

## Curriculum Vitae

Hector H. Gutierrez, M.D.  
University of Alabama at Birmingham  
School of Medicine Faculty

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**DATE:** June 10, 2010

### PERSONAL INFORMATION

**Name:** Hector H. Gutierrez, M.D.  
**Citizenship:** United States  
**RANK/TITLE:** Professor  
**Primary Department:** Pediatrics  
**Division:** Pulmonary Medicine  
**Business Address:** 620 ACC  
1600 7th Avenue S.  
Birmingham Alabama 35233  
**Business Phone:** 205.934.3574

### HOSPITAL AND OTHER (NON-ACADEMIC) APPOINTMENTS:

<u>Institution</u>	<u>Rank/Title</u>	<u>Year</u>
Children's Hospital of Alabama	Active Staff	2003 - Present
Children's Rehabilitation Services	Active Staff	2003 - Present
Children's Hospital Oakland	Active Staff	1999 - 2003
California Pacific Medical Center	Active Staff	1999 - 2003
Children's Hospital of Alabama	Active Staff	1994 - 1999

### PROFESSIONAL CONSULTANTSHIPS:

<u>Institution</u>	<u>Rank/Title</u>	<u>Year</u>
UAB Hospital	Consulting Staff	2003 - Present
California Center for Sleep Disorders	Consulting Staff	2002 - 2003
UAB Hospital	Consulting Staff	1994 - 1999

### EDUCATION:

<u>Year</u>	<u>Degree</u>	<u>Institution</u>
December 1985	M.D.	Catholic University of Chile School of Medicine Santiago, Chile

**MILITARY SERVICE:** None

**LICENSURE:**

<u>State</u>	<u>Number</u>	<u>Year</u>
Alabama	16531	1991 - Present
California	C50306	1999 - 2005
Maryland	D42349	1989 - 1992
Federal DEA	BG3315303	1989 - Present

**BOARD CERTIFICATIONS:**

<u>Licensing Board</u>	<u>Number</u>	<u>Year</u>
American Board of Pediatrics Pediatrics	46745	1991, 1998.
American Board of Pediatrics Sub-Board Pediatric Pulmonology	00406	1994, 2001, 2008

**POSTDOCTORAL TRAINING:**

<u>Year</u>	<u>Degree</u>	<u>Institution</u>
1986 – 1989	Pediatric Residency	Catholic University of Chile Medical School Santiago, Chile
1989 – 1991	Pediatric Residency	University of Maryland Medical System Baltimore, Maryland
1991 – 1994	Pediatric Pulmonology Fellowship	University of Alabama at Birmingham Birmingham, Alabama

**OTHER CERTIFICATIONS:**

Basic Life Support  
Pediatric Advanced Life Support

**ACADEMIC APPOINTMENTS:**

<u>Year</u>	<u>Rank/Title</u>	<u>Institution</u>
Oct 2008 - Present	Professor	Pulmonary Division, Department of Pediatrics UAB School of Medicine, Birmingham, Alabama
May 2008 - Present	Scientist	Gregory Fleming James Cystic Fibrosis Research Center UAB School of Medicine, Birmingham, Alabama
Apr 2006 - Present	Associate Scientist	Center for Outcomes & Effectiveness Research & Education UAB School of Medicine, Birmingham, Alabama
Dec 2005 - Present	Associate Scientist	Minority Health and Research Center UAB School of Medicine, Birmingham, Alabama
Mar 2004 - Present	Director	UAB/CHS Cystic Fibrosis Center UAB School of Medicine, Birmingham, Alabama
Aug 2003 - Sep 2008	Associate Professor	Pulmonary Division, Department of Pediatrics UAB School of Medicine, Birmingham, Alabama
Oct 1999 - Aug 2003	Assistant Research Scientist	Children's Hospital Research Institute, Oakland, California
Nov 1995 - Sep 1999	Assistant Professor	Pulmonary Division, Department of Pediatrics UAB School of Medicine, Birmingham, Alabama
Jul 1994 - Oct 1995	Instructor	Pulmonary Division, Department of Pediatrics UAB School of Medicine, Birmingham, Alabama

**AWARDS/HONORS:**

- 1994 Parker B. Francis Pulmonary Research Fellow, Parker B. Francis Foundation
- 1994 Finalist, Visiting Scholar Award, Center for International Programs, University of Alabama at Birmingham, Birmingham, AL.
- 2002 Outstanding Research Presentation, 2002 Research Symposium, Children's Hospital Oakland Research Institute (CHORI), Oakland, CA
- 2007, 2008 Best Doctors<sup>®</sup> in America (peer-reviewed listing)
- 2009 Commendation for work improving care for patients at the UAB/CHS Cystic Fibrosis Center. American Board of Pediatrics
- 2009 UAB/CHS Cystic Fibrosis Center: Recipient of the 2009 Cystic Fibrosis Foundation's Quality Care Award: *Recognizing Outstanding QI Processes and Accomplishments*. Cystic Fibrosis Foundation.

**PROFESSIONAL SOCIETIES:**

- American Thoracic Society (Active member: a) Pediatric and b) Respiratory Cell-Molecular Biology [RCMB] Assemblies)
- Oxygen Society (1992 – 1999)

**MEMBERSHIPS:** None**COUNCILS AND COMMITTEES:**

	<u>Year</u>
• Member, Center Committee, Cystic Fibrosis Foundation (CFF)	2010 - Present
• Member, Quality Improvement Council, Children's Hospital	2009 - Present
• Director of Medical Quality, Children's Hospital	2009 - Present
• Member, Pulmonary Therapies Committee, CFF	2008 - Present
• Member, Newborn Screening Special Interest Group, CFF	2007 - Present
• Member, Advisory Board, Laps for CF Foundation, Birmingham AL	2007 - Present
• Member, Data Safety Monitoring Board, CFF	2006 - Present
• Member, Alabama Newborn Screening Advisory Committee State of Alabama Department of Public Health (ADPH)	2006 - Present
• Chair, Subcommittee on Cystic Fibrosis Alabama Newborn Screening Advisory Committee, ADPH	2006 - Present
• Member, Steering Committee, EPIC Clinical and Observational Trial, CFF	2004 - 2010
• Member, Board of Directors, CFF, Alabama Chapter	2004 - 2008

