

**BIOGRAPHICAL SKETCH**

Provide the following information for the key personnel and other significant contributors in the order listed on Form Page 2.  
Follow this format for each person. **DO NOT EXCEED FOUR PAGES.**

NAME <b>Juan Carlos Celedón</b>	POSITION TITLE Associate Physician, Brigham and Women's Hospital Associate Professor of Medicine, Harvard Medical School		
eRA COMMONS USER NAME JCC123			
EDUCATION/TRAINING <i>(Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.)</i>			
INSTITUTION AND LOCATION	DEGREE <i>(if applicable)</i>	YEAR(s)	FIELD OF STUDY
Facultad de Medicina, Pontificia Universidad Javeriana, Santa Fe de Bogotá, Colombia	M.D.	1988	Medicine
Harvard School of Public Health, Boston, MA	M.P.H.	1999	Quantitative Methods
Harvard School of Public Health, Boston, MA	Dr.P.H.	2001	Genetic Epidemiology

**A. POSITIONS AND HONORS:**

1988 Best Graduate, Pontificia Universidad Javeriana School of Medicine, Bogotá, Colombia  
1989-1990 Intern, Internal Medicine, Lincoln Hospital, New York Medical College, Bronx, NY  
1990-1992 Resident, Internal Medicine, Beth Israel Hospital, The Mount Sinai School of Medicine, NY, NY  
1992-1995 Fellow, Pulmonary/Critical Care Medicine Div., Brown U. School of Medicine, Providence, RI  
1995-1997 Staff Pulmonologist/Intensivist, Dept. of Medicine, Erie VA Medical Center, Erie, PA  
1997-1999 Research/Clinical Fellow, Channing Laboratory, Brigham and Women's Hospital, Harvard Medical School, Boston, MA  
1999-2001 Charles A. King Trust Research Fellow, The Medical Foundation, Boston, MA  
1999-2002 Instructor in Medicine, Harvard Medical School  
1999- Associate Physician, Brigham and Women's Hospital  
2002 Ad Hoc Peer Review Committee, Health Research Board, Ireland  
2002- Associate Director, Fellowship Training Program in Clinical Epidemiology of Lung Diseases, Channing Laboratory, Brigham and Women's Hospital  
2003-2006 Assistant Professor of Medicine, Harvard Medical School  
2003- Director, Genetics Research, Center for Clinical Investigation, Brigham and Women's Hospital  
2003 Ad Hoc Reviewer, National Institute of Environmental Health Sciences Special Emphasis Panel  
2003- Director, Human Genetics Course, Scholars in Clinical Science Program, Harvard Medical School  
2005 American Thoracic Society Representative, National Workshop to Reduce Asthma Disparities  
2005 Genetics and Molecular Sciences Section, National Workshop to Reduce Asthma Disparities  
2005 Young Mentor Award, Harvard Medical School  
2006 Workshop on Personalized Lung Medicine (National Heart, Lung, and Blood Institute [NHLBI])  
2006 Teacher of the Year Award, Scholars in Clinical Science Program, Harvard Medical School  
2006 New Investigator Workshop (Section on Development and Origins of Lung Disease), NHLBI  
2006-2007 Ad Hoc Member, Infectious Diseases, Reproductive Health, Asthma, and Other Pulmonary Disorders (IRAP) Study Section, NHLBI  
2006- Member, Editorial Board, American Journal of Respiratory and Critical Care Medicine  
2007- Associate Professor of Medicine, Harvard Medical School  
2007 Expert Panel for NHANES Survey, National Institute of Environmental Health Sciences (NIEHS)  
2007 Scientific Review Committee, American Thoracic Society  
2008- Planning Committee, Environmental/Occupational Health Assembly, American Thoracic Society  
2008 Workshop on Global Variability in Response to Air Pollution, NIEHS  
2009- Program Committee, Environmental/Occupational Health Assembly, American Thoracic Society

**B. PUBLICATIONS (SELECTED FROM 96 MANUSCRIPTS):**

1. **Celedón JC**, Litonjua AA, Weiss ST, et al. Day care attendance in the first year of life and illnesses of the upper and lower respiratory tract in children with familial history of atopy. *Pediatrics* 1999;104:495-500.
2. **Celedón JC**, Speizer FE, Drazen JM, et al. Bronchodilator responsiveness and serum total IgE levels in families of probands with severe, early-onset COPD. *Eur Respir J* 1999;14:1009-14.

