**CURRICULUM VITAE**

**David B. Peden, MD, MS**

**Personal**

Residence:

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The University of North Carolina School of Medicine

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**Education:**

7/87-7/90 Fellowship, Allergy & Immunology

 Allergic Diseases Section (Michael A. Kaliner, MD, Chief)

 Laboratory of Clinical Investigation

National Institute of Allergy & Infectious Diseases

National Institutes of Health

Bethesda, MD

7/84-6/87 Internship and Residency in Pediatrics, Department of Pediatrics

 West Virginia University Medical Center

 Morgantown, WV

1984 Doctor of Medicine

 West Virginia University

1984 Master of Science, Pharmacology and Toxicology

(Knox Van Dyke, PhD, major advisor)

 West Virginia University

1980 Bachelor of Arts, *cum laude,* Citation in the Departmental Honors Program, Department of Biology, West Virginia University

Professional Certification/Licensure:

 Diagnostic Laboratory Immunology (#130), 1990 (permanent certification)

American Board of Allergy and Immunology (#3150), 1989, re-certified through 2021

 American Board of Pediatrics (#38304), 1988, re-certified through Dec 2024

 American Board of Medical Examiners (#298021), 1985 (permanent certification)

 North Carolina Medical License #35461

 Maryland License #D35066 (Inactive)

 West Virginia License #14377 (Inactive)

 DEA# FP2368985

**Professional Experience:**

Primary Academic Appointments at UNC:

2/12-date Harry S. Andrews Distinguished Professor of Pediatrics

School of Medicine

University of North Carolina at Chapel Hill, Chapel Hill, NC

6/02-date Professor of Pediatrics, School of Medicine, University of North Carolina at Chapel Hill, Chapel Hill, NC

9/96-6/02 Associate Professor of Pediatrics

 School of Medicine, University of North Carolina at Chapel Hill

7/92-9/96 Assistant Professor of Pediatrics

 School of Medicine-University of North Carolina at Chapel Hill

 Chapel Hill, NC

Current Administrative Positions:

12/11-date Senior Associate Dean for Translational Research

 School of Medicine, University of North Carolina at Chapel Hill

5/18-date Associate Director for Cross-Disciplinary Science

NC Translational and Clinical Science Institute (CTSA)

University of North Carolina at Chapel Hill

Chapel Hill, NC

6/16-date Vice Chair for Translational Research

Department of Pediatrics, School of Medicine

University of North Carolina at Chapel Hill

 Chapel Hill, NC

7/02-date Director,

Center for Environmental Medicine, Asthma & Lung Biology

 School of Medicine-University of North Carolina at Chapel Hill

 Chapel Hill, NC

2/02-date Chief, Division of Allergy, Immunology & Rheumatology

 Department of Pediatrics, School of Medicine

 University of North Carolina at Chapel Hill

 Chapel Hill, NC

Active additional academic positions:

12/02-date Faculty Member, Curriculum in Toxicology

School of Medicine, University of North Carolina at Chapel Hill

 Chapel Hill, NC

4/03-date Adjunct Professor of Epidemiology,

Gillings Global School of Public Health, University of North Carolina at Chapel Hill

6/03 -date Professor of Medicine

School of Medicine, University of North Carolina at Chapel Hill

 Chapel Hill, NC

11/08-date Professor, Department of Microbiology & Immunology

School of Medicine, University of North Carolina at Chapel Hill

 Chapel Hill, NC

6/11-date Adjunct Professor of Environmental Sciences and Engineering, Gillings Global School of Public Health, University of North Carolina at Chapel Hill

8/12-date Clinical Professor of Surgery (Burn Center)

School of Medicine, University of North Carolina at Chapel Hill

 Chapel Hill, NC

Prior Administrative Positions:

7/17-6/18 Interim Director

 Institute for the Environment

University of North Carolina at Chapel Hill

 Chapel Hill, NC

11/13-5/18 Service Director for Team Science

NC Translational and Clinical Science Institute (CTSA)

University of North Carolina at Chapel Hill

Chapel Hill, NC

12/04-6/16 Associate Chair for Research

Department of Pediatrics, School of Medicine

University of North Carolina at Chapel Hill

 Chapel Hill, NC

11/07-11/13 Co-Director, Inflammatory Diseases Institute

School of Medicine-University of North Carolina at Chapel Hill

Chapel Hill, NC

12/11-11/13 Service Director for Clinical Research Resources

NC Translational and Clinical Science Institute (CTSA)

University of North Carolina at Chapel Hill

Chapel Hill, NC

11/07-12/11 Deputy Director for Child Health Research,

NC Translational and Clinical Science Institute (CTSA)

University of North Carolina at Chapel Hill

Chapel Hill, NC

7/04-9/10 Program Director, Allergy and Immunology Training Program

 University of North Carolina Hospitals

 Chapel Hill, NC

10/01-7/02 Deputy Director,

Center for Environmental Medicine & Lung Biology

 School of Medicine-University of North Carolina at Chapel Hill

 Chapel Hill, NC

9/95-10/01 Associate Director,

Center for Environmental Medicine & Lung Biology

 School of Medicine-University of North Carolina at Chapel Hill

 Chapel Hill, NC

5/00-1/02 Medical Director, Pediatric Ambulatory Services

Department of Pediatrics

University of North Carolina at Chapel Hill, Chapel Hill, NC

7/92-12/01 Director, Allergy & Immunology Program

 Division of Pulmonary Medicine & Allergy

 Department of Pediatrics, University of North Carolina-CH

3/98-9/99 Co-Director,

Allergy, Immunology & Rheumatology Consultation Service

 Department of Pediatrics, University of North Carolina-CH

 Chapel Hill, NC

7/92-9/95 Investigator,

Center for Environmental Medicine & Lung Biology

 School of Medicine-University of North Carolina at Chapel Hill

 Chapel Hill, NC

6/90-6/92 Attending Physician

 Allergy Consultation Service

 National Institutes of Health, Bethesda, MD

7/87-6/92 Medical Staff Fellow

 Allergic Diseases Section, Laboratory of Clinical Investigation

 National Institute of Allergy & Infectious Diseases

 National Institutes of Health, Bethesda, MD

7/88-6/89 Chief Medical Staff Fellow

 National Institute of Allergy & Infectious Diseases

 National Institutes of Health, Bethesda, MD

7/86-7/87 Chief Resident of Pediatrics

Department of Pediatrics, West Virginia University Medical Center

 Morgantown, WV

**Honors:**

President, American Academy of Allergy, Asthma and Immunology, 2017-2018

(Presidential Track Offices: Secretary/Treasurer, 2015-2016, President-Elect, 2016-2017, President, 2017-2018, Past President, 2018-2019)

Academic Awards:

 Beta Beta Beta (Biology Honor Society at West Virginia University), 1978

 Alpha Epsilon Delta (Pre-Medical Honor Society at West Virginia University), 1978

 Norman Award (WVU Undergraduate Research Award in Biology), 1980

 Distinguished Alumnus of the West Virginia University School of Medicine, 2014

Scientific Awards:

Member, American Pediatric Society, 2017-date

2nd place presentation: Allergy and Immunology Section of the Southern Medical Association Meeting, 1989.

 Clifford W. Perry Award from the American Lung Association of North Carolina, 1996

 Elected to the Society for Pediatric Research, 1996

2007 Jerry Dolovich Memorial Lectureship of the American Academy of Allergy, Asthma and Immunology

AAAAI Foundation and I Leonard Bernstein MD Memorial Lectureship of the American Academy of Allergy, Asthma and Immunology, 2018

World Allergy Organization Special Recognition Award, 2018

Clinical Awards:

 Best Doctors listing for Allergy and Immunology, 2007-date

 US News and World Report Top Doctors for Allergy and Immunology, 2012-date

**Bibliography:**

H Factor: 40

Books and Chapters (in reverse chronological order):

1. Peden DB. Chapter 4, Air Pollution and Asthma, in: Air Pollution and Health Effects, Eds: Nadadur S and Hollingsworth J, Springer-Verlag (London), 2015
2. Hernandez ML and Peden DB. Chapter 30, Air Pollution: Indoor and Outdoor in: Allergy: Principles and Practice, 8th Edition, Eds: Adkinson NF, Bochner B, Burks AW, Busse WW, Holgate ST, Lemanske R, O'Hehir R, Elsevier (Saunders) (Philadelphia), 2014
3. Stewart GA, Peden DB, Thompson PJ and Ludwig M. Allergens and Air Pollutants. Chapter 4 in Allergy. Holgate ST, Church MK, Broide DH and Martinez FD. 2012, Elsevier (London)