**UNIVERSITY ACTIVITIES:**

	<u>Year</u>
• Member, EHR Committee. Department of Pediatrics, UAB	2007 - Present
• Preceptor, Professional Enrichment Program (PEP) Department of Undergraduate Medical Education-UAB School of Medicine	2007
• Resident Advisor, UAB Pediatrics	2006 - Present
• Mentor, "Manos Juntas", Hispanic Mentoring Program for Undergraduate Students, UAB.	2005 - Present
• Preceptor, Introduction to Clinical Medicine 1 (ICM1)	2005
• Member, Antimicrobial Utilization Review Committee, Children's Hospital	2004 - 2008
• Director, UAB Cystic Fibrosis Center	2004 - Present
• Director, UAB Pediatric Pulmonology Fellowship Program	2003 - 2009
• Member, Graduate Medical Education Committee, Children's Hospital Oakland	2000 - 2003
• Residency Review Committee, UAB Pediatrics	2003 - Present

- Attending Physician, Pediatric Pulmonary Inpatient and Consult Service (eight weeks/year) 2003 - Present
- Attending Physician, Pediatric Pulmonary Care Clinic (two half-days/week) 2003 - Present
- Attending Physician Pediatric Pulmonary Inpatient Nurse Practitioner Service (two month/year) 2003 - Present
- Attending Physician, Pediatric Cystic Fibrosis Clinic, Children's Hospital (two half-days/week) 2003 - Present
- Attending Physician, Pediatric Sleep Disorder Center (three months/year) 2003 - Present
- Nurse Practitioner Collaborative Practice LaCrecia Britton, RN, CPNP 2003 - Present
- Nurse Practitioner Collaborative Practice Theresa Rodgers, RN, CPNP 2003 - Present

**EDITORIAL BOARD MEMBERSHIPS:****Ad hoc Reviewer**

- American Journal of Physiology-Lung Cell and Molecular Physiology 1994 - 1999
- American Journal of Respiratory Cell and Molecular Biology 1997 – 1999
- Chest 2008 -

**MAJOR RESEARCH INTERESTS**

*My research objectives are to implement and investigate quality improvement, outcome measurement and management of both clinical and non-clinical processes. I use cystic fibrosis care as a model to improve the quality and value of clinical care, which ultimately results in longer survival.*

**TEACHING EXPERIENCE:****Teaching Lectures:**

- Beta-2 Agonists. Pharmacology and Actions. Pediatric Pulmonary and Critical Care Division Conference Series. UAB Department of Pediatrics. The Children's Hospital Birmingham, AL. January 12, 1992.
- Tuberculosis. Noon Conference for Pediatric House staff, UAB Department of Pediatrics. The Children's Hospital Birmingham, AL. June 1, 1992.
- Cor Pulmonale. Pediatric Pulmonary and Critical Care Division Conference Series, UAB Department of Pediatrics. The Children's Hospital Birmingham, AL. September, 1992.
- Upper and Lower Respiratory Infections. Conference to Graduate Students at the Pediatric Pulmonary Center, UAB Department of Pediatrics. The Children's Hospital Birmingham, AL. March, 1992 and April 1993.
- Cardiopulmonary Anatomy. Conference to Graduate Students at the Pediatric Pulmonary Center, UAB Department of Pediatrics. The Children's Hospital Birmingham, AL. October 20, 1993.
- Complications of Pneumonias. Noon Conference for Pediatric House staff, UAB Department of Pediatrics. The Children's Hospital Birmingham, AL. January 5, 1994.
- Unusual Pulmonary Diseases. Conference to Graduate Students at the Pediatric Pulmonary Center, UAB Department of Pediatrics. The Children's Hospital Birmingham, AL. March 9, 1994.
- Cytokines. Tutorial class to Graduate Students. UAB Department of Anesthesiology, Research Division. March 18, 1994.
- Update in Pediatric Tuberculosis. Noon Conference for Pediatric House staff, UAB Department of Pediatrics. The Children's Hospital Birmingham, AL. June 8, 1994.

