

CURRICULUM VITAE

EMILY LOUISE DOBYNS

Personal History:

Present Position: Associate Professor, Pediatrics
Medical Director of the Pediatric Intensive Care Unit
University of Colorado

Education:

1970-1974 B.A. Biology
Thiel College
Greenville, Pennsylvania

1976-1978 B. S. Physician's Assistant
Graduated Magna Cum Laude
Mercy College of Detroit
Detroit, Michigan

1981-1985 M.D.
Michigan State University
East Lansing, Michigan

Postgraduate Education:

1985-1988 Pediatric Residency Program
Butterworth Hospital/Michigan State University
Grand Rapids, Michigan

1988-1991 Pediatric Critical Care Fellowship
University of Colorado/The Children's Hospital
Denver, Colorado

Medical Licensure:

1988 Colorado
License Number 28674

Board Certification:

1986 National Boards of Medical Examiners

1989 American Board of Pediatrics

2000 American Board of Pediatrics
Subspecialty Boards, Critical Care Medicine

Professional Experience:

1974-1976	Research Assistant, Biochemistry Brookhaven National Laboratory Brookhaven, New York
1979-1981 (PT 1981-1983)	Physician's Assistant Department of Family Practice MSU Clinical Center East Lansing, Michigan
1991-2000	Assistant Professor, Pediatrics University of Colorado Denver, Colorado
2000-Present	Associate Professor, Pediatrics University of Colorado Denver, Colorado
2004-Present	Medical Director, PICU The Children's Hospital / University of Colorado Denver, Colorado

Awards and Honors:

May 1987	Resident Teaching Award Michigan State University, College of Human Medicine Grand Rapids Campus
2003	Fellow, Society of Critical Care Medicine
2007	5280 Magazine's "Top Doc" in pediatric critical care medicine

Professional Societies:

1994-2000	American Thoracic Society
1994-1995	Pediatric Multidisciplinary Critical Care Knowledge Assessment Program Society of Critical Care Medicine
1995-2001	Pediatric Resident Education Committee Society of Critical Care Medicine
1992-Present	Society of Critical Care Medicine
2000-Present	Pediatric Acute Lung Injury and Sepsis Investigators

Institutional Committees:

1993-2007	Co-director, Pediatric Critical Care Fellowship
1996-2001	Housestaff Program Committee
1997-2004	Flight for Life Medical Advisory Committee
2000-2004	Medical Board
1995-1997	St. Anthony Central Trauma Service Committee
1996-1997	Pediatric Resident Advisor
1996-1997	Neonatal Strike Force
1998	Medical Staff Nominating Committee
1993-1999	Nutrition Quality Improvement Committee Chairperson 1996-1999
1995-2000	Junior Medical Student Pediatric Mentor Program
1997-2001	Trauma Steering, QI, and Research Committee
1994-Present	Housestaff Selection Committee
1995-Present	Clinical Research Center Scientific Advisory Committee
1996-Present	Physicians' Review Team Chairperson, 2002
2002- Present	Colorado Multiple Institutional Review Board
2004-Present	Trauma Program Performance and QI
2004-Present	Cor and Sedation Committee
2007-Present	CHCA collaborative to decrease inpatient codes-TCH core team
2008	Code Committee
2008	Physician Satisfaction SET
2008	NACHRI initiative to decrease catheter associated bloodstream infections-TCH PICU core team

Manuscript Reviewer:

Critical Care Medicine
Intensive Care Medicine

Pediatric Critical Care Medicine
 American Journal of Respiratory Critical Care Medicine
 Journal of Pediatrics

Research Grants:

1992 Presidential Funds to Support the Recruitment and Retention of Minority and Women Faculty, Colorado University
 One year, \$2500.

The effects of eicosanoids on neonatal lung cell proliferation and extracellular matrix protein production.

2000 National Institutes of Health Mentored Patient-Oriented Research Award ((1 K23 RR16178-01) "Interactive Effects of High Frequency Oscillatory Ventilation and Inhaled Nitric Oxide in the Treatment of Acute Hypoxemic Respiratory Failure in Pediatrics", \$640,190, 2000-2005.