1. Dillon MA and Peden DB. Health Effects of Environmental Exposures while in Automobiles. Chapter 10 in Environmental and Occupational Lung Disease. Tarlo S, Cullinan P, Nemery B, 2010 John Wiley and Sons.
2. Peden D. Indoor and Outdoor Air Pollution. Chapter 32 in Allergy: Principles and Practice, 7th Edition, Adkinson NF, Busse WW, Bochner B., Holgate S, Simons FES and Lemanske, RF (Eds) 2009 Elsevier (Philadelphia)
3. Peden DB. Genetic and Environmental Factors in Asthma. Chapter 3. IN Asthma Health & Society: A Public Health Perspective. Andrew Harver and Harry Kotses (Eds). In Press 2007, Springer (New York)
4. Stewart GA, Thompson PA, Peden D and Alexis N. Allergens and Pollutants Chapter 17. Allergy, Holgate ST, Church MJ, Lichtenstein LM (EDs), Mosby 2006
5. Peden, D. Development of Atopy in Children. in Lung Development, Aging and the Environment, Harding R, Pinkerton K, Hooper S, Plopper C (eds) 2004 Academic Press (San Diego)
6. Peden D. Indoor and Outdoor Air Pollution. Chapter 32 in Allergy: Principles and Practice, Middleton E, Reed CE, Ellis EF, Adkinson NF, Yunginger JW , Busse WW, Bochner B., Holgate S (Eds) 2003 Harcourt (Philadelphia)
7. Peden D. Indoor and Outdoor Air Pollution. Update series of Allergy: Principles and Practice, Update Edition Middleton E, Reed CE, Ellis EF, Adkinson NF, Yunginger JW, Busse WW, Bochner B., Holgate S. (Eds) 5/2001 Mosby (St. Louis)
8. Peden D. Allergic Rhinitis. IN Essence of Office Pediatrics. Stockman J, Lohr JA Eds 2000 Saunders (Philadelphia)
9. Peden D. Contributor, CRC Desk Reference for Allergy and Asthma. Simon HU (Ed) CRC press (Boca Raton) 2000
10. Peden, DB. Air Pollution and Asthma. IN Environmental Asthma. R. Bush (Ed) (2000) Marcel Dekker, (New York)
11. Peden, DB and Boehlecke, B. Airborne contaminants and asthma: The effects of ozone, NO2, SO2, endotoxin and diesel exhaust particles on normal and asthmatic lungs. IN Asthma: Causes and Mechanisms of an Epidemic Inflammatory Disease. Platts-Mills TAE (Ed.), Lewis (Boca Raton) 1999
12. Folinsbee LJ and Peden DB. Air pollution and exercise-induced asthma (Chapter 12, pp 259-286). IN Exercise-Induced Asthma. McFadden R (Ed). , 1999 Marcel Dekker, (New York)
13. Peden DB. Controlled exposures of asthmatics to air pollutants (Chapter 37, pp. 865-880) IN Air Pollution and Health. Holgate S, Koren H, and Samet J (Eds), 1999 Academic Press (London)
14. Peden, DB. Effect of air pollution in asthma and exercise. IN Allergic Disease in Sports Medicine. Weiler J.M. (Ed) 1997, Marcel Dekker, New York
15. Peden DB. Bronchial asthma: pediatric. IN Patient care guidelines for nurse practitioners, p 167-173, Hoole AJ, Pickard CG, Jr, Ouimette RM, Lohr JA and Greenberg RA (Eds) 1995, J.B. Lippincott, Philadelphia
16. Peden DB. Allergic rhinitis: pediatric and adult. IN Patient care guidelines for nurse practitioners, p 143-146, Hoole AJ, Pickard CG, Jr, Ouimette RM, Lohr JA and Greenberg RA (Eds) 1995, J.B. Lippincott, Philadelphia
17. Van Dyke K, Van Dyke C, **Peden D**, and Matamoros M: Preliminary events leading to the production of luminol dependent chemiluminescence by human granulocytes. In Bioluminescence and chemiluminescence-basic chemistry and analytical application, Academic Press, 45-53, 1981.
18. Castranova V, Jones GS, Phillips RM, **Peden D**, and Van Dyke K: Defects associated with the transmembrane potential granulocytes in chronic granulomatous disease. In Bioluminescence and chemiluminescence-basic chemistry and analytical application, Academic Press, 327-333, 1981.
19. **Peden D**, Van Dyke Ch, Van Dyke C, Van Dyke K, Castranova V, Jones G, and Ringrose M: Arachidonate-based chemiluminescence in human granulocytes and platelets using the Monolight 301 (drug studies). In Bioluminescence and chemiluminescence-basic chemistry and analytical application, Academic Press, 385-390, 1981

Refereed papers/articles/reviews (in reverse chronological order):