- Ventilatory Failure. Update 1994. Pediatric Pulmonary and Critical Care Division Conference Series, UAB Department of Pediatrics. The Children's Hospital Birmingham, AL. August 24, 1994.
- Complication of Bacterial Pneumonias. Noon Conference for Pediatric House staff, UAB Department of Pediatrics. The Children's Hospital Birmingham, AL. November 2, 1994.
- Chronic Respiratory Diseases. Conference to Graduate Students at the Pediatric Pulmonary Center, UAB Department of Pediatrics. The Children's Hospital Birmingham, AL. November 11, 1994.
- Controversies in Pediatric Asthma: Inhaled Steroids. Pediatric Pulmonary and Critical Care Division Conference Series, UAB Department of Pediatrics. The Children's Hospital Birmingham, AL. February 23, 1995.
- Role of nitric oxide in apoptosis in the lung. Journal Club Meeting. UAB Department of Anesthesiology, Research Division. October, 1995.
- Bronchoalveolar Lavage. Pediatric Pulmonary and Critical Care Division Conference Series, UAB Department of Pediatrics. The Children's Hospital Birmingham, AL. February 28, 1996.
- Bronchopulmonary Dysplasia. Noon Conference for Pediatric House staff, UAB Department of Pediatrics. The Children's Hospital Birmingham, AL. June 5, 1996.
- Bone Marrow Transplantation and the Lung. Pediatric Pulmonary Division, State of the Art Series. UAB Department of Pediatrics. The Children's Hospital Birmingham, AL. April 30, 1997.
- Bronchoscopy in Pediatrics. Noon Conference for Pediatric House staff, UAB Department of Pediatrics. The Children's Hospital Birmingham, AL. May 7, 1997.
- Medical Aspects of Asthma. Conference to Graduate Students at the Pediatric Pulmonary Center, UAB Department of Pediatrics. The Children's Hospital Birmingham, AL. October 10, 1997.
- Bronchoscopic Diagnosis of Bacterial Pneumonia: BAL vs. PSB. Pediatric Pulmonary Division, State of the Art Series. UAB Department of Pediatrics. The Children's Hospital Birmingham, AL. March 18, 1998.
- Nitric oxide and the alveolar epithelium. Child Health Investigative Forum. UAB Department of Pediatrics. March 6, 1998.
- Allergic Bronchopulmonary Aspergillosis in Cystic Fibrosis. Pediatric Pulmonary Division, State of the Art Series. UAB Department of Pediatrics. The Children's Hospital Birmingham, AL. November 24, 1998.
- Basics on Ventilators. Noon Conference for Pediatric House staff, UAB Department of Pediatrics. The Children's Hospital Birmingham, AL. February 3, 1999.
- Cystic Fibrosis. Noon Conference for Pediatric House staff, Children's Hospital Oakland, Oakland, CA. November 9, 1999.
- Basics on Ventilators. Noon Conference for Pediatric House staff, Children's Hospital Oakland, Oakland, CA. December 14, 1999.
- Interpretation of Pulmonary Function Tests. Noon Conference for Pediatric House staff, Children's Hospital Oakland, Oakland, CA. September 12, 2000.
- SIDS and ALTEs. Noon Conference for Pediatric House staff, Children's Hospital Oakland, Oakland, CA. April 10, 2001.
- Acute Life Threatening Events. Noon Conference for Pediatric House staff, Children's Hospital Oakland, Oakland, CA. September 8, 2001.
- Acute Lung Injury. Noon Conference for Pediatric House staff, Children's Hospital Oakland, Oakland, CA. April 19, 2002.
- Aspirative syndromes. Noon Conference for Pediatric House staff, Children's Hospital Oakland, Oakland, CA. October 1, 2002.
- Asthma, 2002 Guidelines. Kaiser Permanente Pediatric Conferences Series. Oakland, CA August 13, 2002.
- The Snoring Child. Noon Conference for Pediatric House staff, Children's Hospital Oakland, Oakland, CA. April 28, 2003.
- Cystic Fibrosis Care Center Update approach to QI. Pediatric Pulmonary Center (PPC), lecture to PPC trainees. February 21, 2007.
- Cystic Fibrosis. Ongoing Lecture to Third Year Medical Students. UAB School of Medicine. Birmingham, AL Monthly 2004 – Present.

**Resident Education:**

- Resident Advisor, Paul Scalici MD (Pediatrics), 2006 - 2009
- Resident Advisor, Diego Lara, MD (Pediatrics), 2008 - 2011

**Ph.D. Candidate mentorship and Committees:**

- Kimberly Guion, UAB, Doctoral Candidate in Medical/Clinical Psychology (PhD Dissertation Committee Member) August 2007- January 2009, The Influence of Parent Attributional Style, Coping, and Family Structure on Children's Adjustment to Chronic Illness.

**Medical Students and Pre-Medical Students:**

- Jessica Castillo, UAB Class of 2009. "Manos Juntas" A Hispanic Mentoring Program for Undergraduate Students. Minority Health & Research Center-UAB School of Medicine

**Graduate Students:**

- **McWhorter School of Pharmacy, Samford University, Birmingham, Alabama 2004 -**

- C. Malia Short – "Investigating hepatic and renal changes in cystic fibrosis patients on azithromycin. 2004 – 2005.
- Anna Kate Intraabona – "Safety of high dose ibuprofen in patients with cystic fibrosis". 2004- 2005.
- Stephanie Heartsill Carroll – "Use of synergy studies for pseudomonas infections in CF pulmonary exacerbations; 2006- 2007.
- Erin Randall – "CF-related diabetes: treatment and outcomes". 2007 -
- Lindsey Redmon – "Comparison of oral versus IV medicines to treat MRSA". 2008

**Quality Improvement Mentorship and Committees:**

- University of Miami Cystic Fibrosis Center. Andrew Colin, MD. Division Chief. Learning and Leadership Collaborative VI, Accelerating the Rate of Improvement in CF Care. A program sponsored by the Cystic Fibrosis Foundation. January 2008 – January 2009.

**MAJOR LECTURES AND VISITING PROFESSORSHIPS:**

- "Quality Improvement Approach Accelerates Implementation of Evidence Based Practices Within a Interdisciplinary Cystic Fibrosis Team". Symposium at the 18<sup>th</sup> International Research Nursing Congress. Vienna, Austria. July 13, 2007.
- Coach/Mentor for the "Learning and Leadership Collaborative VI, Accelerating the Rate of Improvement in CF Care". CF Quality Coaching program to build leadership and capacity for change within the CF care network. January 2008 – January 2009. Cystic Fibrosis Foundation, Bethesda, MD

**GRANT SUPPORT:****Active Grants:**

**04/01/10 – 03/31/11**

*"I C.A.R.E. - I Change Adherence and Raise Expectations"*  
University of Miami/Novartis Pharmaceuticals  
Principal Investigator  
\$30,765

**07/01/09 – 06/30/10**

"Cystic Fibrosis Center for Care, Teaching and Research"  
Cystic Fibrosis Foundation  
# C001  
Principal Investigator  
\$153,450

**06/01/09 – 05/31/11**

"A Phase 3, 2-Part, Randomized, Double-Blind, Placebo-Controlled, Parallel-Group Study to Evaluate the

- Pharmacokinetics, Efficacy and Safety of VX-770 in Subjects Aged 6 to 11 years with Cystic Fibrosis and the G551D Mutation  
Vertex Pharmaceuticals, Inc.  
# VX08-770-103  
Affiliate Site, Principal Investigator  
\$109,456
- 07/01/09 – 06/30/11** “Statistical Process Control (SPC)-validated home spirometry as a biomarker of CF lung disease”.  
UAB CF Research and Translation Core Center.  
National Institute of Diabetes and Digestive and Kidney Diseases  
# P30 DK72482  
Principal Investigator  
\$204,401
- 10/01/09 – 09/30/10** “Cystic Fibrosis Screening for Newborn Infants”  
Alabama Department of Public Health  
Principal Investigator  
\$68,379
- 01/01/10 – 12/31/10** “Early Recognition and Intervention for Acute Pulmonary Exacerbation in CF”  
Cystic Fibrosis Foundation  
# GUTIER09Q10  
Principal Investigator  
\$27,000
- 11/11/04 – 03/31/14** “The EPIC Observational Study: Longitudinal Assessment of Risk Factors For and Impact of *Pseudomonas aeruginosa* Acquisition and Early Anti-Pseudomonal Treatment in Children with CF”  
#EPIC 002  
Cystic Fibrosis Foundation  
Affiliate Site, Principal Investigator  
\$15,887