Principal Investigator/Program Director (Last, Middle,First): Celedón, Juan C.

3. **Celedón JC**, Palmer LJ, Xu X, et al. Sensitization to silk and childhood asthma in rural China. *Pediatrics* 2001;107:e80.
4. **Celedón JC**, Palmer LJ, Weiss ST, et al. Asthma, rhinitis, and skin test reactivity to aeroallergens in families of asthmatic subjects in Anqing, China. *Am J Respir Crit Care Med* 2001;163:1108-12.
5. **Celedón JC**, Soto-Quiros ME, Silverman EK, et al. Risk factors for childhood asthma in Costa Rica. *Chest* 2001;120:785-90.
6. **Celedón JC**, Palmer LJ, Litonjua AA, et al. Body mass index and asthma in adults in families of asthmatic subjects in Anqing, China. *Am J Respir Crit Care Med* 2001;164:1835-40.
7. **Celedón JC**, Litonjua AA, Ryan L, et al. Day care, respiratory infections, wheezing, asthma, and total serum IgE in early childhood. *Arch Pediatr Adol Med* 2002;156:241-5.
8. **Celedón JC**, Soto-Quiros ME, Palmer LJ, et al. Lack of association between a polymorphism in the IL-13 gene and total serum IgE among nuclear families in Costa Rica. *Clin Experim Allergy* 2002;32:387-90.
9. Soto-Quiros ME, Silverman EK, Hanson LÅ, Weiss ST, **Celedón JC**. Maternal history, sensitization to allergens, and current wheezing, rhinitis, and eczema among children in Costa Rica. *Pediatr Pulmonol* 2002;33:237-43.
10. **Celedón JC**, Soto-Quiros ME, Hanson LÅ, et al. The relation among markers of allergy, asthma, allergic rhinitis, and eczema in Costa Rica. *Pediatr Allergy Immunol* 2002;13:90-6.
11. **Celedón JC**, Litonjua AA, Ryan L, et al. Lack of association between antibiotic use in the first year of life and asthma, allergic rhinitis, or eczema at age 5 years. *Am J Respir Crit Care Med* 2002;166:72-5.
12. **Celedón JC**, Litonjua AA, Ryan L, et al. Exposure to cat allergen, maternal history of asthma, and wheezing in the first five years of life. *Lancet* 2002;360:781-2.
13. **Celedón JC**, Litonjua AA, Ryan L, et al. Bottle feeding in the bed or crib before sleep time in the first year of life and wheezing in the first five years of life. *Pediatrics* 2002;110:e77.
14. **Celedón JC**, Wright RJ, Litonjua AA, et al. Day care attendance in early life, maternal history of asthma, and asthma at age 6 years. *Am J Respir Crit Care Med* 2003;167:1239-43.
15. **Celedón JC**, Sredl D, Weiss ST, et al. Ethnicity and skin test reactivity to aeroallergens among asthmatic children in Connecticut. *Chest* 2004;125:85-92.