* + - 1. Stevens E, Rosser F, Forno E, **Peden D**, Celedón JC. Can the effects of outdoor air pollution on asthma be mitigated? In Press, J Allergy Clin Immunol. 2019
			2. Zhang XA, Yates A, Vasilevsky A, Gourdine JP, Carmody LC, Danis D; Joachimiak MP, Ravanmehr V, Pfaff ER; Champion J, Robasky K, Xu H, Fecho K, Walton NA, Zhu R, Ramsdill J, Mungall C, Kohler S, Haendel MA, McDonald C, Vreeman DJ, **Peden DB**, Chute CG, Robinson P. Semantic Integration of Clinical Laboratory Tests from Electronic Health Records for Deep Phenotyping and Biomarker Discovery. In Press, npj Digital Medicine, 2019
			3. Fecho K, Pfaff E, Xu H, Champion J, Cox S, Stillwell L, Bizon C, **Peden DB**, Krishnamurthy A, Tropsha A, Ahalt SC. A Novel Approach for Exposing and Sharing Clinical Data: the Translator Integrated Clinical and Environmental Exposures Service. In Press, Journal of the American Medical Informatics Association, 2019
			4. Brooks JL, Berry DC, Currin EG, Ledford A, Knafl, GJ, Fredrickson BL, Beeber LS, HAPPI Community Partnership Committee, **Peden DB**, Corbie-Smith GM. A Community-Engaged Approach to Investigate Cardiovascular-Associated Inflammation among American Indian Women: A Research Protocol. In Press, Research in Nursing & Health 2019
			5. Burbank A, Vadlamundi A, Mills K, Alt E, Zhou H, Hernandez M, **Peden D**. Glutathione-S-Transferase mu-1 null genotype and risk for wood smoke-induced airway inflammation. J Allergy Clin Immunol. 2019 Feb 18. pii: S0091-6749(19)30252-0. doi: 10.1016/j.jaci.2019.02.006
			6. Henderson AG, Anderson WH, Ceppe A, Coakley RD, Button B, Alexis NE, **Peden DB**, Lazarowski ER, Davis CW, Fuller F, Almond M, Qaqish B, Kesimer M, Boucher RC. Mucus Hydration in Subjects with Stable Chronic Bronchitis: A Comparison of Spontaneous and Induced Sputum. COPD. 2019 Feb 4:1-9. doi: 10.1080/15412555.2019.1566892. [Epub ahead of print]
			7. Sood AK, Burbank AJ, Duran CG, Enders K, Zhou H, **Peden DB**, Hernandez ML. Gamma tocopherol effect on LPS-induced sputum neutrophilia is not modified by BMI or *GSTM1* genotype. J Allergy Clin Immunol. 2019 Jan 17. pii: S0091-6749(19)30031-4. doi: 10.1016/j.jaci.2018.12.1009.
			8. Agache I, Miller R, Gern JE, Hellings PW, Jutel M, Muraro A, Phipatanakul W, Quirce S, **Peden D**. Emerging concepts and challenges in implementing the exposome paradigm in allergic diseases and asthma. Allergy. 2018 Dec 4. doi: 10.1111/all.13690
			9. **Peden DB**. The unexpected effects of air pollution. N C Med J. 2018 Sep-Oct;79(5):309-311. doi: 10.18043/ncm.79.5.309.
			10. Lyerly HK, **Peden DB**. The Unexpected Health Effects of Air Pollution. N C Med J. 2018 Sep-Oct;79(5):302-305. doi: 10.18043/ncm.79.5.302.
			11. Sánchez-Borges M, Martin BL, Muraro AM, Wood RA, Agache IO, Ansotegui IJ, Casale TB, Fleisher TA, Hellings PW, Papadopoulos NG, **Peden DB**, Sublett JL, Tilles SA, Rosenwasser L. The importance of allergic disease in public health: an iCAALL statement. World Allergy Organ J. 2018 Apr 27;11(1):8. doi: 10.1186/s40413-018-0187-2. eCollection 2018. No abstract available. PMID: 29743965 PMCID: PMC5921992
			12. Burbank AJ, **Peden DB**. Assessing the impact of air pollution on childhood asthma morbidity: how, when, and what to do. Curr Opin Allergy Clin Immunol. 2018 Apr;18(2):124-131. doi: 10.1097/ACI.0000000000000422.
			13. Immormino R, Lauzier C, Nakano H, Hernandez M, Alexis N, Ghio A, Tilley S, Doerschuk C, **Peden D**, Cook DN and Moran T. Neuropilin-2 regulates airway inflammatory responses to inhaled lipopolysaccharide. Am J Physiol Lung Cell Mol Physiol. 2018 Aug 1;315(2):L202-L211. doi: 10.1152/ajplung.00067.2018. Epub 2018 Apr 19.
			14. **Peden DB**. Impact of Pollution on Allergy/Immunology. J Allergy Clin Immunol. 2018 Feb 1. pii: S0091-6749(18)30141-6. doi: 10.1016/j.jaci.2018.01.017
			15. Hauptman M, **Peden D**, Phipatanakul W. Environmental Control: The First Tenet of Allergy. J Allergy Clin Immunol Pract 2018;6:36-7. 2213-2198
			16. Sheehan WJ, Gaffin JM, **Peden DB**, Busk RK, Phitpatanakul W. Advances in Environmental and Occupational Disorders 2016. J Allergy Clin Immunol. 2017 Oct 25. pii: S0091-6749(17)31655-X. doi: 10.1016/j.jaci.2017.09.032. [Epub ahead of print]
			17. Burbank AJ, Duran CG, Pan Y, Burns P, Jones S, Jiang Q, Yang C, Jenkins S, Wells H, Alexis N, Kesimer M, Bennett WD, Zhou H, **Peden DB\***, Hernandez ML\* (\*= co-senior authors). Gamma tocopherol reduces sputum eosinophilia and endotoxin-induced sputum neutrophilia in volunteers with asthma. J Allergy Clin Immunol. 2017 Jul 20. pii: S0091-6749(17)31110-7. doi:10.1016/j.jaci.2017.06.029.
			18. Burbank A, Sood A, Kesic MJ, **Peden DB**, Hernandez ML. Environmental determinants of allergy and asthma. J Allergy Clin Immunol. 2017 Jul;140(1):1-12. doi: 10.1016/j.jaci.2017.05.010.
			19. Burbank AJ, Duran CG, Almond M, Jiang Q, Yang C, Wang T, Zhou H, Hernandez ML, **Peden DB**. A short course of gamma-tocopherol mitigates LPS-induced inflammatory responses in humans *ex vivo.* J Allergy Clin Immunol. 2017 May 12. pii: S0091-6749(17)30754-6. doi: 10.1016/j.jaci.2017.04.030.
			20. Alexis NE, Bennett WD, **Peden D**. Hypertonic Saline Inhalation is Safe Following Inhaled Provocation Challenges in Asthmatics and Provides Enhanced Mucociliary Clearance. J Asthma. 2017 Jan 17:0. doi: 10.1080/02770903.2016.1278019.
			21. High M, Hye-Youn Cho HY, Marzec J, Wiltshire T, Verhein KC, Caballero MT, Acosta PL, Ciencewicki J, McCaw ZR, Kobzik L, Miller-DeGraff L, Gladwell W, **Peden DB**, Serra ME, Shi M, Weinberg C, Suzuki O, Wang X, Bell DA, Polack FP, Kleeberger SR. Determinants of host susceptibility to murine respiratory syncytial virus (RSV) disease identify a role for the innate immunity scavenger receptor MARCO gene in human infants. EBioMedicine. 2016 Sep;11:73-84. doi: 10.1016/j.ebiom.2016.08.011. PubMed [journal] PMID: 27554839,PMCID: PMC5049919
			22. Burbank, AJ; Grabich, SC; Todoric, K; Frye, M; Loughlin, CE; Duncan, K; Robinette C; Mills, K; **Peden, DB**; Diaz-Sanchez, D, Hernandez ML. Impact of Aeroallergen Sensitization on Asthma Control in African-American Teens with Persistent Asthma. Ann Allergy Asthma Immunol. 2016 Oct;117(4):442-444. doi: 10.1016/j.anai.2016.07.041.
			23. Duran CG, Burbank AJ, Mills KH, Duckworth HR, Aleman MM, Kesic MJ, **Peden DB**, Pan Y, Zhou H, Hernandez ML. A proof of concept clinical study examining the NRF2 activator sulforaphane against neutrophilic airway inflammation. Respir Res. 2016 Jul 22;17(1):89. doi: 10.1186/s12931-016-0406-8. PubMed [journal] PMID: 27450419, PMCID: PMC4957339
			24. Farooqui N, **Peden D**. Occupational Asthma. J Allergy Clin Immunol Pract. 2016 Jul-Aug;4(4):783-4. doi: 10.1016/j.jaip.2015.12.009.
			25. Kobernick AK, **Peden DB**, Zhou H, Zhou Q, Dillon MA, Alexis NE. Reproducibility of the inflammatory response to inhaled endotoxin in healthy volunteers. The Journal of allergy and clinical immunology. 2016; 138(4):1205-1207. NIHMSID: NIHMS785596 PubMed [journal] PMID: 27297997, PMCID: PMC5056796
			26. Dieffenderfer J, Goodell H, Mills S, McKnight M, Yao S, Lin F, Beppler E, Bent B, Misra V, Zhu Y, Oralkan O, Strohmaier J, Muth J, **Peden D**, and Bozkurt A. Low Power Wearable Systems for Continuous Monitoring of Environment and Health for Chronic Respiratory Disease. In Press, available on line, Journal of Biomedical and Health Informatics, 2016 doi: 10.1109/JBHI.2016.2573286
			27. **Peden DB** and Bush R. Advances in environmental and occupational disorders in 2014. J Allergy Clin Immunol. 2015 Oct;136(4):866-71. doi: 10.1016/j.jaci.2015.08.008.
			28. Kaminski KS, Beach CL, **Peden DB**, Le U, Roehrs PA. Successful use of palifermin following severe anaphylaxis to pegaspargase in a pediatric patient with acute lymphoblastic leukemia. J Oncol Pharm Pract. 2016,22 (2) 354-356
			29. Burbank AJ, Shah SN, Montgomery M, **Peden D**, Tarrant T, Weimer ET. Clinically focused exome sequencing identifies a homozygous mutation that confers DOCK8 deficiency. Pediatr Allergy Immunol. 2016 27(1) pp 96-98 PubMed [journal] PMID: 26235511, PMCID: PMC4724217
			30. Cascio WE, Gilmour MI, **Peden DB**. Ambient Air Pollution and Increases in Blood Pressure: Role for Biological Constituents of Particulate Matter. Hypertension. 2015 Jun 29. pii: HYPERTENSION AHA.115.05563. Invited Commentary
			31. Anderson WH, Coakley RD, Button B, Henderson AG, Zeman KL, Alexis NE, **Peden DB**, Lazarowski ER, Davis CW, Bailey S, Fuller F, Almond M, Qaqish B, Bordonali E, Rubinstein M, Bennett WD, Kesimer M, Boucher RC. The Relationship of Mucus Concentration (Hydration) to Mucus Osmotic Pressure and Transport in Chronic Bronchitis. Am J Respir Crit Care Med. 2015 Jul 15;192(2):182-90. doi: 10.1164/rccm.201412-2230OC. PubMed [journal] PMID: 25909230, PMCID: PMC4532825
			32. Aleman MM, Kesic MJ, Mills KH, **Peden DB**, Hernandez M, The IL-1 axis is associated with airway inflammation after O3 exposure in allergic asthmatics. J Allergy Clin Immunol. 2015 May 8. pii: S0091-6749(15)00486-8. doi: 10.1016/j.jaci.2015.03.035 PubMed [journal] PMID: 25959670, PMCID: PMC4600417
			33. Maile R, Jones S, Pan Y, Zhou H, Jaspers I, **Peden DB**\*, Cairns BA\*, Noah TL\* (\* denotes co-senior author). Association between early airway damage-associated molecular patterns and subsequent bacterial infection in patients with inhalational and burn injury. 2015 May 1;308(9):L855-60. doi: 10.1152/ajplung.00321.2014. PubMed [journal] PMID: 25770180, PMCID: PMC4421787
			34. **Peden DB**. Does air pollution really cause allergy?. Clin Exp Allergy. 2015 Jan;45 (1):3-5. doi: 10.1111/cea.12414. Invited commentary
			35. Yu J, Hernandez M, Li H, Goktep I, Robinette C, Auerbach A, **Peden D**, Ahmedna M. Allergenicity of Roasted Peanuts Treated with a Non-Human Digestive Protease. Food Research International, Volume 69, March 2015, Pages 341–347
			36. Todoric K, Zhou H, Zhang H, Mills K, **Peden D**, Hernandez M. BMI correlates with pollutant-induced interleukin-1 beta in sputum and blood. Ann Allergy Asthma Immunol. 2015 Mar;114(3):251-3. doi: 10.1016/j.anai.2014.11.010. Epub 2014 Dec 15.
			37. Wu W, Wages PA, Devlin R, Diaz-Sanchez D, **Peden DB**, Samet JM. Src-mediated EGF Receptor Activation Regulates Ozone-induced Interleukin 8 Expression in Human Bronchial Epithelial Cells. Environ Health Perspect. 2015 Mar;123(3):231-6. doi: 10.1289/ehp.1307379.
			38. Miller RL and **Peden DB**. Environmental impacts on immune responses in atopy and asthma. J Allergy Clin Immunol. 2014 Nov;134(5):1001-8. doi: 10.1016/j.jaci.2014.07.064. Epub 2014 Nov 5.
			39. Hernandez ML, Mills K, Almond M, Todoric K, Aleman MM, Zhang H, Zhou H, **Peden DB**. Interleukin-1 receptor antagonist reduces endotoxin-induced airway inflammation in healthy volunteers. J Allergy Clin Immunol. 2015 Feb;135(2):379-85. doi: 10.1016/j.jaci.2014.07.039.

