (2013) Crosstalk between the equilibrative nucleoside transporter ENT2 and alveolar Adora2b adenosine receptors dampens acute lung injury. *FASEB J.* **27,** 3078-3089.

104. Barreno, R. X., Richards, J. B., Schneider, D. J., Cromar, K. R., Nadas, A. J., Hernandez, C. B., Halberg, L. M., Price, R. E., Hashmi, S. S., **Blackburn, M. R.**, Haque, I. U. and Johnston, R. A. (2013) Endogenous osteopontin promotes ozone-induced neutrophil recruitment to the lungs and airway hyperresponsiveness to methacholine. *Am. J. Physiol. Lung* **305,** L118-129.

105. Zimmerman, M. A., Tak, E., Ehrentraut, S. F., Kaplan, M., Gieber, A., Weng, T., Choi, D. S., **Blackburn, M. R.**, Kam, I, Eltzschig, H. K. and Grenz, A (2013) Equilibrative nucleoside transporter (ENT)-1-dependent elevation of extracellular adenosine protects the liver during ischemia and reperfusion. *Hepatology* **58,** 1766-1778. **Retraction (June 2017)**

106. Karmouty-Quintana, H., Weng, T., Garcia-Morales, L. J., Chen, N. Y., Pedroza, M., Zhong, H., Molina, J. G., Bunge, R., Bruckner, B. A., Xia, Y., Johnston, R. A., Loebe, M., Zeng, D., Seethamaraju, H., Belardinelli, L. and **Blackburn, M. R.** (2013) ADORA2B and hyaluronan modulate pulmonary hypertension associated with chronic obstructive pulmonary disease. *Am. J. Respir. Cell. Mol. Biol.* **49,** 1038-1047. PMID: 23855769

107. Wang, J., Webb-Robertson, B. J., Matzke, M. M., Varnum, S. M., Brown, J. N., Riensche, R. M., Adkins, J. N., Jacobs, J. M., Hoidal, J. R., Scholand, M. B., Rounds, J. G., **Blackburn, M. R.**, Rodland, K. D. and McDermott, J. E. (2013) A semiautomated framework for integrating exert knowledge into disease marker identification. *Dis. Markers* **35,** 513-523.

108. Roy. G. R. Livraghi-Butrico, A., Fletcher, A. A., McElwee, M. M., Evans, S. E., Boerner, R. M., Alexander, S. N., Bellinnghausen, L. K., Song, S., Petrova, Y. M., Tuvim, M. J., Adachi, R., Romo, I., Bordt, M., Bowden, M. G., Sisson, J. H., Woodruff, P. G., thornton, D. J., Rousseau, D. K., De La Garza, M. M., Moghaddam, S. J., Karmouty-Quintana, H., **Blackburn, M. R.**, Drouin, S. M., Davis, C. W., Terrell, K., A., Grubb, B. R., O'Neal, W. K., Flores, SA. C., Cota-Gomez, A., Lozupne, C. A., Donnelly, J. A., Watson, A. M., Hennessy, C. E., Keith, R. C., Yang, I. V., Barthel, L., Hensen, P. M., Jannssen, W. J., Schwartz, D., A., Boucher, R. C., Dickey, B. F. and Evans, C. M. (2014) Muc5b Is Required for Airway Defense. *Nature* **505,** 412-416.

109. Li, J. M., Wu, H., Zhang, W., **Blackburn, M. R.** and Jin, J. (2014) The p97-UFD1L-NPL4 protein complex mediates cytokinie-induced IKBa proteolysis. *Mol. Cell Biol.* **34,** 335-347.

110. Ning, C., Wen, J., Zhang, Y., Dai, Y., Wang, W., Zhang, W., Qi, L., Grenz, A., Eltzschig, H. K. , **Blackburn, M. R.**, Kellems, R. E. and Xia, Y. (2014) Excess adenosine A2B receptor signaling contributes to priapism through HIF-1α mediated reduction of PDE5 gene expression. *FASEB J.* **28,** 2725-2735. PMID: 24614760

111. Dahm. P. H., Richards, J. B., Karmouty-Quintana, H., Cromar, K. R., Sur, S., Price, R. E., Malik, F., Spencer, C. Y., Barreno, R. X., Hashmi, S. S., **Blackburn, M. R.**, Haque, I. U. and Johnston, R. A. (2014) Effect of antigen sensitization and challenge on oscillatory mechanics of the lung and pulmonary inflammation in obese carboxypeptidase E-deficient mice. *Am. J. Physiol. Integr. Comp. Physiol.* **307,** R621-633. PMID: 25009214

112. Le, T. T. T., Karmouty-Quintana, H., Melicoff, E., Le, T. T. T., Weng, T., Chen, N. Y., Pedroza, M., George, A. T., Garcia-Morales, L. J., Bunge, R. R., Bruckner, B. A., Loebe, M., Seethamraju, H., Agarwal, S. K. and **Blackburn, M. R.** (2014) Blockade of interleukin-6 trans signaling attenuates pulmonary fibrosis. *J. Immunol.* **193,** 3755-3768. PMID: 25172494 (Featured on Journal Cover)

113. Davies, J., Karmouty-Quintana, H., Le, T. T., Chen, N. Y., Weng, T., Luo, F., Molina, J., Moorthy, B. and **Blackburn, M. R.** (2014) Adenosine promotes vascular barrier function in hyperoxic lung injury. *Physiol. Reports* **28,** e12155. PMID: 25263205