**PENDING:****None****PAST GRANT SUPPORT:**

- 11/11/04 – 03/31/10** “Efficacy and Safety of Intermittent Antimicrobial Therapy for the Treatment of the New Onset *Pseudomonas aeruginosa* Airway Infection in Young Patients with Cystic Fibrosis”  
EPIC 001; Cystic Fibrosis Foundation  
Affiliate Site, Principal Investigator  
\$40,357

- 09/01/08 – 08/31/09** “The use of formula fortified with docosahexaenoic acid (DHA) in infants with cystic fibrosis”  
Cystic Fibrosis Foundation  
Affiliate Site, Principal Investigator  
\$8,000
- 09/01/07 – 08/31/08** “A Multicenter, Randomized, Double-Blind, Placebo-Controlled Trial of Pulmozyme® Withdrawal on Exercise Tolerance in Cystic Fibrosis Subjects with Severe Lung Disease (TOPIC)”  
Genentech, Inc.  
Affiliate Site, Principal Investigator  
\$23,118
- 05/01/07 – 9/30/07** “Cystic Fibrosis Screening for Newborn Infants”  
Alabama Department of Public Health  
Principal Investigator  
\$23,285
- 04/01/05 – 12/31/05** “Epidemiologic Study of Cystic Fibrosis: A Multicenter, Longitudinal Follow-up Study of Patients with Cystic Fibrosis for Monitoring Pulmonary Function, Pulmonary Exacerbation and the Safety of Long Term Treatment with Pulmozyme”  
#Z0595N  
Genentech, Inc.  
Principal Investigator  
\$45,000
- 06/01/04 – 06/30/05** “Leadership Learning Collaborative II”  
Cystic Fibrosis Foundation  
Principal Investigator  
\$2,110
- 11/18/04 – 12/30/05** “A Phase 3, Randomized, Double-Blind, Placebo-Controlled, Parallel-Group Study to Assess the Efficacy and Safety of PROVIGIL® (Modafinil) Treatment (100, 200, and 400 mg/day) in Children and Adolescents With Excessive Sleepiness Associated With Narcolepsy”  
C1538/3027/NA/MN  
Cephalon, Inc.  
Co-Investigator  
\$551,540
- 11/18/04 – 12/30/05** “A Phase 3, Randomized, Double-Blind, Placebo-Controlled, Parallel-Group Study to Assess the Efficacy and Safety of PROVIGIL® (Modafinil) Treatment (100, 200, and 400 mg/day) in Children and Adolescents With Excessive Sleepiness Associated With Obstructive Sleep Apnea/Hypopnea Syndrome”  
C1538/3028/AP/MN  
Cephalon, Inc.  
Co-Investigator  
\$54,371
- 11/18/04 – 12/30/05** “A 1-Year Open-Label, Flexible-Dosage Extension Study to Assess the Safety and Continued Effectiveness of PROVIGIL (Modafinil) Treatment in Children and Adolescents with

- Excessive Sleepiness Associated with Narcolepsy or Obstructive Sleep Apnea/Hypopnea Syndrome"  
C1538/3029/ES/MN  
Cephalon, Inc.  
Co-Investigator  
\$208,320
- 4/1/99 – 3/31/04** "Nitric Oxide Modulation of Inflammatory Lung Injury"  
National Heart, Lung and Blood Institute # 1K01 HL04121  
Principal Investigator  
\$656,535
- 9/30/00 – 9/29/04** "Sickle RBC, Intermittent Hypoxia and vascular pathology"  
National Heart, Lung and Blood Institute  
#1 R01 HL-00-004  
Co-Investigator  
\$1,082,900
- 10/1/01 – 9/30/03** "Arginine Therapy for Acute Chest Syndrome in Sickle Cell Disease"  
Federal Drug Administration  
Co-Investigator  
\$210,000
- 5/1/99 – 4/30/01** "Environmental Health and Asthma"  
The San Francisco Foundation #C-1990-1299  
Co-Investigator. Program Coordinator  
\$ 100,000
- 2/1/94 - 1/31/99** "Lung Free Radical Metabolism and Injury"  
National Heart, Lung and Blood Institute # 1R01 HL51245  
Co-Investigator. 25% effort  
\$1,498,774
- 7/1/94 - 6/30/97** "Nitric Oxide-mediated Responses in Acute Lung Injury"  
Research Fellowship Grant  
Parker B. Francis Foundation  
Principal Investigator  
\$ 108,000
- 7/1/94 - 6/30/96** "Role of Endogenous Alveolar Epithelial Nitric Oxide in Pulmonary Vasculature"  
Grant-in-Aid.  
American Heart Association, Alabama Affiliate  
Principal Investigator  
\$ 60,000