* + - 1. Wagner JG, Harkema JR, Jiang Q, Hernandez M, and **Peden DB**. Two Faces of Vitamin E in the Lung (Correspondence), Am J Respir Crit Care Med. 2014 Oct 1;190(7):841-2
			2. Alexis NE, Huang T, Rappold A, Kehrl H, Devlin R, **Peden DB**. Asthmatics Demonstrate Airway inflammation Following Exposure to concentrated ambient particulate matter, Am J Respir Crit Care Med. 2014 Jul 15;190(2):235-7. doi: 10.1164/rccm.201401-0126LE
			3. Fry RC, Rager JE, Bauer, R, Sebastian E, **Peden DB**, Jaspers I, Alexis NE. Air toxics and epigenetic effects: Ozone altered microRNAs in the sputum of human subjects, Am J Physiol Lung Cell Mol Physiol. 2014 Jun 15;306(12):L1129-37. doi: 10.1152/ajplung.00348.2013. Epub 2014 Apr 25.
			4. Wu W, Muller R, Berhane K, Fruin S, Liu F, Jaspers I, Diaz-Sanchez D, **Peden DB**, McConnell R. Inflammatory Response of Monocytes to Ambient Particles Varies by Highway Proximity, Am J Respir Cell Mol Biol. 2014 Dec;51(6):802-9. doi: 10.1165/rcmb.2013-0265OC.
			5. **Peden DB** and Bush R. Advances in environmental and occupational disorders in 2013. J Allergy Clin Immunol. 2014 May;133(5):1265-9. doi: 10.1016/j.jaci.2014.02.027
			6. Mills K, Lay J, Wu W, Robinette C, Kesic MJ, **Peden DB**, Hernandez M. Vitamin E, gamma tocopherol, diminishes ex vivo basophil response to dust mite allergen, Allergy 2014; 69: 541–544.
			7. Bennett WD, Alexis NE, Almond M, Herbst M, Zeman KL, **Peden DB**. Effect of Inhaled Endotoxin on Mucociliary Clearance and Airway Inflammation in Smokers and Non-Smokers, J Aerosol Med Pulm Drug Deliv. 2014 Feb 25. [Epub ahead of print]
			8. Wagner JG, Birmingham NP, Jackson-Humbles D, Jiang Q, Harkema JR, and **Peden DB**. Supplementation with γ-Tocopherol Reduces Endotoxin-Induced Airway Inflammatory and Mucous Cell Responses in Rats. Free Radic Biol Med. 2014 Mar; 68:101-9. doi: 10.1016/j.freeradbiomed.2013.11.024
			9. Jones S, Zhou H, Herbst M, Pujols-Ortiz S, Maile R, Joyner BL, Zhang H, Kesic M, Jaspers I, Short K, , Meyer A, **Peden DB**, Cairns BA, Noah TL. Bronchoscopy-derived correlates of acute lung injury following inhalational injuries: A prospective observational study. PLoS One. 2013 May 17;8(5):e64250. doi: 10.1371/journal.pone.0064250.

* + - 1. Geiser M, Lay JC, Bennett WD, Zhou H, Wang X, **Peden DB**, Alexis NE. Effects of ex vivo Gamma Tocopherol on Airway Macrophage Function in Healthy and Mild Allergic Asthmatics, J Innate Immun. 2013;5(6):613-24. doi: 10.1159/000350234
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Submitted papers/articles (in reverse chronological order):

* + - 1. Alexis NE, Smeester L, Fry R, **Peden DB**. Baseline Gene Expression of Sputum Cells Defines the Neutrophil Response to Inhaled LPS in Humans. Submitted, 6/2018

Abstracts (Since 1996):

1. Burbank AJ, Hernandez ML, Mills KH, Alexis NE, **Peden DB**. Impact of GSTM1 Genotype on Airway Response to Inhaled Wood Smoke Particles Abstract 90, Presented at the Annual Meeting of the American Academy of Allergy, Asthma and Immunology, March 3, 2018, Orlando, FL.
2. Hernandez ML, Dhingra R, Burbank AJ, Todoric K, Loughlin C, Frye M, Duncan KE, Robinette C, Mills KH, Devlin R, **Peden DB**, Diaz-Sanchez D. Impact of asthma control on susceptibility to ambient air pollution among African American teens with asthma. Abstract 311, Presented at the Annual Meeting of the American Academy of Allergy, Asthma and Immunology, March 3, 2018, Orlando, FL.
3. Moran TP, Immormino RM, Nakano H, Hernandez ML, **Peden DB**, Cook D. Neuropilin-2 is a negative regulator of allergic airway inflammation. Abstract 568, Presented at the Annual Meeting of the American Academy of Allergy, Asthma and Immunology, March 3, 2018, Orlando, FL.
4. Alexis NE, Zhou Q, **Peden D**, Zhou H. Stability of baseline measures of sputum cell counts in healthy individuals over 12 months: Practical implications for Study design. Abstract P196 presented at the American Thoracic Society International Conference, May 21, 2017, Washington, DC
5. Hernandez ML, Burbank A, Alexis NE, Duran CG, Bennett WD, Jiang Q, Wang T, Zhou H, **Peden D**. Gamma tocopherol (Vitamin E) reduces acute airway neutrophilia in mild asthmatics. Abstract 611, presented at the American Thoracic Society International Conference, May 22, 2017, Washington, DC
6. Bennett WD, Wu J, Lay JC, Burns PE, Jones SK, Almond M, Burbank A, Hernandez ML, **Peden D**. Vitamin E prevents the slowing of mucociliary clearance associated with inhaled endotoxin challenge in mild asthmatics. Abstract 622, presented at the American Thoracic Society International Conference, May 22, 2017, Washington, DC
7. N.E. Alexis, H.B. Wells, S. Miller, B. Goldstein, Y. Saini, S., Donaldson, **D. Peden**. Sputum Macrophage Profiles in Healthy Individuals, Airway Disease, Tobacco Smokers and Alternative Tobacco Users. Abstract 4347 presented at the American Thoracic Society International Conference, May 16, 2016, San Francisco, CA
8. Chervinskiy SK, Smeester L, Kulis MD, **Peden DB**, Vickery, BP, Fry, RC. Glutathione S-Transferase Mu 1 (GSTM1) Gene Associated with Allergic Rhinitis in a Food Allergy Cohort J.Allergy Clin Immunol Meeting Abstract: 32 Volume: 135 Issue: 2 Pages: AB10-AB10 Supplement: S Published: FEB 2015 Conference Title: Annual Meeting of the American-Academy-of-Allergy-Asthma-and-Immunology (AAAAI) Conference Date: FEB 20-24, 2015 Houston, TX
9. Hernandez ML, Todoric K, Mills K, Zhou HB, **Peden DB**. Impact Of BMI On Ozone-Induced IL-1 beta In The Airways Of Human Volunteers. J.Allergy Clin Immunol Meeting Abstract: 802 Volume: 133 Issue: 2 Pages: AB232-AB232 Supplement: S Published: FEB 2014 Annual Meeting of the American-Academy-of-Allergy-Asthma-and-Immunology (AAAAI) FEB 28-MAR 04, 2014, San Diego, CA
10. Todoric K, Hernandez ML, Zhou HB, **Peden DB**. Impact Of Energy Expenditure On Ozone-Induced Inflammation. J.Allergy Clin Immunol, Meeting Abstract: 342 Volume: 133 Issue: 2 Pages: AB99-AB99 Supplement: S Published: FEB 2014 Conference Title: Annual Meeting of the American-Academy-of-Allergy-Asthma-and-Immunology (AAAAI), FEB 28-MAR 04, 2014, San Diego, CA
11. Bennett WD, Herbst M, Almond M, Zeman KL, Wu J, Duckworth H, Hernandez M, **Peden DB**. EFFECT OF INHALED ENDOTOXIN (LPS) ON REGIONAL PARTICLE DEPOSITION AND MUCOCILIARY CLEARANCE IN HEALTHY NONSMOKERS, SMOKERS, AND MILD ASTHMATICS. JOURNAL OF AEROSOL MEDICINE AND PULMONARY DRUG DELIVERY Volume: 26 Issue: 2 Pages: A60-A60 APR 2013
12. Ferris M, Alexander T, Iglesia E, Duncan D, **Peden D**, Sheikh S, Park Y.