16. **Celedón JC**, Fuhlbrigge A, Rifas-Shiman S, et al. Antibiotic use in the first year of life and asthma at age 5 years. *Clin Experim Allergy* 2004;34:1011-6.
17. **Celedón JC**, Lange C, Raby BA, et al. The transforming growth factor- $\beta$ 1 (TGFB1) gene is associated with chronic obstructive pulmonary disease (COPD). *Hum Mol Genet* 2004;13:1649-56.
18. Ramsey CD, **Celedón JC**, Sredl DL, et al. Predictors of disease severity in children with asthma in Hartford, Connecticut. *Pediatr Pulmonol* 2005;39:268-75.
19. Phipatanakul W, Gold DR, Muilenberg M, Sredl DL, Weiss ST, **Celedón JC**. Predictors of indoor exposure to mouse allergen in urban and suburban homes in Boston. *Allergy* 2005; 60:697-701.
20. Ramsey CD, Lazarus R, Camargo C, Weiss ST, **Celedón JC**. Polymorphisms in the interleukin 17F gene (*IL17F*) and asthma. *Genes Immun* 2005; 6:236-41.
21. Ramsey CD, **Celedón JC**. The hygiene hypothesis and asthma. *Curr Opin Pulm Med* 2005; 11(1):14-20.
22. Hunninghake GM, Weiss ST, **Celedón JC**. State of the Art: Asthma in Hispanics. *Am J Respir Crit Care Med* 2006; 173:143-163.
23. DeMeo DL, Mariani T, Lange C, Litonjua A, **Celedón JC**, et al. The SERPINE2 gene is associated with chronic obstructive pulmonary disease. *Am J Hum Genet* 2006; 78:253-264.
24. Cohen R, **Celedón JC**, Hinckson V, et al. Health care use among Puerto Rican and African American children with asthma. *Chest* 2006; 130(2):463-71.
25. Ly NP, Gold DR, Weiss ST, **Celedón JC**. Recurrent wheeze in early childhood and asthma among children at risk for atopy. *Pediatrics* 2006; 117:e1132-8.
26. Ly NP, Ruiz-Pérez B, Onderdonk A, Tzianabos A, Litonjua A, Liang C, Laskey D, Delaney M, DuBois A, Levy H, Gold D, Ryan L, Weiss ST, **Celedón JC**. Mode of delivery and cord blood cytokines: a birth cohort study. *Clin Mol Allergy* 2006;4:13.
27. Cohen R, **Celedón JC**. Asthma among Hispanics in the United States. *Chest Clin North Am* 2006; 27:401-12.
28. Ramsey CD, Gold DR, Litonjua AA, Sredl D, Ryan L, **Celedón JC**. Respiratory illnesses in the first year of life and asthma and atopy in childhood. *J Allergy Clin Immunol* 2007;119:150-6.
29. **Celedón JC**, Soto-Quiros ME, Avila L, et al. Significant linkage to airway responsiveness on chromosome 12q24 in families of children with asthma in Costa Rica. *Hum Genet* 2007;120:691-9.