**BIBLIOGRAPHY:****MANUSCRIPTS****Manuscripts Already Published**

1. Schnake, C., Gutierrez, H., Saez, M., Becker, M.; Pityriasis Versicolor in Infants. *Rev Chil Ped* 59: 50-52, 1988.
2. Delucchi, MA., Guiraldes, E., Hirsch, T., Lopez, N., Gutierrez, H., Schele, C., Torres-Pereyra, J. The Use of Oral Rehydration in the Treatment of Acute Diarrhea in Primary Care. *J of Ped Gastroenterol and Nutr* 9: 328-334, 1989.
3. McIntosh, JC, Gutierrez, HH. Mycoplasmal Infections. Epidemiology, Immunology, Diagnostic Techniques, and Therapeutic Strategies. *Immun and Allergy Clin of N Amer* 13: 43-57, 1993.
4. Gutierrez, HH, Pitt, BR, Brookens, M, Watkins, SC, Lowenstein, C, Cannigia, I, Chumley, P, Freeman, BA. Pulmonary Alveolar Epithelial Inducible Nitric Oxide Synthase Gene Expression: Regulation by Inflammatory Mediators. *Am J Physiol.* 268: L501 - L508, 1995.
5. Freeman, BA, Gutierrez, HH, Rubbo, H. Nitric oxide — A central regulatory species in pulmonary oxidant reactions, Editorial. *Am J Physiol (Lung Cell Mol Physiol), Am J Physiol.* 268: L697 - L698, 1995.
6. Freeman, BA, White, CR, Gutierrez, HH, Paler-Martínez, A, Tarpey, M, Rubbo, H. Oxygen radical-nitric oxide reactions in vascular diseases. *Adv Pharmacol.* 34, 34 - 45, 1995.
7. Gutierrez, HH, Nieves, B, Chumley, P, Rivera, A, Freeman, BA. Nitric oxide regulation of superoxide-dependent rat lung injury: oxidant-protective actions of endogenously produced and exogenously administered nitric oxide. *Free Rad Biol Med.* 21:43-52,1996.
8. Britton, LJ, Thrasher, S, Gutierrez, HH. Creating a Culture of Improvement: The Experience of a Pediatric Cystic Fibrosis Center. *J Nurs Care Qual.* 23:115-20, 2008
9. Houser, GH, Holt, CH, Clancy, JP, Leon, K, Rowe, SM, Gaggar, A, Gutierrez, HH, Young, KR, Robin, NH. Genetic and reproductive knowledge among adolescents and adult with CF. *Chest* 133:1533, 2008.
10. Treggiari MM, Rosenfeld M, Mayer-Hamblett N, Retsch-Bogart G, Gibson RL, Williams J, Emerson J, Kronmal RA, Ramsey BW; EPIC Study Group (Gutierrez, HH –member). Early anti-pseudomonal acquisition in young patients with cystic fibrosis: rationale and design of the EPIC clinical trial and observational study. *Contemp Clin Trials.* 2009, 30:256-68.
11. Gutierrez, HH, Sanchez, I, Schidlow, D. Cystic Fibrosis Care in Chile. *Curr Opin Pulm Med* 2009, 15: 632-637.
12. Flume, PA, Mogayzel, Jr. PJ, Marshall, BC, Robinson, KA, Goss, CH, Rosenblatt, RL, Kuhn. RJ, and the Clinical Practice Guidelines for Pulmonary Therapies Committee (Gutierrez, HH -member). Cystic Fibrosis Pulmonary Guidelines: Treatment of Pulmonary Exacerbations. *Am J Respir Crit Care Med.* 2009, 180: 802-808.
13. Gutierrez, HH. Fibrosis Quística en America Latina. **Invited Editorial.** *Neumonología Pediátrica* (Spanish). 2010, 5:1.
14. Gutierrez, HH. Prestación de Servicios de Salud en Fibrosis Quística: El Rol de un Centro de Cuidado Multidisciplinario. *Neumonología Pediátrica* (Spanish). 2010, 5:29-33.
15. Britton, L. Gutierrez, HH. Coordinación de un Centro de Fibrosis Quística. *Neumonología Pediátrica* (Spanish). 2010, 34-36.

**Manuscripts in Press:**

1. Rosenfeld M, Emerson J, McNamara S, Joubran K, Retsch-Bogart G, Graff GR, Gutierrez H, Kanga J, Lahiri T, Noyes B, Ramsey BW, Ren CL, Schechter M, Wagener J, Morgan W, Gibson R, for the EPIC Study Group. The Early Pseudomonas Infection Control (EPIC) Observational Study: Baseline characteristics and associations in a young cohort of children with cystic fibrosis. *Pediatr Pulmonol.* 2010.
2. Schechter, MS, Gutierrez, HH. Improving the Quality of Care for Patients with Cystic Fibrosis. *Curr Opin Peds,* 2010.

**Manuscripts Submitted But Not Yet Accepted:**

1. Flume, PA, Mogayzel, Jr. PJ, Robinson, KA, Rosenblatt, RL, Quittell, L, Marshall, BC, and the Clinical Practice Guidelines for Pulmonary Therapies Committee (Gutierrez, HH -member). Cystic Fibrosis Pulmonary Guidelines: *Hemoptysis*. *Am J Respir Crit Care Med*. 2010.
2. Flume, PA, Mogayzel, Jr. PJ, Robinson, KA, Rosenblatt, RL, Quittell, L, Marshall, BC, and the Clinical Practice Guidelines for Pulmonary Therapies Committee (Gutierrez, HH -member). Cystic Fibrosis Pulmonary Guidelines: *Pneumothorax*. *Am J Respir Crit Care Med*. 2010.

**Manuscripts in Preparation:**

1. Carroll, SH, Britton, LJ, Tofil, N, Gutierrez, HH. Antibiotic Synergy Studies are not Beneficial Aids in the Treatment of Acute Pulmonary Exacerbations in Cystic Fibrosis Patients. 2010. *Pediatric Pulmonology*.
2. Anderson, C, Britton, LJ, Gutierrez, HH. Influence of Burkholderia Cepacia Colonization on Clinical Outcomes in Patients with Cystic Fibrosis. 2010. *Pediatric Pulmonology*.
3. Self, ST, Britton, LJ, Gutierrez, HH. Evaluation of Two Different Education Tracks for Parents of Babies Diagnosed with Cystic Fibrosis Through Newborn Screening. 2010. *J Cyst Fibrosis*.

**Other Publications (letters to the author, book reviews, etc.)** None

**BOOKS****Books and Book Chapters**

1. Gutierrez, HH. Congenital Malformations of the Airway and Lung, in Meneghello, JR: *Pediatric Practica en Dialogos* (Spanish), Santiago, Chile, 1999.
2. Gutierrez, HH. Cystic Fibrosis, in Meneghello, JR: *Pediatric Practica en Dialogos* (Spanish), Santiago, Chile, 1999.
3. Gutierrez, HH. Sarcoidosis, in Burg, Ingelfinger, Polin, Gershon: *Current Pediatric Therapy*, 18<sup>th</sup> Ed. Elsevier, Philadelphia, PA. 2006.
4. Lenker, C, Slayton, D, Gutierrez, HH. "Discharge Planning for the Child with Chronic Lung Disease" (Spanish), on "Clinical Approach to Respiratory Disorders of the Child" (Spanish). Sanchez Diaz, I and Prado Atlagic F, Eds. Universidad Catolica de Chile, Santiago, CHILE, 2007.
5. Gutierrez, HH. Bronchiectasis and Atelectasis, in Meneghello, JR: *Pediatric*, 6<sup>th</sup> Edition. Santiago, CHILE (submitted). 2009.