Severe DRESS syndrome managed with therapeutic plasma exchange, PEDIATRIC NEPHROLOGY Meeting Abstract: 14 Volume: 28 Issue: 1 Pages: 173-173 Published: JAN 2013

1. William D. Bennett, M Herbst, M Almond, K L. Zeman, J Wu, M Hernandez, and **D B. Peden**. Effect Of Inhaled Endotoxin On Regional Particle Deposition And Mucociliary Clearance In Healthy Nonsmokers, Smokers, And Mild Asthmatics. Am. J. Respir. Crit. Care Med. 185: A1302 2012 American Thoracic Society International Conference, San Francisco, CA
2. Kelly E. Duncan, Lisa A. Dailey, Johnny L. Carson, Michelle L. Hernandez, **David B. Peden**, and Robert Devlin. Cultured Basal Airway Epithelial Cells From Asthmatics Display Baseline Gene Expression Profiles That Differ From Normal Healthy Cells And Exhibit Differential Responses To Ambient Air Pollution Particles. Am. J. Respir. Crit. Care Med. 185: A4291. 2012 American Thoracic Society International Conference, San Francisco, CA
3. A. R. Auerbach, W. Wu, **D. Peden**, M. Hernandez. Endotoxin Challenge Increases Production of IL-1β in the Peripheral Blood but not in Sputum of Allergic Asthmatics. Presented at the 2012 meeting of the American Academy of Allergy, Asthma and Immunology, Orlando, FL, March 2012.
4. R. Fry, H. Zhou, B. Zou, J. Rager, J. Brickey, J. Ting, **D. Peden**, N. Alexis. Inflammatory Gene Expression Differentiates With Airway Neutrophil Response To Ozone. Presented at the 2012 meeting of the American Academy of Allergy, Asthma and Immunology, Orlando, FL, March 2012.
5. Hernandez ML, Alexis NE, Lay JC, Zhou H, Jiang Q, **Peden DB**. Vitamin E Reduces Airway Granulocyte Recruitment after Inhaled Endotoxin Challenge in Normal Volunteers. Presented at the 2012 meeting of the American Academy of Allergy, Asthma and Immunology, Orlando, FL, March 2012.
6. R.N. Bauer, L. Brighton, J.P. Ting, **D. Peden,** I. Jaspers. Influenza-Induced Expression Of Inflammasome Components Is Enhanced In The Asthmatic Airway Epithelium. 2011 American Thoracic Society International Conference, Denver, CO
7. S. Jones, M. Kesic, M. Sanders, I. Jaspers, B. Joyner, S. Ortiz-Pujols, K. Short, A. Meyer, B. Cairns**, D. Peden**, T.L. Noah. Bacterial Infection And Airway Inflammation In Acute Inhalational Injury, 2011 American Thoracic Society International Conference, Denver, CO
8. W. Wu, **D. Peden**, R. McConnell, L. Dailey, W. Zhang, M. Jardim, M. Kesic, A. Eiguren-Fernandez, S. Fruin, D. Diaz-Sanchez. Modulation Of Pro-Inflammatory Mediator Expression By GSTM11 In Diesel Exhaust Particle-Treated Normal Human Bronchial Epithelial Cells. 2011 American Thoracic Society International Conference, Denver, CO
9. Doreswamy V, Alexis N, **Peden DB**. [Nasal Response to Repeated Challenge with Endotoxin in Healthy Volunteers](http://apps.isiknowledge.com/full_record.do?product=WOS&search_mode=Refine&qid=2&SID=1CKjMjNK4CAcoNF5kIg&page=1&doc=1). 2010 Annual Meeting AAAAI. J Allergy Clin Immunol 125(2)   Pages: AB127-AB127   Supplement: Suppl. 1   Published: FEB 2010
10. Kwan M, Allen IC, Brickey WJ, **Peden DB**, Ting JP. [The Nlrp3 Inflammasome Affects Airway Inflammation, IgE/IL-13 Production And Mast Cell Function In A Subchronic Model Of Asthma](http://apps.isiknowledge.com/full_record.do?product=WOS&search_mode=Refine&qid=2&SID=1CKjMjNK4CAcoNF5kIg&page=1&doc=2) 2010 Annual Meeting AAAAI. J Allergy Clin Immunol 125(2)Pages: AB237-AB237 Supplement: Suppl. 1   Published: FEB 2010
11. N.E. Alexis, H. Zhou, J.C. Lay, R. Devlin, S. Kleeberger, **D.B. Peden**. [GSTM1(null) Has No Effect on the FEV1 Response to Acute Ozone Exposure but Significantly Affects the Proportion of Inflammatory Cells in the Airways of Allergic and Non Allergic Individuals](http://apps.isiknowledge.com/full_record.do?product=UA&search_mode=Refine&qid=2&SID=2A92cdC@eNK4D2BpJPp&page=1&doc=1&colname=WOS&cacheurlFromRightClick=no) J Allergy Clin Immunol Vol 123 (2) pp: S139-S139, 2009
12. M.L. Chou, M.L. Hernandez, W. Wu, **D. Peden**. [Gamma And Alpha-Carboxyethylhydroxychromane Inhibit Basophil Degranulation After Stimulation With DerF1](http://apps.isiknowledge.com/full_record.do?product=UA&search_mode=Refine&qid=2&SID=2A92cdC@eNK4D2BpJPp&page=1&doc=2&colname=WOS&cacheurlFromRightClick=no) J Allergy Clin Immunol Vol 123 (2)  pp: S197-S197, 2009
13. M. Kwan, J. Wiser, W.J. Brickey, N.E. Alexis, C. Robinette, R.A. Roubey, J.P.Y. Ting, **D.B. Peden.** [Gamma-tocopherol Treatment Alters Expression of Cytokine and Major Histocompatibility Molecules](http://apps.isiknowledge.com/full_record.do?product=UA&search_mode=Refine&qid=2&SID=2A92cdC@eNK4D2BpJPp&page=1&doc=3&colname=WOS&cacheurlFromRightClick=no) J Allergy Clin Immunol Vol 123 (2)  pp: S201-S201, 2009
14. Jiang Q, Moreland M, Ames B, Illek B, Wagner J, **Peden DB** (2008) Vitamin E forms inhibited IL-13 induced eotaxin secretion by blocking stat6 activation in human lung epithelial A549 cells. *(Experimental Biology 2008)*
15. Illek B, Fischer H, Streich-Tilles T, Cheng A, Ames BN, Jiang Q, **Peden DB** (2007) Duox1-medated release of hydrogenperoxide is modified by vitamin C. *Resp Crit Care Med* 175, A126. *(American Thoracic Society 2007, poster presentation)*
16. Schwarzer C, Kim EJ, Fischer H, Gruenert DC, Ames BN, **Peden DB**, Machen TE, Illek B (2007) Dual effects of pyocyanin-induced oxidative stress on CFTR chloride transport. *Ped Pulmonol* suppl 30, 251. *(North American Cystic Fibrosis Concerence 2007, oral presentation)*
17. Wu W, Alexis NE, Bromberg P, **Peden DB**. Involvement of Toll-like Receptor 4 and MAPK Pathways in LPS-induced CD40 Expression of Monocytes. 2006 International Conference of the American Thoracic Society, San Diego, CA.
18. Wu W, Alexis N, Dimeo F, Almond M, Bromberg PA, **Peden DB**. Cell-cell Contact Plays a Major Role in the Inhibitory Effect of Neutrophils on Monocyte Functions. 2006 International Conference of the American Thoracic Society, San Diego, CA
19. N. Alexis, JC. Lay, K. Zeman, **Peden, DB**, W. Bennett. Particle Uptake by Airway Macrophages is Enhanced in Asthmatics *In Vivo*: Use of Radiolabeled Aerosol Inhalation Delivery and Induced Sputum Techniques. 2006 International Conference of the American Thoracic Society, San Diego, CA
20. J.G. Wagner, PhD, J.R. Harkema, DVM, PhD, D. Patel, MD PhD, **D.B. Peden**, MD **Treatment with -Tocopherol Protects from Ozone-Induced Exacerbation of Allergic Airway Responses in Brown Norway Rats.** 2006 International Conference of the American Thoracic Society, San Diego, CA
21. G.S. Backus, A.K. Bauer, H.-Y. Cho, **D.B. Peden,** S.R. Kleeberger. **Protective Role of IL-10 in Ozone-Induced Inflammation.** 2006 International Conference of the American Thoracic Society, San Diego, CA
22. K. Yeatts, PhD, E. Svendsen, PhD, J. Creason, PhD, R. Williams, BS, N. Alexis, PhD, P. Herbst, MS, L. Neas, PhD, B. Devlin, PhD, W. Cascio, MD, **D. Peden, MD**. **Ambient Coarse Particulate Matter Associated with Heart RateVariability, Blood Coagulation, and Blood Lipids in Adult Asthmatics.** 2006 International Conference of the American Thoracic Society, San Diego, CA
23. B. Illek, Ph.D., E.J. Kim, Ph.D., H. Fischer, Ph.D., Q. Jiang, Ph.D., B. Ames, Ph.D., **D. Peden, M.D.** Vitamin C and Other Antioxidants Support CFTR Cl Transport in Airways,. 2006 International Conference of the American Thoracic Society, San Diego, CA
24. N E Alexis, John C Lay, **David B Peden**. Low Dose Inhaled Endotoxin Induces Elevated Neutrophils in the Airways of Asthmatics, A Response not Observed in Normals. Submitted for presentation, Meeting of the American Academy of Allergy, Asthma and Immunology Miami Beach, Fl, 2006