Principal Investigator/Program Director (Last, Middle,First): Celedón, Juan C.

30. Raby B, Soto-Quiros M, Avila L, Lake S, Liang C, Fournier E, Spesny M, Sylvia J, Verner A, Hudson T, Klanderma n B, Freimer N, Silverman E, **Celedón JC**. Sex-specific linkage to total serum IgE in families of children with asthma in Costa Rica. *Hum Mol Genet* 2007; 16:243-53.
31. Hersh CP, Soto-Quiros M, Avila L, Lake S, Liang C, Fournier E, Spesny M, Sylvia J, Lazarus R, Hudson T, Verner A, Klanderma n B, Freimer NB, Silverman E, **Celedón JC**. Genome-wide linkage analysis of pulmonary function in families of children with asthma in Costa Rica. *Thorax* 2007; 62:224-30.
32. Hunninghake GM, Soto-Quiros M, Avila L, Ly N, Liang C, Sylvia J, Klanderma n BJ, Silverman EK, **Celedón JC**. Sensitization to *Ascaris* and severity of childhood asthma in Costa Rica. *J Allergy Clin Immunol* 2007; 119:654-61.
33. Cohen RT, Canino G, Bird H, Shen S, Rosner B, **Celedón JC**. Area of residence, birthplace, and asthma in Puerto Rican children. *Chest* 2007; 131:1331-8.
34. **Celedón JC**, Milton DK, Ramsey CD, et al. Exposure to dust mite allergen and endotoxin in early life and asthma and atopy in childhood. *J Allergy Clin Immunol* 2007; 120:144-9.
35. Hunninghake GM, Soto-Quiros M, Avila L, Su J, Murphy A, DeMeo D, Ly N, Liang C, Sylvia J, Klanderma n B, Lange C, Raby B, Silverman E, **Celedón JC**. Polymorphisms in IL13, total IgE, eosinophilia, and asthma exacerbations in childhood. *J Allergy Clin Immunol* 2007; 120:84-90.
36. Hersh CP, Raby BA, Soto-Quiros M, Murphy A, Avila L, Lasky-Su J, Sylvia JS, Klanderma n BJ, Lange C, Weiss ST, **Celedón JC**. Comprehensive testing of positionally cloned asthma genes in two populations. *Am J Respir Crit Care Med* 2007; 176:849-57.
37. Ly NP, **Celedón JC**. Family history, environmental exposures, and childhood asthma. *J Allergy Clin Immunol* 2007; 120:271-2.
38. Vansteelandt S, DeMeo DL, Su J, Smoller J, Murphy AJ, McQueen M, Schneiter K, **Celedón JC**, et al. Testing and estimating gene-environment interactions in family-based association studies. *Biometrics* 2007 October 27; Epub ahead of print.
39. Rogers AJ, **Celedón JC**, Lasky-Su J, et al. Fillagrin mutations confer susceptibility to atopic dermatitis but not to asthma. *J Allergy Clin Immunol* 2007; 120:1332-7.
40. Scirica C, **Celedón JC**. The genetics of asthma in ethnic minority populations in the United States. *Chest* 2007; 132:770S-781S.
41. Fardo D, **Celedón JC**, Raby BA, et al. On dichotomizing phenotypes in family-based association tests: quantitative phenotypes are not always the optimal choice. *Genet Epidemiol* 2007; 31:376-82.
42. Brehm J, **Celedón JC**. Pulmonary Perspective: COPD in Hispanics. *Am J Respir Crit Care Med* 2008; 177:473-8.
43. Ly NP, Soto-Quiros ME, Avila L, Hunninghake GM, Raby BA, Laskey D, Sylvia JS, **Celedón JC**. Paternal asthma, mold exposure, and increased airway responsiveness among children with asthma in Costa Rica. *Chest* 2008; 133:107-114.
44. Hunninghake G, Lasky-Su J, Soto-Quiros M, Avila L, Liang C, Lake S, Hudson T, Spesny M, Fournier E, Sylvia J, Freimer N, Klanderma n B, Raby B, **Celedón JC**. Sex-stratified linkage analysis identifies a locus for IgE to cockroach in female Costa Ricans. *Am J Respir Crit Care Med* 2008; 177:830-6.
45. Lasky-Su J, Lyon H, Emilsson V, Thorleifsson G, Thorsteinsdottir U, Stefansson K, Lazarus R, Klanderma n B, Raby BA, Soto-Quiros ME, Avila L, Silverman EK, **Celedón JC**, et al. On the replication of genetic associations: timing can be everything! *Am J Hum Genet* 2008; 82:849-58.
46. Pistiner M, Gold DR, Abdulkerim H, Hoffman E, **Celedón JC**. Birth by cesarean section, allergic rhinitis, and allergic sensitization among children with parental history of atopy. *J Allergy Clin Immunol* 2008; 122:274-9.
47. Cohen RT, Canino G, Byrd HR, **Celedón JC**. Violence, abuse, and asthma in Puerto Ricans. *Am J Respir Crit Care Med* 2008; 178:453-9.
48. Hunninghake G, Soto-Quiros M, Lasky-Su J, Avila L, Ly N, Liang C, Klanderma n B, Raby B, Gold D, Weiss S, **Celedón JC**. Dust mite exposure modifies the effect of functional *IL10* polymorphisms on allergy and asthma exacerbations. *J Allergy Clin Immunol* 2008;122:93-8.
49. Sharma S, Raby BA, Soto-Quiros M, Avila L, Murphy A, Klanderma n B, Sylvia J, Weiss ST, **Celedón JC**. Functional variants in TGFB1 are associated with increased airway responsiveness and disease exacerbations in children with asthma. *Am J Respir Crit Care Med* 2009; 179(5):356-62.
50. Brehm J\*, **Celedón JC\***, Soto-Quiros M, et al. Vitamin D and severity of childhood asthma in Costa Rica. *Am J Respir Crit Care Med* 2009; In Press. \*Shared first authorship.