**Published Abstracts/Poster Exhibits**

1. Caniggia, I, Gutierrez, H, Rivera, A, Freeman, BA. Binding of xanthine oxidase to pulmonary fibroblasts and epithelium. *Am Rev Respir Dis*, 147: A444, 1993.
2. Nieves-Cruz, B, Briscoe, P, Caniggia, I, Gutierrez, H, Matalon, S, Tanswell, AK, Freeman, BA. Use of surfactant replacement therapy preparations for the pulmonary delivery of antioxidant enzymes. *Am Rev Respir Dis*, 147: A146, 1993.
3. Harris, PD, Gutierrez, HH, Arnaiz, PG, Moore, RV, Hirsch, TB, Romero, MS, Villarroel, Ldel P, Guiraldes, EC. Effect of Type of Feeding and Morbidity Due to Infectious Diseases in the First Six Months of Life *Ped Res*, 33: 118A, 1993.
4. Gutierrez, HH, Chumley, P and Freeman, BA. Endogenously produced and exogenously administered nitric oxide modulates superoxide-dependent lung injury. *Am J Respir Crit Care Med* 149:A550, 1994.
5. Gutierrez, HH, Chumley, P and Freeman, BA. Endogenously produced and exogenously administered nitric oxide modulates superoxide-dependent lung injury. *Pediatr Res* 35:392A, 1994.
6. Gutierrez, HH, Wong, H, Pitt, BR, Watkins, SC, Freeman, BA. Oxygen tension modulates inducible nitric oxide synthase expression in type II pneumocytes and cell responses to oxidant stress. *Am J Respir Crit Care Med* 151:A645, 1995.

7. Gutierrez, HH, Hoyt, DL, Pitt, BR, Freeman, BA, Rivera, A, Watkins, SC. Endogenous and exogenous nitric oxide activates apoptosis in alveolar epithelium. Symposium: Apoptosis in the Lung. *Am J Respir Crit Care Med* 151:A546, 1995.
8. Gutierrez, HH., Freeman, BA., Grenett, H. Nitric oxide and its reaction product peroxynitrite mediates apoptosis in lung epithelium. *Am J Respir Crit Care Med* 155:A194, 1997.
9. Gutierrez, HH, Bamberg, T., Freeman, BA. Dual action of nitric oxide in oxidant lung injury. *Am J Respir Crit Care Med* 159: A637, 1999.
10. Gutierrez, HH. Kuypers, FA. Evaluation of cellular chemotaxis by flow cytometry. *Blood* 96: 28b, 2000.
11. Gutierrez, H.H., Choi, H., Kuypers, F.A. Nitric oxide modulates migration of alveolar macrophages across alveolar epithelium. *Am J Respir Crit Care Med* 163: A743, 2001.
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15. Britton, L., Thrasher, S.A., Butler, D., Gutierrez, H.H. Prevalence of hypercalciuria in patients with cystic fibrosis. *Pediatr Pulmonol* 40: S327, 2005.
16. Gutierrez, H.H., Thrasher, S.A., Britton, L. Improvement of nutritional parameters in cystic fibrosis patients by implementing quality improvement techniques. *Pediatr Pulmonol* 40: S325, 2005.
17. Britton, L.J.; Thrasher, S.; Gutierrez, H. Managing up and out: Promoting a culture of improvement. *Pediatr Pulmonol* 41: S444, 2006.
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19. Houser, GH, Holt, CL, Clancy, JP, Gutierrez, HH, Young, KR, Leon, K, Rowe, SM, Gaggar, A, Robin, NH. Adolescents and young adults with CF: Knowledge of the genetic basis of CF and their reproductive risks. *Pediatr Pulmonol* 42: S268, 2007.
20. Britton, LJ, Carroll, S, Sims, P, Tofil, N, Gutierrez, HH. Are antibiotic synergy studies beneficial aids in the treatment of acute pulmonary exacerbations in cystic fibrosis patients? *Pediatr Pulmonol* 42: S318, 2007.
21. Thrasher, S, Gutierrez, HH, Britton, LJ. Causes and interventions for missed appointments. *Pediatr Pulmonol* 42: S372, 2007.
22. Mims, CR, Bains, K, Thrasher, S, Britton, LJ, Gutierrez, HH. Use of phone triage algorithm improves consistency of nursing assessment for CF pulmonary exacerbations. *Pediatr Pulmonol* 42: S409, 2007.
23. Seals, NI, Britton, LJ, Wooldridge, NH, Gutierrez, HH. Implementation of a dietary intake record program helps better nutrition management in patients with cystic fibrosis. *Pediatr Pulmonol* 43: S433, 2008.
24. Seals, NI, Britton, LJ, Wooldridge, NH, Gutierrez, HH. No differences in surveillance vitamin A level in CF patients obtained during periods of acute illness and stable health. *Pediatr Pulmonol* 43: S433, 2008.
25. Moreland, E, Mims, C, Britton, LJ, Wooldridge, NH, Hoover, W, Gutierrez, HH, Rowe, SR. Serum insulin levels in CF patients undergoing screening oral glucose tolerance testing. *Pediatr Pulmonol* 43: S444, 2008.
26. Thrasher, S, Boren, K, Britton, LJ, Gutierrez, HH. Use of virtual learning collaborative to engage a CF team in patient self-management support. *Pediatr Pulmonol* 43: S458, 2008.
27. Gerwin, AM, Britton, LJ, Benner, K, Tofil, N, Gutierrez, HH, Troxler, RB, Hoover, WC. Pseudomonas aeruginosa eradication in cystic fibrosis patients: A retrospective review. *Pediatr Pulmonol* 44: S339, 2009.
28. Britton, LJ, Hoover, W, Mims, C, Gutierrez, HH. Reorganization of annual visits improves clinic efficiency and satisfaction of team, patients and families. *Pediatr Pulmonol* 44: S382, 2009.
29. Seals, NI, Britton, LJ, Gutierrez, HH, Gunter, L, Wooldridge, N. Specialized nutrition clinic enhances delivery of nutrition interventions and improves nutritional status. *Pediatr Pulmonol* 44: S395, 2009.