1. N E Alexis, M Almond, **D B Peden**. Body Mass Index (BMI) in Asthmatics is Associated with Airway Neutrophil Response to Inhaled Endotoxin: A role for Atopic Inflammation. JACI, 2005. Submitted for presentation, Meeting of the American Academy of Allergy, Asthma and Immunology Miami Beach, Fl, 2006
2. Esch R, Bush RK, **Peden D,** Lockey RF. Sublingual-oral administration of standardized allergenic extracts/vaccines: Safety and dosing studies Meeting of the American Academy of Allergy, Asthma and Immunology Miami Beach, Fl, 2006
3. Yeatts K, Svendsen E, Creason J, Williams R, Alexis N, Bromberg P, Neas L, **Peden**, **D** Ambient Course Particles Associated with Change in Hemataologic Factors in Adult Asthmatics. Presented at the 2005 Annual Meeting of the International Society of Environmental Epidemiology, South Africa
4. Relationship Between Induced Oxidant Generation and Asthma Severity. Yeatts K, Svendsen E, Heidenfelder B, Williams A, Inmon J, Devlin B, Neas L, **Peden D**, Gallagher J. Abstract Accepted, 2005 International Conference of the American Thoracic Society. Am J Respir. Crit Care Med.
5. Yeatts K, Svendsen E, Alexis N, Reed W, Harder S, Lay J, Bromberg P, Neas L, Devlin R, **Peden D**. CD11b expression in the airway is associated with asthma severity, airway inflammation, and reduced percentage of CD54-positive blood lymphocytes in asthmatics. Abstract Accepted, 2005 International Conference of the American Thoracic Society. Am J Respir. Crit Care Med.
6. Yeatts KB, Svendsen E, Alexis N, Williams R, Creason J, Reed W, Harder S, Bromberg P, Neas L, Devlin R, **Peden DB**. Fine particulate matter associated with airway neutrophilia in a subpopulation of adult asthmatics. Abstract Accepted, 2005 International Conference of the American Thoracic Society. Am J Respir. Crit Care Med.
7. Alexis NE, Almond M, Dimeo F, **Peden DB**. Effect of Escalating Doses of LPS on Markers of Airways Inflammation and Innate Immunity in Healthy Volunteers. Accepted abstract, Annual Meeting of the American Academy of Allergy, Asthma and Immunology 3/2003, Denver, Colorado

1. N. Alexis, **D. Peden**. IL-4 Induces an Enhanced IL-6 Response and Signs of Allergic-Type Inflammation in the Nasal Airways of Non-Allergic, Non-Asthmatic Individuals. Abstract, 2nd Annual Meeting of The Federation of Clinical Immunology Societies, June, 2002
2. N. Alexis**, D. Peden**.Inducible Tachyphylaxis to Inhaled LPS in Healthy Volunteers. Submitted Abstract, 1st Annual Meeting of The Federation of Clinical Immunology Societies, May 2001
3. Eldridge M, Alexis N, Arnold R, **Peden, D**. Inhaled endotoxin induces a monocyte dependant peripheral blood granulocyte activation in atopic asthmatics. Abstract 2000 International Conference of the American Thoracic Society. Am J Respir. Crit Care Med. A844, 161 (3) 2000.
4. Eldridge, M and **Peden D**. Allergen provocation augments endotoxin-Induced nasal inflammation in atopic asthmatics. 2000 Meeting of the American Academy of Allergy, Asthma and Immunology.
5. Tucker K, Boehlecke B, **Peden D**. Effect of nasal endotoxin on eosinophil influx in allergic subjects Abstract, J Allergy and Clin Immunol. 1999 AAAAI meeting.
6. **Peden D**, Boehlecke B, Horstman D, Devlin RB. Effect of acute prolonged ozone exposure on inflammatory mediators in allergic asthmatics. Abstract, Am J. Respir. Crit Care Med 1997
7. **Peden D.** Boehlecke B, Horstman D, Devlin RB. Ozone induces eosinophil influx into the bronchial airways of mite-sensitive asthmatics. Abstract, J. Allergy Clin Immunol 1997
8. **Peden, D**, Boehlecke B, Horstman D, RB Devlin. Influx of Bronchial neutrophils and eosinophils in asthmatics after exposure to 0.16 ppm ozone. Am J Respir. Crit Care Med. 153, A700, 1996
9. **Peden, D**, Wortman, I, Dailey L. Epithelial inhibition of mast cell activity, J. Allergy Clin Immunol. 97, 265 (A332), 1996

**Teaching record:**

**Current Recurring Lectures:**

1. Lectures for Allergy fellows: Asthma, Sinusitis, Immunodeficiency, Food Allergy, Drug Allergy (annually)
2. Graduate Course lecture: “Susceptible Populations” & “Air Pollution and Asthma” lectures in the Envr 732 course “Health effects of air pollution” in the School of Public Health (annually).