Principal Investigator/Program Director (Last, Middle,First): Celedón, Juan C.

### **C. RESEARCH SUPPORT:**

#### **Ongoing Research Support**

1 R01 HL073373-03 (Celedón) 02/04/05 – 01/31/10  
NIH/NHLBI Role: Principal Investigator

#### **The Genetic Epidemiology of COPD in Costa Rica**

The specific aim of this proposal is to identify susceptibility genes for COPD in Hispanics by collecting data on members of families of individuals with COPD living in the Central Valley of Costa Rica. Linkage and association studies will be performed for COPD-related phenotypes.

1 R01 HL079966-01 (Celedón) 08/01/06 – 07/31/11  
NIH/NHLBI Role: Principal Investigator

#### **Genes, Home Allergens, and Asthma in Puerto Rican Children**

The specific aims of this proposal are to identify susceptibility genes for asthma and to examine the relation between indoor allergens and asthma in a cohort of Puerto Rican children with (cases) and without (control subjects) asthma. Association studies will be performed for asthma-related phenotypes.

2 R01 HL066289-06 (Weiss) 04/01/07 – 03/31/11  
NIH Role: Co-Investigator

#### **The Genetic Epidemiology of Asthma in Costa Rica**

This study is to identify genes that may be important in predicting asthma in Hispanics, by collecting parent-child trios and extended pedigrees with asthma in a genetically isolated population in the Central Valley of Costa Rica. Linkage and association studies will be performed for asthma-related phenotypes.

1 P01 HL083069-01 (Weiss) 3/23/07 – 1/31/12  
NIH/NHLBI Role: Co-Investigator on Project 1

#### **Common Genetic Determinants of Asthma and COPD**

The goal of this project is to find common genetic determinants for asthma and COPD relevant to human disease and assess their functional effects in animal models.

1 R21 HL089842 (Litonjua) 7/20/07 – 6/30/09  
NIH Role: Co-Investigator

#### **Vitamin D in Obstructive Lung Diseases**

This project aims to study the effects of vitamin D on the development and functioning of the immune system.

1 R01 HL093076A (Raby) 07/01/08 – 06/30/12  
NIH Role: Co-Investigator

#### **Structural Genetic Variation in Asthma**

The goal of this study is to identify novel CNVs that confer risk for asthma by conducting association studies among children in the Childhood Asthma Management Program (CAMP), with replication studies in three ethnically diverse asthma cohorts. Functional studies will be performed for well-replicated CNVs.

1 UL1 RR025758-01 (Nadler) 05/19/08- 04/30/2013  
NIH Role: Co-Investigator

#### **Harvard Clinical and Translational Science Center**

The goal of this project is to provide resources to educate the next generation of researchers, to design new informatics tools for clinical research, to support outreach to underserved populations and local communities, and to assemble interdisciplinary teams and forge new partnerships with healthcare organizations.

#### **Completed Research Support**

1 K01 HL004370 (Celedón) 07/05/01 – 04/30/07  
NIH/NHLBI Role: Principal Investigator

#### **The Genetic Epidemiology of Asthma in Costa Rica**

The specific aim of this proposal was to provide an opportunity for the Principal Investigator to gain knowledge and skills in genetic epidemiology. This was done through didactic course work and a study of the development of asthma and asthma phenotypes in a large and homogeneous subset of Hispanic subjects.