Major Scientific Interests:

Mechanisms of acute lung injury and treatments

Patient safety and quality improvement in the pediatric intensive care unit

Invited Lectures/Presentations

December 1994 *First Annual National Congress on Pediatric Intensive Care, Monterey, Mexico*
Use of Inhaled Nitric Oxide in the Treatment of Persistent Pulmonary Hypertension of the Newborn

September 1996 European Society for Pediatric Intensive Care
 Lyon, France
Nitric Oxide: Physiology and Treatment of Acute Lung Injury

October 1996 First Annual Symposium: ECMO & Advanced Therapies for Respiratory & Cardiac Failure
 Iselin, New Jersey
Inhaled Nitric Oxide: Clinical and Research Application

November 1997 Annual Pediatric Resident Conference
 Villahermosa, Mexico
New Ventilatory Strategies for the Treatment of Pediatric Respiratory Failure and Use of Inhaled Nitric Oxide in Neonates and Pediatrics

September 1998 European Society for Pediatric Intensive Care
 Stockholm, Sweden
Pathophysiology of Lung Injury; Role of Endothelin and Nitric Oxide

- May 1999 Colorado Society of Respiratory Therapists Annual Conference
Estes Park, Colorado
Volume ventilation in infants and small children
- February 2000 Society of Critical Care Medicine Scientific and Educational
Symposium
Orlando, Florida
*Controversies in the management of pediatric acute lung injury:
Pro: Nitric oxide should be used in pediatric acute lung injury*
- January 2003 Society of Critical Care Medicine, 32nd Critical Care Congress
San Antonio, Texas
Utility of Nitric Oxide in Pediatric Patients
- February 2003 Grand Rounds, The Children's Hospital
Denver, Colorado
The role of nitric oxide in pediatric respiratory failure
- May 2003 Pulmonary Conference, The Children's Hospital / National Jewish
Hospital
Denver, Colorado
Mechanical ventilation
- February 2008 CHCA Collaborative Meeting
Kansas City, Missouri
The Children's Hospital's Experience-Outstanding Team Report

Papers Presented:

Leukotriene C4 and Platelet Activating Factor stimulate neonatal pulmonary artery smooth muscle cell and fibroblast proliferation. The Society for Pediatric Research Annual Meeting. Anaheim, California (May 1990).

Leukotriene C4 and Platelet Activating Factor stimulate DNA synthesis and elastin production in neonatal bovine pulmonary artery smooth muscle cells and fibroblasts. Aspen Conference on Perinatal Research. Aspen, Colorado (July 1990).

Multicenter Randomized Trial of the Effects of Inhaled Nitric Oxide Therapy on Gas Exchange in Children with Acute Hypoxemic Respiratory Failure. The Society for Pediatric Research Annual Meeting. New Orleans, Louisiana (May 1998).

Publications:

Manuscripts:

Carlson NC, Kuskie MR, *Dobyns EL*, Wheeler MC, Abzug MJ.
Legionellosis in children: An expanding spectrum. *Ped Infect Dis J* 1990;9:133.

Dobyns EL, Westcott JY, Kennaugh JM, Ross MN, Stenmark KR. Eicosanoids decrease with successful extracorporeal membrane oxygenation therapy in neonatal pulmonary hypertension. *Am J Respir Crit Care Med* 1994;149:873.

Dempsey EC, Badesch DB, *Dobyns EL*, Stenmark KR. Enhanced growth capacity of neonatal pulmonary artery smooth muscle cells in vitro: Dependence on cell size, time from birth, Insulin-like Growth Factor 1, and auto-activation of Protein Kinase C. *J Cell Physiol* 1994;160:469.

Dobyns EL, Cornfield DN, Anas NG, Fortenberry J, Tasker RC, Lynch A, Liu P, Eells PL, Griebel J, Baier M, Kinsella JP, Abman SH. Multicenter randomized controlled trial of the effects of inhaled nitric oxide therapy on gas exchange in children with acute hypoxemic respiratory failure. *J Pediatr.* 1999,134:406.

Dobyns EL, Griebel J, Kinsella JP, Abman SH, Accurso FJ. Infant lung function after inhaled nitric oxide therapy for persistent pulmonary hypertension of the newborn. *Peds Pulmonol.* 1999;28:24.