**UNC & AHEC Grand Rounds (1996-Present):**

1. Peden DB. Air Pollution and Asthma. Mountain AHEC, Asheville, NC, 3/9/13
2. Peden DB. “Air Pollution and Asthma” UNC Department of Pediatrics, UNC CH 9/27/12
3. Peden DB. “Acetaminophen and Asthma. Pediatrics Grand Rounds at Moses Cone Hospital, 6/6/2012
4. Peden DB. “Acetaminophen and Asthma” Pediatrics Grand Rounds, Wake AHEC, 3/21/12
5. Peden DB "Translational studies of innate and IgE mediated airway inflammation in asthma" Department Seminar, Department of Microbiology and Immunology, UNC CH 3/31/08
6. Peden, D. “Air Pollution and Asthma”. AHEC Grand Rounds Presentation, Department of Pediatrics Moses Cone Hospital, Greensboro, NC 11/10/04
7. Peden D. “Asthma Update and New Therapies” AHEC Grand Rounds, Department of Pediatrics. New Hanover Regional Hospital, Wilmington, NC, 11/02/04
8. Peden, D. and Donohue, J .“New Developments in Adult and Pediatric Asthma” Combined Medicine/Pediatrics Grand Rounds UNC School of Medicine

Chapel Hill NC, April 3, 2003

1. Peden D, Asthma and Allergy Update: Chronic Control Therapy, AHEC Pediatric Grand Rounds, New Hanover Medical Center, Wilmington, NC, Feb 4, 2003
2. Peden, D. and Donohue, J. “New, Newer and Future Therapies for Asthma ”. Student Health Grand Rounds, UNC School of Medicine, Chapel Hill NC, March 20, 2002
3. Peden, D. and Donohue, J.“New, Newer and Future Therapies for Asthma ”. Combined Medicine/Pediatrics Grand Rounds , UNC School of Medicine, Chapel Hill NC, Nov 1, 2001
4. Peden, D., Overview of Asthma Disease/Update in Pediatric Asthma Management presented in “Respiratory Disease Update: Focus on COPD and Asthma” program School of Nursing Continuing Education Program William and Ida Friday Center Chapel Hill, NC, Oct 19, 2001
5. Peden, D., Asthma and Allergy Update: Chronic Controller Medication Pediatric Grand Rounds, WakeMed Raleigh, NC, Oct 17, 2001
6. Peden, D. Asthma and Allergy Update, Grand Rounds, Maria Parham Hospital, Henderson, NC, May 1, 2001
7. Peden, D. "Update on asthma and allergy" Student Health Service Grand Rounds, Chapel Hill, NC Feb 14, 2001
8. Peden, D. "Pediatric Asthma Program at UNC" Pediatric Grand Rounds-UNC School of Medicine, Chapel Hill, NC, November, 1999
9. Cross, A., Ingram, D., Gold, S., and Peden, D."Eosinophilia in a 14 year old boy", Pediatric Grand Rounds-UNC School of Medicine, Chapel Hill, NC, October, 1999
10. Peden, D. "Update in Management of Asthma & Allergy", Pediatric Grand Rounds Wake Medical Center (WakeMed), Raleigh, NC, August 18, 1999
11. Peden, D. "Update in Asthma Management", Telelecture, Mountain AHEC, August 24, 1999
12. Peden, D. "Air Pollution and Asthma", Pediatric Grand Rounds-UNC School of Medicine, Chapel Hill, NC, July, 1999
13. Peden, D. "Asthma Update", Pediatric Grand Rounds, Maria Parham Hospital, Henderson, NC, April, 1999
14. Peden, D. "Asthma Therapy" Student Health Colloquium, North Carolina State University, Wake AHEC, Raleigh, NC. March, 1999
15. Peden, D. "Use of Inhaled Steroids in Asthma" Pediatric Grand Rounds, Randolph Memorial Hospital, Asheboro, NC. March, 1999
16. Peden, D. and Henke D. “Review of Allergic Diseases”, Combined Medicine/Pediatric Grand Rounds, UNC School of Medicine. Oct 1, 1998.
17. Peden D. “Asthma Update 97”, Pediatric Grand Rounds, Dept. of Pediatrics, UNC School of Medicine. August 21,1997.

**Invited Regional, National and International Presentations (1996-present):**

1. Peden DB, “The Effect of Air Pollutants on Asthma, Allergic and Immunologic Disease”, 2019 Annual Meeting, Western Society of Allergy, Asthma and Immunology, Maui, HI, 1-23-2019
2. Peden DB, “Indoor Biomass and Wildfire Exposure and Human Health”, 2019 Annual Meeting, Western Society of Allergy, Asthma and Immunology, Maui, HI, 1-22-2019
3. Peden DB. “The Impact of Air Pollution on the Epigenetics of Allergic Disease and Asthma”. 2018 Annual Meeting, American College of Allergy, Asthma and Immunology, Seattle, WA, 11-17-2018
4. Peden DB, “Global perspective of air pollution on allergy prevalence and relapse”. 2018 Joint Congress of the APAAACI & APAPARI, Bangkok, Thailand, 10-14-2018
5. Peden DB, “Air Pollution and Allergy”. 2018 Joint Congress of the APAAACI & APAPARI, Bangkok, Thailand, 10-13-2018
6. Peden DB. “Core competencies & Convergence for personalized/global health”, 2018 Institute for Biological Engineering Annual Meeting, Norfolk, VA, April 7, 2018
7. Peden DB. Keynote Speaker, “Environmental Impacts on Pollen and Wildfire Effects on Human Health”, 2018 CSTE Climate & Respiratory Health Meeting, Centers for Disease Control and Prevention, Atlanta, GA, March 15, 2018.
8. Peden DB. “Environmental Impacts on Asthma: Biology to Intervention” AAAAI Foundation and I. Leonard Bernstein, MD FAAAAI Memorial Lectureship, Presented in the Presidential Plenary Session at the Annual Meeting of the American Academy of Allergy, Asthma and Immunology, March 2, 2018, Orlando, FL.
9. Peden DB. “Pharmaceutical and Nutraceutical Interventions for Air Pollution induced Lung Disease”. Research Seminar, Xinxiang Medical University, School of Public Health, Xinxiang, Henan Province, China, September 20, 2017
10. Peden DB. “Environmental Impacts on Allergic Disease” Asthma & Allergy Foundation of America, Alaska Chapter 12th Annual Alaska Asthma & Allergy Conference, Girdwood, AK, September 8-9, 2017
11. Peden DB. “Interventions to reduce the impact of pollutants on allergic disease”, Presented at the Annual Meeting of the European Academy of Allergy and Clinical Immunology, June 18, 2017
12. Peden DB. “Pollutants and Asthma”, Presented at Allergy/Immunology Grand Rounds, University of Wisconsin, Madison, Wisconsin, Februrary 1, 2017
13. Peden DB. “Immunomodulation of Allergic Diseases”. Presented at the Current Topics in Allergy and Clinical Immunology CME course, Division of Immunology, Department of Internal Medicine Grand Rounds, Carver College of Medicine, University of Iowa, Iowa City, Iowa. September 23, 2016
14. Peden DB. Paul M. and Dorothy E. Seebohm Visiting Lectureship in Allergy “Environmental Impact on Asthma and Allergic Diseases”, Presented at the Department of Internal Medicine Grand Rounds, Carver College of Medicine, University of Iowa, Iowa City, Iowa. September 22, 2016
15. Peden DB. “Influence of Environmental Factors on Asthma and COPD”. Presented at the Life Spectrum of Asthma Meeting of the American Academy of Allergy, Asthma and Immunology, Chicago, IL, July 31, 2016
16. Peden DB. “Adverse health effects and disease due to air pollution” 2016 Frank P. Anderson, MD Memorial Lecture, Children’s Hospital of Georgia & Department of Pediatrics, Medical College of Georgia, Augusta University, Augusta, Georgia, June 17, 2016
17. Peden DB. Development of Interventions for PM Induced Airway and Systemic Diseases, NIEHS Symposium “Indoor exposure to biomass/woodsmoke exposure and pulmonary health” at the American Thoracic Society International Conference, May 15, 2016, San Francisco, CA
18. Peden DB. Translational studies of air pollution-induced inflammation. Invited Speaker, National Jewish Health, January 14, 2016, Denver, CO
19. Peden DB. Environmental factors contributing to severe asthma. Duke University Severe Asthma Conference–Mechanisms, Diagnosis, and Treatments, October 3, 2015. Searle Conference Center, Duke University, Durham, NC
20. Peden DB, Clinical Relevance of Juvenile Toxicity Studies, Society of Toxicologic Pathology Regional Meeting, National Institute of Environmental Health Sciences / National Toxicology Program, Research Triangle Park, NC, March 13, 2015
21. Peden DB, Population Health and Bridging Community-Clinical Connections. 2015 Summit of the Asthma Alliance of North Carolina, 3/4/2015, Burlington, NC
22. Farooqui N and Peden DB, Difficult Cases: Occupational Asthma in the Difficult Cases Symposia Presentation, The American Academy of Allergy, Asthma & Immunology Annual Meeting, February 20, 2015, Houston Texas
23. Peden DB, Literature Review on Air Pollution’s Effects on Atopic Disease, Winter Meeting of the NC Asthma, Allergy and Immunology Society, January 31, 2015, Greensboro, NC
24. Peden DB, Smoking, Air Pollution, Indoor Triggers. 2014 the “Great Raft Debate”, Annual Meeting of the American College of Allergy, Asthma and Immunology, 11/8/14, Atlanta, Georgia
25. Peden DB, Development of interventions to mitigate adverse health effects caused by pollution. 2014 International Symposium on Environmental Pollution and Health, Xinxiang, China, 9/15/2014
26. Peden DB, Asthma Literature Review, Annual Meeting of the NC Asthma, Allergy and Immunology Society, July 12, 2014, Greensboro, NC
27. Peden DB, Air Pollution Effects in Asthma and Human Health, Annual Meeting of Southeastern Allergy, Asthma and Immunology Society, Asheville, NC, September 20, 2013
28. Peden DB: Plenary presentation, “How do different factors such as genetics, age, and nutrition impact human responses to chemical exposures?”. ICCA-LRI and NCATS Workshop “What is Normal? Implications for Chemical Safety Assessment. Santa Fe, NM June 11-12, 2013
29. Peden DB: Grand Rounds, Allegheny General Hospital and West Penn Allegheny Health System Asthma Summit: “National Impact of Air Pollution on Asthma”, Pittsburgh, PA 5/17/2012
30. Peden DB. “Report of the Asthma Exacerbations Sub-Committee”, in the symposium NIH Asthma Outcomes”. World Allergy Organization Meeting, 12/6/2011, Cancun, Mexico
31. Peden DB. “Human Studies of GSTM1 and Response to Pollutants”; Mailman School of Public Health, Columbia University, 10/27/2011
32. Peden DB. “Report of the Asthma Exacerbations Sub-Committee” Part of the symposium on the NIH Asthma Outcomes Workshop, International Meeting of the American Thoracic Society, Denver, CO, 5/2011
33. Peden DB “Immunobiology of Acute Environmental Asthma”. Presented in the Postgraduate Course Advances by the NIAID Asthma and Allergic Diseases Cooperative Research Centers, International Meeting of the American Thoracic Society, Denver, CO, 5/2011
34. Peden DB “Air Pollution and Asthma” NIAID Grand Rounds, Bethesda, MD, 1/21/2011
35. Peden DB, “Environmental and Oxidant Stress in Asthma”. Aspen Allergy Meeting, Aspen, CO. July 29,2010
36. Peden DB, Environmental Pollutants and Asthma” Boston City-Wide Allergy and Immunology Rounds, Boston, MA, April 13, 2010
37. Peden DB, “Environmental Influences on Respiratory Disease” Spring Meeting of the West Virginia Chapter of the American Academy of Pediatrics, Morgantown, WV, April 10, 2010
38. Peden DB, “Translational Research for Environmental Health” NC TraCS Symposium: Translational Research to Address Health Disparities across the Lifespan, Chapel Hill, NC March 19, 2010
39. Peden DB, “Health Effects of Air Pollution” 2010 National Air Quality Conferences Air Quality Forecasting, Mapping, and Monitoring and Communicating Air Quality. Sponsored by the US Environmental Protection Agency, March 17, 2010, Raleigh, NC
40. Peden DB, “Health Impacts of Climate Change in Allergy and Asthma” presented at the Plenary Session “New Environmental Aspects in Allergy and Asthma” of the 2009 World Allergy Conference of the World Allergy Organization, Buenos Aires, Argentina, December 9, 2009
41. Peden DB, “Environmental Influences on Airway Disease: Gene X Environment Interactions” presented at the 36th Annual Postgraduate Course of the Alexander Spock Symposium| “Genetic & Public Health Frontiers of Pediatric Medicine”, Duke University Medical Center, Durham, NC, November 7, 2009
42. Peden DB, “Oxidant Stress and Airway Disease” presented at the 4th International Conference on Oxidative/Nitrosative Stress and Disease”, New York Academy of Sciences, New York, NY, October 30, 2009
43. Peden DB, "Immunobiology of Acute Environmental Asthma". Course presentation at the 2009 International Conference of the American Thoracic Society, May 2009
44. Peden DB, "The Biology of Antioxidant Complementary and Alternative Medicine Approaches in Allergy". Presented in the Symposium "The Science of Alternative Medicine in Allergy: A Tribute to Stephen Straus" at the Annual Meeting of the American Academy of Allergy, Asthma and Immunology March 14, 2009