114. Weng, T., Poth, J. M., Karmouty-Quintana, H., Garcia-Morales, L. J., Melicoff, E., Chen, N. T., Evans, C. M., Bunge, R. R., Bruckner, B. A., Loebe, M., Volcik, K. A., Eltzschig, H. K. and **Blackburn, M. R.** (2014) Hypoxia-induced deoxycytidine kinase contributes to epithelial proliferation in pulmonary fibrosis. *Am. J. Crit. Care Med.* **190,** 1402-1412. PMID: 25358054

115. Yang, W., Hu, b., Wu, W., Batra, S., **Blackburn, M. R.**, Alcorn, J. L., Fallon, M. B., and Zhang, J. (2014) Alveolar type II epithelial cell dysfunction in rat experimental hepatopulmonary syndrome (HPS). *PLoS One* **9,** e113451. PMID: 25419825

116. Karmouty-Quintana, H., Philip, K., Chen, N. Y., Weng, T., Molina, J. G., Luo, F., Davies, J., Acero, L., Le, Bao, Bunge, I., Volcik, K., Le, T., Johnston, R. A., Xia, Y., Eltzschig, H. K. and **Blackburn, M. R.** (2015) Deletion of ADORA2B from myeloid cells dampens lung fibrosis and pulmonary hypertension. *FASEB J.* **29,** 50-60. PMID: 25318478

117. Iriyama, T., Sun, K., Parchim, N. F., Li, J., Zhao, C., Song, A., Hart, L. A., Blackwell, S. C., Sibai, B. M., Chan, L. L., Chan, T., Hicks, M. J., **Blackburn, M. R.**, Kellems, R. E. and Xia, Y. (2015) Elevated placental adenosine signaling contributes to the pathogenesis of preeclampsia. *Circulation* **131,** 730-741. PMID: 25538227

118. Sun, K., Zhang, Y., Bogdanov, M. V., Wu, H., Song, A., Li, J., Dowhan, W., Idowu, M., Juneja, H. S., Molina, J. G., **Blackburn, M. R.**, Kellems, R. E. and Xia, Y. (2015) Elevated adenosine signaling via adenosine A2B receptor induces normal and sickle erythrocyte spingosine kinase 1 activity in humans and mice. *Blood* **125,** 1643-1652 PMID 25587035

119. Evans, C. M., Raclawska, D. S., Ttofali, F., Liptzin, D. R., Fletcher, A. A., Harper, D. N., McGing, M. A., MElwee, M. M., Williams, O. W., Sanchez, E., Roy, M. G., Kindrachuk, K. N., Wynn, T. A., Eltzschig, H. K., **Blackburn, M. R.**, Tuvim, M. J., Janssen, W. J., Schwartz, D. A. ad Dickey, B. F. (2015) The polymeric mucin Muc5ac is required for allergic airway hyperreactivity. *Nat. Commun.* **17,** 6281. PMID 25687754

120. Hoegl, S., Brodsky, K. S., **Blackburn, M. R.**, Karmouty-Quintana, H., Zwissler, B. and Eltzschig, H. K. (2015) Alveolar epithelial A2B adenosine receptors in pulmonary protection during acute lung injury. *J. Immunol.* **15,** 1815-1824 PMID: 26188061

121. Pedroza, M., Le, T. T., Lewis, K., Karmouty-Quintana, H., To, S., George, A. T., **Blackburn, M. R.**, Tweardy, D. J. and Agarwal, S. K. (2016) STAT-3 contributes to pulmonary fibrosis through epithelial injury and fibroblast-myofibroblast differentiation. *FASEB J.* **30,** 129-140. PMID: 26324850

122. Garcia-Morales, L. J. , Chen, N. Y., Weng, T., Luo, F., Davies, J., Philip, K., Volcik, K. A., Melicoff, E., Amione-Guerra, J., Bunge, R. R., Bruckner, B. A., Loebe, M., Eltzschig, H. K., Pandit, L. M. , **Blackburn, M. R.** and Karmouty-Quintana, H. (2015) Altered Hypoxic-Adenosine Axis and Metabolism in Group III Pulmonary Hypertension. *Am. J. Respir. Cell Mol. Biol.* **54,** 574-583. PMID: 26414702

123. Razvi, S. S., Richards, J. B., Malik, F., Cromar, K. R., Price, R. E., Bell, C. S., Weng, T., Atkins, C. L., Spencer, C. Y., Cockerill, K. J., Alexander, A. L., **Blackburn, M. R.**, Alcorn, J. L., Haque, I. U. and Johnston, R. A. (2015) Restin deficiency in mice has no effect on pulmonary responses induced by acute ozone exposure. *Am. J. Physiol. Lung Cell Mol. Physiol.* **15,** L1174-1185, PMID: 2638612

124. Luo, F., Le, N. B., Mills, T., Chen, N. Y., Karmouty-Quintana, H., Molina, J. G., Davies, J., Philip, K., Volcik, K. A., Liu, H., Xia, Y., Eltzschig, H. K. and **Blackburn, M. R.** (2015) Extracellular adenosine levels are associated with the progression and exacerbation of pulmonary fibrosis. *FASEB J.* **30,** 874-883. PMID: 26527068