Dobyns EL, Eells PL, Griebel J, Abman SH. Elevated plasma endothelin-1 and cytokine levels in children with severe acute respiratory distress syndrome. *J Pediatr.* 1999;125:246.

Abman SH, *Dobyns EL, Kinsella JP.* Role of inhaled nitric oxide in the treatment of children with severe acute hypoxemic respiratory failure. *New Horizons.* 1999;7:386.

Dobyns EL, Anas NG, Fortenberry JD, Deshpande J, Cornfield DN, Tasker RC, Liu P, Eells PL, Griebel J, Kinsella JP, Abman SH. Interactive effects of High frequency oscillatory ventilation and inhaled nitric oxide in acute hypoxemic respiratory failure in pediatrics. *Crit Care Med* 2002;30:2425.

Liu E, MacKenzie T, *Dobyns EL, Parikh CR, Karrer FM, Narkewicz MR, Sokol RJ.* Characterization of acute liver failure and development of a continuous risk of death staging system in children. *J Hepatology* 2006;44:134.

Bateman ST, Lacroix J, Boven K, Forbes P, Barton R, Thomas NJ, Jacobs B, Markovitz B, Goldstein B, Hanson JH, Li HA, Randolph AG: *Pediatric Acute Lung Injury and Sepsis Investigators Network.* Anemia, blood loss, and blood transfusions in North American children in the intensive care unit. *Am J Respir Crit Care Med* 2008;178:26.

Reiter PD, Pietras M, *Dobyns EL,* Prolonged dexmedetomidine infusions in critically ill infants and children. Submitted.

Lu BR, Gralla J, Liu E, Dobyns E, Narkewicz M, and Sokol RJ, "Evaluation of a Scoring System for Assessing Prognosis in Pediatric Acute Liver Failure," *Clinical Gastroenterology and Hepatology* 2008;6:1140-1145.

Lu BR, Gralla J, Liu E, Dobyns E, Narkewicz M, and Sokol R, "Evaluation of a Scoring System for Assessing Prognosis in Pediatric Acute Liver Failure," Oral Presentation,

Acute Liver Failure Parallel Session, American Association for the Study of Liver Diseases, November 2007, Boston, MA, Hepatology 2007;46,4, Suppl. 1:276A-277A.

Abstracts:

Dobyns EL, Hofmeister SH, Westcott JY, Kennaugh JM, Stenmark KR. Leukotriene C4 and elastin production in neonatal bovine pulmonary smooth muscle cells and fibroblasts. Aspen Conference on Perinatal Research 1990.

Dobyns EL, Hofmeister SH, Westcott JY, Stenmark KR. Leukotriene C4 and Platelet Activating Factor stimulates neonatal pulmonary artery smooth muscle cell and fibroblast proliferation. Ped Res 1990;27:353A;2101.

Ferguson MA, Durmowicz AG, Dobyns EL, Hofmeister SH, Stenmark KR. Effect of dexamethasone on matrix protein production and cell proliferation in bovine and human lung cells. Peds Res 1991;29(4):370A;2202.

Dobyns EL, Hofmeister SH, Westcott JY, Kennaugh JM, Stenmark KR. Elevation of 15 HETE in severe hypoxemic respiratory failure and subsequent decrease following ECMO. ARRD 1991;143:A646.

Dobyns EL, Stenmark KR. Leukotriene C4 and Platelet Activating Factor stimulate elastin and collagen mRNA production by neonatal lung fibroblasts. ARRD 1992;145:A481.

Dobyns EL, Clay K, Stenmark KR. Palmitoyl acetyl phosphocholine stimulates DNA synthesis and expression of extracellular matrix protein genes in neonatal bovine pulmonary artery smooth muscle cells. ARRD 1993;147:A492.

Dempsey EC, Badesch DB, Dobyns EL, Stenmark KR. Enhanced growth capacity of neonatal pulmonary artery smooth muscle cells in vitro. Am J Resp Crit Care Med 1994;149:A825.

Dobyns EL, Griebel J, Fashaw L, Moreland SG, Kinsella JP, Abman SH, Accurso FJ. Follow-up pulmonary function in infants after inhaled nitric oxide treatment of persistent pulmonary hypertension. Peds Res 1996;39:385A.