30. Britton, LJ, Moreland, E, Wooldridge, N, Mims, C, Gutierrez, HH, Rowe, SM, Hoover, W. Development of a CFRD clinic improves consistency of care. *Pediatr Pulmonol* 44: S417, 2009.
31. Boren, KE, Gunter, LH, Gutierrez, HH, Britton, LJ. Maintaining professional boundaries. *Pediatr Pulmonol* 44: S430, 2009.

**Oral Presentations:****INVITED PRESENTATIONS, INTERNATIONAL MEETINGS:**

- NO and Free Radicals. Invited lecture at the 6th International Symposium on Clinical Intensive Care. Bremen, Germany. February 16, 1996.
- Co-Chairman: NO and Sepsis Syndrome (Meet the Expert Seminar) at the 6th International Symposium on Clinical Intensive Care. Bremen, Germany. February 16, 1996.
- Bronchopulmonary Dysplasia: An Update. Invited lecture at the 2<sup>nd</sup> International Course in Pediatrics, Chillan, Chile. May 29, 1998.
- Pulmonary Function Tests in Pediatrics. Invited lecture at the 2<sup>nd</sup> International Course in Pediatrics, Chillan, Chile. May 30, 1998.
- Asthma Update. Invited lecture at the 2<sup>nd</sup> International Course in Pediatrics, Chillan, Chile. May 30, 1998.
- Ambulatory Management of Bronchopulmonary Dysplasia. Pediatric Grand Rounds, Catholic University of Chile, Santiago, Chile. June 4, 1998.
- Pediatric Bronchoscopy. Invited lecture at the Annual Pediatric Update. Universidad de la Frontera, Temuco, Chile. July 11, 2001.
- Sleep Disorder in Pediatrics. Invited lecture at the Annual Pediatric Update. Universidad de la Frontera, Temuco, Chile. July 13, 2001.
- Asthma Update. Plenary lecture. Commemoration of the 30<sup>th</sup> year of the Pediatric Residency Program at Catholic University of Chile. Santiago, Chile. August 17, 2001.
- Obstructive Sleep Apnea. Invited Conference at the 22<sup>nd</sup> Colombian Pediatric Congress, Santa Marta, Colombia. October 12, 2001.
- Corticosteroids and Pediatric Asthma. Invited Conference at the 22<sup>nd</sup> Colombian Pediatric Congress, Santa Marta, Colombia, October 13, 2001.
- Role of Nitric Oxide in Lung Injury. Conference at the 35<sup>th</sup> Chilean Respiratory Society Congress, Valdivia, Chile. November 7, 2002.
- Ambulatory Mechanical Ventilation, CPAP and BiPAP. Plenary Lecture at the 35<sup>th</sup> Chilean Respiratory Society Congress, Valdivia, Chile. November 8, 2002.
- Clinical Value of New Asthma Developments in Pediatrics. Lecture at the 35<sup>th</sup> Chilean Respiratory Society Congress, Valdivia, Chile. November 9, 2002.
- Non-Invasive Ventilation in Congenital Neuromuscular Disease. International Seminar on Non-Invasive Ventilation in Pediatrics. Santiago, Chile. May 5-6, 2005.
- Non-Invasive Ventilation Support in Chronic Respiratory Failure. International Seminar on Non-Invasive Ventilation in Pediatrics. Santiago, Chile. May 5-6, 2005.
- Non-Invasive Ventilation in Congenital in a Developed Country. International Seminar on Non-Invasive Ventilation in Pediatrics. Santiago, Chile. May 5-6, 2005.
- Cough-Assistive Devices: Practical Points. International Seminar on Non-Invasive Ventilation in Pediatrics. Santiago, Chile. May 5-6, 2005.
- Strategies to Eradicate Bacterial Pathogens From CF Airways. TOBI Investigators' Meeting. Mexico City, Mexico May 19, 2005
- Strategies to Eradicate Bacterial Pathogens From CF Airways. Clinical Grand Rounds, Caracas, Venezuela. May 20, 2005; Bogota, Colombia. May 21, 2005.
- Eradication of Bacterial Pathogens From CF Airways. Clinical Grand Rounds, Cape Town, South Africa. January 26, 2006.
- Advances in the Treatment of Infections of Cystic Fibrosis Patients. 41<sup>st</sup> Chilean Congress in Respiratory Diseases. Chillan, Chile. November 5, 2008.
- Use and Implementation of Care Guidelines in Cystic Fibrosis. 41<sup>st</sup> Chilean Congress in Respiratory Diseases. Chillan, Chile. November 6, 2008.
- Can Chile Develop CF Treatment Centers? 41<sup>st</sup> Chilean Congress in Respiratory Diseases. Chillan, Chile. November 6, 2008.

- Transition from Adolescence to Adulthood in CF Care. 41<sup>st</sup> Chilean Congress in Respiratory Diseases. Chillan, Chile. November 8, 2008.
- Sustained Quality Improvement Interventions Lead to Significant Improvement in Clinical Outcomes in Cystic Fibrosis. 2010 International Forum on Quality and Safety in Health Care. Nice, France. April 22, 2010.

#### **Scientific Papers Presented at Local and Regional Meetings - None**

#### **Invited Workshops, etc., at National Postgraduate Courses, Meetings and Other Universities**

- Facilitator: Oxidants/Antioxidants. Thematic Poster Session, 1999 American Lung Assoc./ American Thoracic Soc. (ALA/ATS) International Conference. San Diego, CA. April 28, 1999.
- “Managing up and out: Promoting a Culture of Improvement”, in Workshop Session: Maintaining the Momentum of Improvement. Twentieth annual North American Cystic Fibrosis Conference. Denver, CO. November 2, 2006.
- “Implementation of Continuous Quality Improvement Practices Leads to Significant Gains in Nutrition Outcomes of CF Patients”, in Consultation Clinic: Quality Improvement Projects. Twentieth annual North American Cystic Fibrosis Conference. Denver, CO. November 4, 2006.