125. Iriyama, T., Sun, K., Parchim, N. F., Li, J., Zhao, C., Song, A., Hart, L. A., Blackwell, S. C., Sibai, B. M., Chan, L. N., Chan, T. S., Hicks, J. M., **Blackburn, M. R.**, Kellems, R. E. and Xia, Y. (2015) Response to Letter Regarding Article, "Elevated Placental Adenosine Signaling Contributes to the Pathogenesis of Preeclampsia". *Circulation* **132(18)** PMID: 26527698

126. Bowser, J. L., **Blackburn, M. R.**, Shipley, G. L., Molina, J. G., Dunner, K. Jr. and Broaddus, R. R. (2015) Loss of CD73-mediated actin polymerization promotes endometrial tumor progression *J. Clin. Invest.* **126,** 220-238. PMID: 26642367

127. Wirsdorfer, F., de Leve, S., Cappuccini, f., Eldth, T., Meyer, A. V., Gau, E., Thompson, L. F., Chen, N. Y., Karmouty-Quintana, H., Fischer, U., Kasper, M., Klein, D., Ritchey, J. W., **Blackburn, M. R.**, Westendorf, A. M., Stuschke, M. and Jendrossek, V. (2016) Extracellular adenosine production by ecto-5'-nucleotidase (CD73) enhances radiation-induced lung fibrosis. *Cancer Res.* **76,** 3045-3056. PMID: 26921334

128. Hu, X., Adebiyi, M. G., Luo, J., Sun, K., Le, T. T., Zhang, Y., Wu, H., Zhao, S., Karmouty-Quintana, H., Liu, H., Huang, A., Wen, Y. E., Zaika, O. L., Mamenko, M., Pochynyuk, O. M., Kellems, R. E., Eltzschig, H. K., **Blackburn, M. R.**, Walters, E. T., Huang, D., Hu, H. and Xia, Y. (2016) Sustained elevated adenosine via ADORA2B promotes chronic pain through neuro-immune interaction. *Cell Rep.* **16,** 106-119. PMID 27320922

129. Liu, H., Zhang, Y., Wu, H., D'Alessandro, A., Yegutkin, G. G., Song, A., Sun, K., Li, J., Cheng, N. Y., Huang, A., Edward Wen, Y., Weng, T. T., Luo, F., Nemkov, T., Sun, H., Kellems, R. E., Karmouty-Quintana, H., Hansen, K. C., Zhao, B., Subudhi, A. W., Jameson-Van Houten, S., Julian, C. G., Lovering, A. T., Eltzschig, H. K., **Blackburn, M. R.**, Roach, R. C. and Xia, Y. (2016) Beneficial role of erythrocyte adenosine A2B receptor-mediated AMP-activated protein kinase activation in high-altitude hypoxia. *Circulation* **134,** 405-421. PMID 27482003

130. He, B., Hoang, T. K., Wang, T., Ferris, M., Taylor, C. M., Tian, X., Luo, M., Tran, D. Q., Zhou, J., Tatevian, N., Luo, F., Molina, J. G., **Blackburn, M. R.**, Gomez, T. H., Roos, S., Rhoads, J. M. and Liu, Y. (2017) Resetting microbiota by Lactobacillus reuteri inhibits T reg deficiency-induced autoimmunity via adenosine A2A receptors. *J. Exp. Med.* **214,** 107-123. PMID 27994068

131. Müller T., Fay, S., Vieira, R. P., Karmouty-Quintana, H., Cicko, S., Ayata, K., Zissel, G., Goldmann, T., Lungarella, G., Ferrari, D., Di Virgilio, F., Robaye, B., Boeynaems, J. M., **Blackburn, M. R.** and Idzko, M. (2017) The purinergic subtype P2Y2 mediates chemotaxis of neutrophils and fibroblasts in fibrotic lung disease. *Oncotarget* **30;**35962-35972. PMID: 28415591

132. Sun, K., Liu, H., Song, A., Manalo, J. M., D'Alessandro, A., Hansen, K. C., Kellems, R. E., Eltzschig, H. K., **Blackburn, M. R.**, Roach, R. C. and Xia, Y. (2017) Erythocyte purinergic signaling components underlie hypoxia adaptation. *J. Appl. Physiol.* **123,** 951-956. PMID: 28572494

133. Philip, K., Mills, T. W., Davies, J., Chen, N. Y., Karmouty-Quintana, H., Luo, F., Molina, J. G., Amione-Guerra, J., Sinha, N., Guha, A., Eltzschig, H. K. and **Blackburn, M. R**. (2017) HIF1A up-regulates the ADORA2B receptor on alternatively activated macrophages and contributes to pulmonary fibrosis. *FASEB J.* **31,** 4745-4758. PMID: 12871304

134. Huang, C., Xiao, X., Yang, Y., Mishra, A., Liang, Y., Zeng, X., Yang, X., Xu, D., **Blackburn, M. R.**, Henke, C. A. and Liu, L. (2017) MicroRNA-101 attenuates pulmonary fibrosis by inhibiting fibroblast proliferation and activation. *J. Biol. Chem.* **292,** 16420-16439. PMID: 28726637

135. Li, H., Karmouty-Quintana, H., Chen, Y. N., Mills, T., Molina, J., **Blackburn, M. R.** and Davies, J. (2017). Loss of CD73-mediated extracellular adenosine production exacerbates inflammation and abnormal alveolar development in newborn mice exposed to prolong hyperoxia. *Pediatr. Res.* (Epub ahead of print). PMID: 28832580