Dobyns EL, Anas NG, Cornfield DN, Fortenberry J, Tasker R, Deshpande J, Liu P, Eells PL, Griebel J, MacKenzie T, Kinsella JP, Abman SH. Multicenter Randomized Trial of the Effects of Inhaled Nitric Oxide Therapy on Gas Exchange in Children with Acute Hypoxemic Respiratory Failure. Peds Res 1998; 43:35A.

Dobyns EL, Eells PL, Griebel J, Abman SH. Elevated plasma endothelin-1 levels in children with severe acute respiratory distress syndrome. Peds Res 1999;45:38A.

Dobyns EL, Anas NG, Fortenberry JD, Tasker RC, Deshpande J, Liu P, Cornfield DN, Eells PL, Griebel J, Kinsella JP, Abman SH. Interactive effects of high frequency oscillatory ventilation and inhaled nitric oxide in acute respiratory failure in pediatrics. Crit Care Med 2000.

Lu BR, Gralla J, Liu E, Dobyms E, Narkewicz M, and Sokol R, "Development of an Admission Scoring System for Predicting Outcome in Pediatric Acute Liver Failure," Oral Presentation, *Gastroenterology & Hepatology Session*, E-PAS2008:5345.7, Pediatric Academic Societies Annual Meeting, May 2008, Honolulu, HI.

Book Chapters and Other Publications:

Whitfield JM, *Dobyms EL*, Webb SA. Neonatal Sepsis. In *Textbook of Pediatric Critical Care*. Holbrook PR (editor). WB Saunders, 1993.

Dobyms EL, Durmowicz AG, Packer JM, Stenmark KR. Critical Care. In: *Current Pediatric Diagnosis and Treatment*. Hathaway WE, Hay Jr WW, Groothuis JR, Paisley JW (editors). Lange, 1993.

Dobyms EL, Durmowicz AG, Henry DB, Loftness SL, Stenmark KR. Critical Care. In: *Current Pediatrics Diagnosis and Treatment*. Hay Jr WW, Groothuis JR, Levin MJ (editors). Lange, 1994.

Dobyms EL, Durmowicz AG, Henry DB, Loftness SL, Stenmark KR. Critical Care. In: *Current Pediatrics Pediatric Diagnosis and Treatment*. Hathaway WE, Hay Jr WW, Groothuis JR, Paisley JW (editors), Appleton & Lange, 1995.

Dobyms EL, Durmowicz AG, Henry DB, Loftness SL, Stenmark KR. Critical Care. In: *Current Pediatrics Pediatric Diagnosis and Treatment*. Hay Jr WW, Groothuis JR, Hayward AR, Levin MJ (editors). Appleton & Lange, 1997.

Kirchner K, *Dobyms EL*, Stenmark KR. Lung cell biology. In: *Pediatric Respiratory Medicine*. Taussig L (editor). Mosby, 1998.

Dobyms EL. Gas exchange and hemodynamics in experimental pleural effusion (editorial). *Crit Care Med*. 1999, 27:472.

Carpenter TC, *Dobyms EL*, Ferguson MA, Lane J, Mourani P, Robinson A, Stenmark KR. Critical Care. In: *Current Pediatric Diagnosis and Treatment*. Hay Jr WW, Sondheimer J, Hayward AR, Levin MJ (editors). McGraw Hill, 2003.

Dobyms EL. Assessment and Monitoring of Respiratory Function. In: *Pediatric Critical Care*. Fuhrman B, Zimmerman J (editors). Elsevier Health Science Company, 2006.

Carpenter TC, *Dobyms EL*, Durmowicz AG, Stenmark KR. Management of Acute Respiratory Failure. In: *Kendig's Disorders of the Respiratory Tract in Children*. Chernick, Boat, Wilmott, Bush (editors). Elsevier Health Science Company, 2006.

Grayck EN, Dobyms EL. Nitric Oxide. In: *Pediatric Critical Care Medicine*. Slonim, Pollack (editors). Lippincott Williams & Wilkins, 2007

Dobyms EL, Grayck EN. *Nitric Oxide*. In: *Pediatric Critical Care Medicine*. Wheeler, Wong, Shanley (editors). Springer, 2007

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