#### **Invited Lectures at Local and Regional Courses and Meetings**

- Asthma: Pharmacotherapy and Long Term Management. Lecture at Pediatric Asthma Update, University of Alabama at Birmingham, Birmingham, AL. November 7, 1998.
- Inhalation of Antibiotics for Respiratory Diseases. Respiratory Update 1999. American Lung Association of Alabama, Birmingham, AL. March 16, 1999.
- New Clinical Developments in Pediatric Asthma. Lecture at Respiratory Update, Nevada Lung Association, Reno, NV March 6, 2002.
- Sleep Disorders in Children. Respiratory Update 2004. American Lung Association of Alabama, Birmingham, AL. February 27, 2004.

#### **Grand Rounds**

- Asthma: Controversies in Inhaled Steroids. The Children's Hospital of Alabama. March 2, 1995.
- Influenza Pneumonia. Pediatric Grand Rounds, The Children's Hospital of Alabama. January 29, 1998
- The Snoring Child. Pediatric Grand Rounds. Kaiser Permanente Hospital –Hayward. Hayward, CA. June 26, 2001.
- Pediatric Obstructive Sleep Apnea. An update. Pediatric Grand Rounds. California Pacific Medical Center, San Francisco, CA. July 12, 2002.
- Community Acquired Pneumonia in Pediatrics. Pediatric Grand Rounds. California Pacific Medical Center, San Francisco, CA. July 11, 2003.
- Newborn Screening in Alabama: The New Cystic Fibrosis Newborn Screening. The Children's Hospital of Alabama, September 20, 2007; Jefferson County Health Department, Birmingham, AL. November 20, 2007; Northeast Alabama Regional Medical Center, Anniston, AL. November 29, 2007. St. Vincent's Hospital, Birmingham, AL. December 5, 2007.
- An Organized Way to Improve Clinical Outcomes: Our Experience with Cystic Fibrosis. Pediatric Surgery Grand Rounds. The Children's Hospital of Alabama. Department of Surgery-UAB. December 3, 2008.
- Treatment Approaches to Managing Airway Infection in Cystic Fibrosis. Pediatric Grand Rounds. University of Mississippi Medical Center, Jackson, MS. November 11, 2009

**MISCELLANEOUS:****Films, Educational Tapes, Syllabi, Software Packages and Courses Developed, etc.****Educational DVD:**

- Contribution of case study for the DVD tutorial “Action Guide for Accelerating Improvement in Cystic Fibrosis Care”. Cystic Fibrosis Foundation. 2006.

**Courses Developed:**

- “Implementation of a Coordinated Care Approach to Improve Cystic Fibrosis Patient Outcomes” PeerPoint, Inc., A webcast educational session. It is available at the website <http://teamcfcare.org/>. From an unrestricted educational grant from Genentech, Inc. October – December 2007.
- “CF QI initiative for Coordinated Care Teams”. PeerPoint, Inc. A webcourse planned for CF care teams, November 2009. From an unrestricted educational grant from Genentech, Inc. 2009.
- “Achieving Safe Care through Reliable Processes” Special Topic Course, UASOM, 2008. This course explores the importance of safety and reliability in clinical care environments. It provides a brief overview of this topic beginning with a description of problems, approaches to addressing the problems, and impact on future career of students.
- “Practical Biostatistics” Part of the combined core curriculum for critical care, Neonatology and Pulmonology programs. Department of Pediatrics- UAB. January 10 – March 06, 2008; April 22 – May 27, 2010. Course designed to review the basis of statistical analysis, and help to understand biostats and results in the medical literature.

**Fellowship Training:**

- Director, Pediatric Pulmonary Fellowship program, 2003-2009. Developed and coordinated pulmonary fellowship training core curriculum with Division Chief.

**Community Activities:**

- Invited speaker, “Childhood Asthma”, aired radio show “Sembrando las Semillas de la Salud”, at 10Q 1500 AM Radio Station. Pelham, AL. November 17, 2007. January 10, 2009.
- Invited speaker, “Asthma. What you need to teach”. Minority Health Research Center –UAB. Didactic mentorship to Hispanic community educators. 2008
- Educational sessions to primary care providers state-wide regarding the new Cystic Fibrosis Newborn Screening Program to be implemented in Alabama in 2008. September 2007 – April 2008.
- Invited Interview on Cystic Fibrosis news segment on WVTM-TV (NBC13), Birmingham, AL. October 1, 2008.

Descripción de las funciones de algunos de los comités en que soy miembro y que son parte de mi actividad académica.

<b>Comités</b>	<b>Descripción</b>
Center Committee, Cystic Fibrosis Foundation (CFF)	Este comité es el encargado de dictar las líneas generales de funcionamiento de todos los centros FQ en USA. Además está a cargo de la acreditación de cada centro FQ. Otra de sus funciones es la supervigilancia de los centros FQ de modo de asegurar la probidad y facilitar la resolución de barreras que interfieren con la prestación de la mas alta calidad y el cuidado centrado en el paciente.
Pulmonary Therapies Committee, CFF	Este comité se encarga de evaluar, emitir y revisar todas las guías de cuidado clínico basada en evidencias relacionadas con todo lo relacionado a tratamientos, protocolos de atención y manejo de complicaciones respiratorias en FQ. El comité usa metodologías científicas establecidas en la revisión de la literatura (meta-análisis, Delphi, etc) al producir sus monografías.
Newborn Screening Special Interest Group, CFF	Este comité evalúa, investiga y recomienda en todos los aspectos relacionados al diagnostico de FQ por tamizaje neonatal y cuidado del lactante con FQ.
Data Safety Monitoring Board, CFF	Este comité presta supervigilancia estudios de investigación en lo relacionado a efectos adversos de terapias experimentales bajo estudio.
Alabama Newborn Screening Advisory Committee	Este comité es el encargado de asesorar al Departamento de Salud del Estado de Alabama en materias de tamizaje neonatal.
Quality Improvement Council, Children's Hospital	Este consejo es el encargado de desarrollar y supervigilar el proceso de Gestión de Calidad en todos los aspectos de calidad de las labores clínicas de la institución (seguridad, eficiencia, excelencia, resultados clínicos, etc).