136. Müller, T., Fay, S., Vieira, R. P., Karmouty-Quintana, H., Cicko, S., Ayata, C. K., Zissel, G., Goldmann, T., Lungarella, G., Ferrari, D., Di Virgilio, F., Robaye, B., Boeynaems, J. M., Lazarowski, E. R., **Blackburn M. R.** and Idzko, M. (2017) P2Y6 receptor activation promotes inflammation and tissue remodeling in pulmonary fibrosis. *Front. Immunol.* 0.3389/fimmu.2017.01028. eCollection 2017. PMID: 28878780

137. Neudecker, V., Brodsky, K. S., Clambey, E. T., Schmidt, E. P., Packard, T. A., Davenport, B., Standiford, T. J., Weng, T., Fletcher, A. A., Barthel, L., Masterson, J. C., Furuta, G. T., Cai, C., **Blackburn, M. R.**, Ginde, A. A., Graner, M. W., Janssen. W. J., Zemans, R. L., Evans, C. M., Burnham, E. L., Homann, D., Moss, M., Kreth, S., Zacharowski, K., Henson, P. M. and Eltzschig, H. K. (2017) Neutrophil transfer of miR-223 to lung epithelial cells dampens acute lung injury in mice. *Sci. Transl. Med.* Sep 20;9(408). pii: eaah5360. doi: 10.1126/scitranslmed.aah5360. PMID: 28931657

138. Xiang, Y., Ye, Y., Lou, Y., Yang, Y., Cai, C., Zhang, Z., Mills, T., Chen, N. Y., Kim, Y., Muge Ozguc, F., Diao, L., Karmouty-Quintana, H., Xia, Y., Kellems, R. E., Chen, Z., **Blackburn, M. R.**, Yoo, S. H., Shyu, A. B., Mills, G. B. and Han, L. (2017) Comprehensive Characterization of Alternative Polyadenylation in Human Cancer. *J Natl Cancer Inst.* doi: 10.1093/jnci/djx223. [Epub ahead of print] PMID: 29106591

Book Chapters, Invited Reviews and Commentaries

1. **Blackburn, M. R.** and Kellems, R. E. (1996) Regulation and function of adenosine deaminase in mice. *Progress in Nucleic Acid Research and Molecular Biology*, W. E. Cohn and K. Moldave, eds., Academic Press, New York. Vol. 55, pp 195-226.

2. **Blackburn, M. R.** and Kellems, R. E. (1996) Utilizing transgenic mice to study gene regulation and function. *Molecular and Cellular Methods in Developmental Toxicology*, G.P. Daston, ed., CRC Press, Inc., Boca Raton. pp 49-68.

3. Thompson, L. F. and **Blackburn, M. R.** (1998) At last! Experimental models for adenosine deaminase deficiency. *The Immunologist* **6,** 72-75.

4. **Blackburn, M. R**. (1999) Examination of normal and abnormal placentation in the mouse. *Dev. Biol. Protocols* Vol I (eds., R. S. Tuan and C. W. Lo). pp. 179-187.

5. Aldrich, M. B., **Blackburn, M. R.** and Kellems, R. E. (2000) The importance of adenosine deaminase for lymphocyte development and function. *Biochem. Biophy. Res. Com.* **272,** 311-315.

6. Aldrich, M. B., **Blackburn, M. R.**, Datta, S. K., and Kellems, R. E. (2000) Adenosine deaminase-deficient mice: models for the study of lymphocyte development and adenosine signaling. Adv. Exp. Med. Biol. **486,** 57-63.

7. **Blackburn, M. R.** and Zhong, H. (2001) Adenosine mediated lung inflammation and damage; lessons from adenosine deaminase-deficient mice. *Drug Dev. Res.* **52**, 416-423.

8. **Blackburn, M. R.** (2003) Too much of a good thing: Adenosine overload in adenosine deaminase-deficient lungs. *Trends Pharmacol. Sci.*, **24,** 66-70.

9. Elias, J. A., Zheng, T., Lee, C.-G., Ma, B., **Blackburn, M. R.**, and Zhu, Z. (2003) Transgenic modeling of IL-13 in the lung. *Chest*, **123,** 339S-345S.

10. Banerjee, S. K. and **Blackburn, M. R.** (2003) Adenosine signaling and lung inflammation. In Biology of Airway Inflammation: Therapeutic Targets. N. T. Eissa and D. P. Huston editors, *Lung Biology in Health and Disease*, **177,** 681-698.

11. **Blackburn, M. R.**, and Young, H. W. J. (2003) Impact of endogenous adenosine on airway hyperresponsiveness. *Drug Dev. Res.*, **58,** 472-478.

12. Thompson, L. F., Vaughn, J. G., Laurent, A. B., **Blackburn, M. R.** and Van De Wiele, C. J. (2003) Mechanism of apoptosis in developing thymocytes as revealed by adenosine deaminase-deficient fetal thymic organ cultures. *Biochem. Pharmacol.* **66,** 1595-1599.

13. **Blackburn, M. R.**, and Kellems, R. E. (2005) Adenosine deaminase deficiency: metabolic basis of immune deficiency and pulmonary inflammation. *Adv. Immunol.* **86,** 1-41.

14. Mohsenin, A. and **Blackburn, M. R.** (2006) Adenosine signaling in asthma and COPD. *Curr. Opin. Pul. Med.* **12,** 54-59.

15. **Blackburn, M. R.** (2006) Adenosine signaling in chronic lung disease. In. Adenosine Receptors: Therapeutic Aspects for Inflammatory and Immune Diseases. G. Hasko, B. Cronstein and C. Szabo editors. pp 187-212.

16. Ashton, K. J., Peart, J. N., Morrison, R. R., Matherne, G. P., **Blackburn, M. R.** and Headrick, J. P. (2007) Genetic modulation of adenosine receptor function and adenosine handling in murine hearts: insights and issues. *J. Mol. Cell. Cardio.* **42,** 693-705.

17. **Blackburn, M. R.** (2007) A role for neural pathways in adenosine-induced bronchoconstriction. *Am. J. Phys. Lung Cell Mol. Physiol.,* **293**, L22-L24.

18. Zhou, Y., Schneider, D. J. and **Blackburn, M. R.** (2009) Adenosine signaling and the regulation of chronic lung disese. *Pharmacol. Therap.* **123,** 105-116.

19. **Blackburn, M.R.**, Vance, C. Morschl, E. and Wilson, C. (2009) Adenosine receptors and inflammation. In: Handbook for Experimental Pharmacology: Volume 20: Adenosine Receptors in Health and Disease. pp. 215-269.

20. Polosa, R. and **Blackburn, M. R.** (2009) Adenosine Receptors as targets for therapeutic intervention in respiratory diseases. *Trends Pharmacol. Sci.*, **30,** 528-535.

21. Dai, Y., Zhang, Y., Phatarpekar, P., Mi, T., Zhang, H., **Blackburn, M. R.** and Xia, Y. (2009) Adenosine signaling, priapism and novel therapies. *J. Sex Med.* **3,** 291-301.

22. **Blackburn, M. R.** (2011) P2Y6 and vascular inflammation. *Blood*. **117,** 2304-2305.

23. Thompson, L. F., Picher, M. and **Blackburn, M. R.** (2011) "Animal Models of Airway Disease" In *Purinergic Regulation of Respiratory Disease.* Eds. M. Picher and R. C. Boucher, *Subcell. Biochem.* **55,** 195-234.

24. Thompson, L. F. and **Blackburn M. R.** (2012) Pillar of Immunology Commentary. "Adenosine Deaminase Deficiency: Testing Ground for Novel Therapies". *J. Immunol.* **183,** 933-935.

25. Karmouty-Quintana, H., Xia, Y. and **Blackburn, M.R.** (2012) Adenosine Signaling in Acute and Chronic Disease States. *J. Mol. Med.* **91,** 173-181.

26. Blackwell, T. S , Tager, A. M., Borok, Z., Moore, B. B., Schwartz, D. A., Anstrom, K. J., Bar-Joseph Z., Bitterman, P., **Blackburn, M. R.**, Bradford, W., Brown, K. K., Chapman, H. A., Collard, H. R., Cosgrove, G. P., Deterding, R., Doyle, R., Flaherty, K. R., Garcia, C. K., Hagood, J. S., Henke, C. A., Herzog, E., Hogaboam, C. M., Horowitz, J. C., King, T. E. Jr., Loyd, J. E., Lawson, W. E., Marsh, C. B., Noble, P. W., Noth. I., Sheppard, D., Olsson, J., Ortiz, L. A., O'Riordan, T. G., Oury, T. D., Raghu, G., Roman, J., Sime, P. J., Sisson, T. H., Tschumperlin, D., Violette, S. M., Weaver, T. E., Wells, R. G., White, E. S., Kaminski, N., Martinez, F. J., Wynn, T. A., Thannickal, V. J., Eu, J.

P. (2014) Future directions in idiopathic pulmonary fibrosis research: an NHLBI workshop report. *Am. J. Respir. Crit. Care Med.* **189,** 214-222.

Patents

Kellems, R. E., Datta, S. K., and Blackburn, M. R. (2001) Adenosine deaminase deficient mice and methods for the use thereof. US 6,207,876 B1

Zeng, D. and Blackburn, M. R. (2007) Method of preventing airway remodeling and pulmonary inflammation using A2B adenosine receptor antagonists. US 60/619,439

Blackburn, M. R. Kellems, R.E. and Greenberg, L. (2007) Use of adenosine deaminase for treating pulmonary disease. No. 60/882,748

INVITED SEMINARS AND MEETING SYMPOSUM PRESENTATIONS

1999 Adenosine deaminase deficient mice develop severe lung eosinophilia and damage in association with elevated adenosine levels. Platform presentation at Keystone Symposium on Asthma. Incline Village, NV

Adenosine-dependent lung eosinophilia in adenosine deaminase deficient mice. Tanox Inc. Houston TX.

Adenosine-dependent lung inflammation in adenosine deaminase deficient mice. Department of Pathology Seminar Program. UTHSC-Houston TX.

Adenine nucleoside regulation and signaling at the murine maternal-fetal interface. Texas Forum on Female Reproduction. Texas Medical Center, Houston TX.

Adenosine deaminase deficient mice develop a combined immunodeficiency and severe lung inflammation. Invited speaker for Biochemistry and Molecular Biology seminar series. Mayo Clinic, Scottsdale AR.

Generation of adenosine deaminase deficient mice: models for adenosine-dependent lung inflammation and damage. Novartis Pharmaceuticals, Horsham, UK.

The use of genetically modified mice to probe the function of nucleoside signaling during lung disease. Department of Molecular Genetics Seminar Series, M. D. Anderson Cancer Center, Houston, TX.

Adenosine deaminase-deficient mice as models of adenosine mediated lung inflammation. Origins of Asthma in Early Life NIH RFA Meeting, Bethesda, MD.

2000 The Role of Adenosine in Asthma. Medicine and Critical Care Seminar, Baylor College of Medicine, Houston, TX.

Adenosine deaminase-deficient mice as models of adenosine mediated lung inflammation. Leukocyte Biology Seminar Series, Baylor College of Medicine, Houston, TX.

Adenosine deaminase-deficient mice as models of adenosine mediated lung inflammation. Invited speaker, CV Therapeutics, Palo Alto, CA.

Adenosine deaminase deficient mice: models for the study of lymphocyte development and adenosine signaling. Invited Speaker, International Symposium of Nucleosides and Nucleotides, Madrid, Spain.

Adenosine mediated lung inflammation and damage: lessons from adenosine deaminase-deficient mice. Integrative Biology and Pharmacology Seminar Series, UT-Houston Medical School. Houston, TX.

Adenosine mediated lung inflammation and damage: lessons from adenosine deaminase-deficient mice. Experimental Radiation Oncology Seminar Series, MD Anderson Cancer Center, Houston, TX.

Adenosine mediated lung inflammation and damage: lessons from adenosine deaminase-deficient mice. Department of Cell Biology Seminar Series, Baylor College of Medicine, Houston, TX.

2001 Adenosine-dependent lung inflammation and damage. Genetics Department Seminar Program. Case Western Reserve University. Cleveland, OH.

The Role of the Adenosine A3 receptor in Experimental Asthma. Sandler Program for Asthma Research Symposium. San Francisco, CA.

Genetic approaches for the examination of adenosine signaling in inflammatory lung diseases. Department of Pharmacology Seminar Series. East Carolina University School of Medicine, Greenville NC.

Genetic approaches for studying the role of adenosine in lung inflammation and damage. Department of Pulmonary Medicine Seminar Series. University of North Carolina at Chapel Hill, School of Medicine, Chapel Hill, NC.

2002 Mutant mouse models of pulmonary disease. Symposium Speaker NIH-OLAW conference on comparative pathology in functional genomics. Baylor College of Medicine, Houston TX.

The Role of the Adenosine A3 receptor in Experimental Asthma. Sandler Program for Asthma Research Symposium. San Francisco, CA.

Pulmonary consequences of adenosine overload: lessons from adenosine deaminase-deficient mice. 7th International Symposium on Adenosine and Adenine Nucleotides. Gold Coast, Australia.

Adenosine signaling and lung inflammation. NIH workshop on Asthma in Early Life. Bethesda, MD.

2003 Pulmonary consequences of adenosine overload. Department of Critical Care Medicine Seminar Pulmonary Seminar Series. Baylor College of Medicine, Houston, TX.

Adenosine signaling and in lung inflammation and damage: lessons from genetically modified mice. Department of Molecular Physiology and Biophysics Seminar Series. Baylor College of Medicine. Houston, TX.

Pulmonary consequences of adenosine overload. Department of Critical Care Medicine Seminar Pulmonary Seminar Series. Yale School of Medicine, New Haven, CT.

Examining patterns of adenosine-dependent gene expression in models of adenosine mediated lung disease. Faculty Research Retreat Speaker. The University of Texas Health Science Center at Houston. Woodlands Conference Center, Woodlands, TX.

Pulmonary consequences of adenosine overload. Cardiovascular Research Center Invited Seminar Speaker. University of Virginia, Charlottesville, VA.

Consequences of adenosine overload in chronic lung disease. Department of Molecular Genetics invited seminar speaker. M.D. Anderson Cancer Center, Houston, TX.

The Role of the Adenosine A3 receptor in Experimental Asthma. Sandler Program for Asthma Research Symposium. San Francisco, CA.

Pulmonary consequences of adenosine overload: lessons from adenosine deaminase deficient mice. Symposium Speaker, Purines and Pyrimidines in Man Meeting, Amsterdam, Netherlands

Molecular Models of Adenosine Signaling and Chronic Lung Disease. Toxicology Seminar Series, M.D. Anderson Cancer Center, Houston, TX

2004 Molecular Models of Adenosine Signaling and Chronic Lung Disease. Biology and Chemistry Departmental Seminar, Southwestern University, Georgetown, TX.

Molecular Models of Adenosine Signaling and Chronic Lung Disease. Symposia Speaker, Purines 2004 International Meeting, Chapel Hill, NC.

The ying and yang of adenosine signaling and pulmonary inflammation and damage. Division of Medical Pharmacology Seminar Series, New York University Medical School, New York, NY.

Pulmonary consequences of adenosine overload. Department of Pediatrics seminar series, Baylor College of Medicine, Houston, TX.

Pulmonary consequences of adenosine overload. Department of Pharmacology seminar series, The University of Houston, Houston, TX.

Adenosine signaling and chronic lung disease. Human and Molecular Genetics Program Seminar, University of Texas Health Science Center at Houston School of Public Health, Houston, TX.

2005 A2B adenosine receptor signaling in chronic lung disease. CV Therapeutics Inc., Palo Alto, CA.

Contribution of A2B adenosine receptor signaling to development of adenosine-dependent lung disease. CV therapeutics Asthma Advisory Board Meeting, New York, NY

Adenosine Deaminase Enzyme Therapy and Asthma Exacerbations. Annual SPAR Meeting speaker. San Francisco, CA

Adenosine signaling in lung inflammation and damage: lessons from genetically modified mice. Biology Seminar Series, King College, Bristol, TN

Adenosine signaling in lung inflammation and damage: lessons from genetically modified mice. Summer Research Program Seminar Series, UT Medical School, Houston, TX

Regulation of endogenous adenosine: insights into adenosine signaling in pulmonary inflammation and remodeling. Symposium on Timeless Pharmacology, Novartis Institute for Biomedical Research, Horsham, UK

Adenosine signaling in lung inflammation and damage: lessons from genetically modified mice. Postdoctoral Association Seminar Series, Baylor College of Medicine, TX

Adenosine signaling in lung inflammation and damage: lessons from genetically modified mice. Division of Cardiology lab seminar, UT Medical School, Houston, TX

2006 Molecular models of adenosine signaling and lung disease. Department of Biology Seminar Series. Texas A&M International, Laredo, TX

Adenosine signaling and the amplification of fibroproliferative lung disease. Integrative Biology Seminar Program, The University of Texas-Houston Medical School, Houston, TX

Adenosine receptors and the regulation of chronic lung disease. Invited symposium speaker at the 8th International Symposium on Adenosine and Adenine Nucleotides. Ferrara, Italy

The role of adenosine in chronic lung disease. UT Medical School Summer Research Program Seminar Series. Houston, TX

The use of ADA enzyme therapy in the treatment of adenosine-dependent lung disease. Consulting seminar, ENZON Pharmaceuticals Inc. Piscataway, NJ

Contribution of A2B adenosine receptor signaling to development of adenosine-dependent lung disease. CV therapeutics Asthma Advisory Board Meeting, New York, NY

Adenosine signaling and the regulation of fibroproliferative lung disease. Pharmacology Seminar Series, Medical College of Wisconsin, Milwaukee, WI

Adenosine signaling and the regulation of chronic lung disease. National Toxin Research Center Seminar Series. Kingsville A&M, Kingsville, TX

2007Adenosine signaling in pulmonary angiogenesis and fibrosis. Adult Pulmonary Seminar Series. MD Anderson Cancer Center. Houston, TX

Contribution of A2B adenosine receptor signaling to adenosine mediated pulmonary fibrosis and angiogenesis. Cardiovascular Research Center Seminar Series. University of Virginia, Charlottesville, VA

Molecular Models of Adenosine Signaling and Chronic Lung Disease. Institute for Systems Biology Seminar Speaker. Institute for Systems Biology Seattle WA

Molecular Models of Adenosine Signaling and Chronic Lung Disease. Quest Speaker in Biological Sciences, Pacific Northwest National Laboratory, Richland, WA

Contribution of A2B adenosine receptor signaling to adenosine mediated pulmonary fibrosis and angiogenesis. CV therapeutics Seminar Series, CV Therapeutics Inc., Palo Alto, CA

Genetic Models Examining the function of adenosine signaling in chronic lung disease. Grand Rounds in Clinical Pharmacology, Vanderbilt School of Medicine, Nashville, TN

The use of ADA enzyme therapy in the treatment of adenosine-dependent lung disease. Consulting seminar, ENZON Pharmaceuticals Inc. Piscataway, NJ

Adenosine signaling and the regulation of pulmonary inflammation; contribution of the A3 adenosine receptor and eosinophils. Invited Speaker. International Eosinophil Society meeting, Snowbird, UT

Molecular Models of Adenosine Signaling and Chronic Lung Disease. Invited seminar speaker. Physiology Department, Baylor College of medicine. Houston, TX

Adenosine signaling and the regulation of pulmonary fibrosis and angiogenesis. Human genetics center seminar. The University of Texas Health Science Center at Houston School of Public Health. Houston, TX

Systems analysis of adenosine-mediated lung disease in mice. Battelle Memorial Institute, Seattle WA

2008 Adenosine signaling and the regulation of fibroproliferative lung disease. Pathology and Laboratory Medicine monthly seminar series, Baylor College of Medicine, Houston, TX

Molecular Models of Adenosine Signaling and Chronic Lung Disease. Invited seminar speaker. Molecular Pathology Department. University of Texas-Houston Medical School, Houston, TX

Molecular Models of Adenosine Signaling and Chronic Lung Disease. Invited seminar speaker. Department of Pediatric Pulmonary, Baylor College of Medicine, Houston, TX

A model for adenosine-dependent pulmonary inflammation and damage. Lung Bio-initiative Meeting. Battelle Memorial Institute, Seattle WA

A2B adenosine receptor signaling in aspects of pulmonary inflammation and injury. Consulting seminar. CV Therapeutics, Palo Alto, CA

Adenosine signaling in lung inflammation, asthma and COPD. Invited Speaker. Purines 2008, Copenhagen, Denmark

Adenosine signaling and the regulation of chronic lung disease. GSBS Summer Research Program Seminar Speaker. Houston, TX

Adenosine signaling and the regulation of chronic lung diseases. Carleton College Seminar Series, Northfield, MN.

Adenosine Signaling and the Regulation of Chronic Lung Diseases. Oklahoma State University Veterinary College, Distinguished Professor Seminar Series, Stillwater, OK

2009 A systems biology approach to the analysis of adenosine-dependent lung disease. Battelle Memorial Institute, Seattle WA.

Adenosine and Chronic Lung Disease. University of Texas Health Science Center Research Day Symposium Speaker. Houston, TX

2010 Adenosine Signaling and the Regulation of Chronic Lung Diseases. Department of Pulmonary and Critical Care, University of Texas Health Science Center at Tyler, Tyler TX.

Adenosine Signaling and the Regulation of Fibroproliferative Lung Disease. Department of Medicine, Division of Rheumatology Grand Rounds, University of Texas-Houston Medical School. Houston TX.

Adenosine signaling and the regulation of chronic lung disease. Symposium speaker, Purines 2010 International Meeting in Tarragona, Spain.

Adenosine signaling and the regulation of pulmonary hypertension. Gilead Scientific Inc. Palo Alto, CA

Therapeutic approaches for adenosine deaminase deficiency, Clinic for Special Children, Strasburg, PA

Adenosine signaling and the regulation of chronic lung disease. University of Pennsylvania seminar series in lung health. Philadelphia, PA

2011 The role of the A_{2B} adenosine receptor in fibroproliferative lung disease. Department of Pediatrics Seminar Series, Baylor College of Medicine. Houston, TX

Models of adenosine mediated lung injury. Med Immune, Gaithersburg, MD

Adenosine and P2 Receptor Signaling in Pulmonary Fibrosis. Symposium Speaker, European Respiratory Society Meeting, Amsterdam, Netherlands

A_{2B} Adenosine Receptor Signaling in the Regulation of Pulmonary Fibrosis and Pulmonary Hypertension. Invited Seminar. Division of Allergy, Asthma and Critical Care Medicine, Vanderbilt School of Medicine, Nashville TN

2012 The role of the A_{2B} adenosine receptor in the regulation of chronic lung disease. Invited Seminar. Pediatrics Research Division Seminar Series. UT Houston Medical School. Houston, TX

The role of the A_{2B} adenosine receptor in chronic lung disease. Invited Seminar and session organizer. Collaborative Research Alliances for the Cure of Lung Diseases, Houston, TX

Contribution of adenosine A_{2B} receptor signaling in idiopathic pulmonary fibrosis and pulmonary hypertension. Invited Seminar. Methodist J.C. Walter Jr. Transplant Grand Rounds, Methodist Hospital, Houston

Adenosine Signaling and Lung Disease: Translating Findings From Mice into Novel Therapies. Topics in Translational Research Seminar Series. UT Medical School. Houston

The role of adenosine signaling in the regulation of chronic lung disease. Invited Speaker. Biosciences Seminar Series, University of South Florida Health Science Center. Tampa, Florida

The role of inflammation in idiopathic pulmonary fibrosis. Invited Speaker, NIH, NHLBI workshop, Bethesda, Maryland

2013 The role of the A2B adenosine receptor in lung injury and remodeling. Invited Speaker, Department of Anesthesiology, University of Colorado Anschutz Medical Campus. Denver, Colorado

Adenosine signaling and the progression of chronic lung disease. Invited Speaker, Texas Heart Institute at St. Luke's Hospital. Houston, Texas

You Had Me at Hello – How to write a specific aims page. Invited Speaker, Texas Regional Consortium of CTSA recipients. San Antonio, TX

Role of adenosine signaling and inflammation in the progression of chronic lung disease. Invited Speaker. Inflammation workshop, UTHealth.

2014 Adenosine in Chronic Lung Disease: Too Much of a Good Thing. Invited speaker at the Biochemistry and Molecular Biology Graduate Program Retreat at the University of Texas Graduate School of Biomedical Sciences, New Brounfels, TX

Adenosine signaling and the regulation of pulmonary fibrosis. Invited Speaker. Pulmonary and Critical Care Medicine Grand Rounds. UTHealth Medical School, Houston, TX

Adenosine signaling and lung fibrosis: Role of the ADORA2B on pulmonary macrophages. Symposium Speaker. Purines 2014 Meeting, Bonn, Germany

The Role of Adenosine Signaling in Pulmonary Fibrosis: Too Much of a Good Thing. Molecular Pathology Graduate Program Retreat Keynote Speaker. Brown University, Providence, RI

A2B Adenosine Receptor Signaling in Pulmonary Fibrosis: The Role of Alternatively Activated Macrophages. Joint COBRE/Pulmonary Division Seminar Series, Visiting Professor, Brown University, Providence, RI

2015 Novel Approaches for the Treatment of Pulmonary Fibrosis: Translating Findings from Mouse to Man, Keynote Speaker for Cullen Symposium, UTHealth/MD Anderson/Baylor College of Medicine

A2B Adenosine Receptor Signaling in Pulmonary Fibrosis: The Role of Alternatively Activated Macrophages. Division of Genetics seminar speaker. UTHealth School of Public Health, Houston TX

The Role of Macrophages in Idiopathic Pulmonary Fibrosis. Invited Symposium Speaker, Pulmonary Fibrosis Foundation Annual Meeting. Washington DC.

2016 Adenosine Signaling and Lung Fibrosis. Pediatric Research Center Seminar Series, UTHealth Medical School, Houston TX