1. Peden DB"Patient/Physician Perspective - The Environment / Immune System Interface - How it fits together" Presented at the "Environment, Public Policy and Human Health Emerging Trends" forum sponsored by the American Academy of Allergy, Asthma and Immunology at the Cannon Caucus Room of the US House of Representatives, Washington DC, March 13, 2009
2. Peden DB. "Mechanisms of Asthma Exacerbation due to Air Pollution". 2008 Southeast Allergy, Asthma & Immunology Society Annual Meeting, October 18, 2008, The Homestead, Hot Springs, VA
3. Peden DB. What Is The Role Of Environmental Exposures In Predisposing To Bronchiectasis? Presentation in the Symposium “Childhood bronchiectasis: views from around the world” 2008 ATS International Conference, May 18,2008, Toronto, Ont., Canada
4. Peden D. "Endotoxin: Mechanisms at Play (in causing asthma exacerbation)". Workshop presentation, The American Academy of Allergy, Asthma & Immunology Annual Meeting, Philadelphia, PA 3/15/2008
5. Peden D. "Monocyte and Macrophage Biology in Asthma", Research Seminar, Division of Allergy and Immunology, Creighton University, Omaha, NE 11/16/07
6. Peden D. "Air Pollution and Asthma". Nebraska Academy of Allergy, Asthma & Immunology 11/15/07, Omaha, NE
7. Peden D. " The changing prevalence of asthma, atopic allergy and autoimmune diseases" 44th Congress of the European Societies for Toxicology, Amsterdam, The Netherlands, 10/08/2007
8. Peden DB. Upregulation of Airway Macrophages and Monocytes by Environmental Agents in Asthma. Research Seminar, Department of Pediatrics, Mount Sinai School of Medicine, New York, NY , 6/14/2007
9. Peden, DB " Endotoxins Can Modulate Allergic Inflammatory Responses" in the Symposium "What Makes an Allergen Allergenic?" The American Academy of Allergy, Asthma & Immunology Annual Meeting, San Diego, CA, 2/27/2007
10. Peden, D., "The Impact of Poor Air Quality in Asthma (and what you can do about it)" Pediatric Grand Rounds, Duke University, Durham, NC 1/23/2007
11. Peden, D. "The Environment and Asthma", 2006 Dees Symposium on Allergy and Immunology, Duke University, Durham, NC 10/28/2006
12. Peden, D. "Monocytes and Macrophages in Asthma" Airway Biology Forum, Duke University, Durham, NC 9/15/2006

1. Peden, D. Invited Workshop Participant, "Enhancing Capacity to Study Gene-Environment Interactions in Complex Traits". Harvard School of Public Health, Cambridge, MA 6/18/2006
2. Peden, D. "Environmental Causes of COPD: Outdoor Environment" Invited Speaker, "COPD in Never Smokers" Workshop, NHLBI/NIOSH, Bethsda, MD 5/1-2/2006
3. Peden, D. "Translational Research on the Biology of Response to Pollutants". Environmental Cardiology Research Group, Department of Medicine, East Carolina University, Greenville, NC 4/27/06
4. Peden, D. "Pollution, air quality and asthma" Pediatric Grand Rounds, East Carolina University, Greenville, NC 4/27/06
5. Peden, D. "Environmental Influences on the Biology of Asthma", Invited Speaker, Asthma and the Environment Seminar Series, Asthma Program, NHEERL, US EPA, Research Triangle Park, NC 4/10/2006
6. Peden, D. “Air pollution and asthma” Long Island Allergy & Asthma Society Meeting, Long Island, NY 1/26/2006
7. Peden, D. “What causes asthma and what can we do about it? Environmental Influences” American College of Chest Physicians Annual Meeting, Montreal, CA, Oct 31,2005
8. Peden, D. “The Air that Children Breath: Not All is Healthy”. Invited Seminar Presentation, American Academy of Pediatrics Annual Meeting, Washington DC, Oct 9,2005
9. Peden, D. Health effects of inhaled endotoxin. University of Southern California Department of Preventive Medicine Seminar. Los Angeles, CA, Oct 8, 2005
10. Peden, D. Environment, Lifestyle, Genetics and Asthma Development. Invited Speaker, JRC (of the EU) /EOHSI International Workshop "Modifiers of Chemical Toxicity: Implications for Human Health Risk Assessment" June, 2005, Poros, Greece.
11. Peden D. “Environmental Modulation of Allergic Disease” Invited Plenary Presentation, 62nd Annual Meeting of the American Academy of Allergy, Asthma and Immunology, San Antonio, TX, March 19, 2005
12. Peden D. “Air Pollution-Is the air safe to breathe?” Alexander Spock Symposium, Duke University Department of Pediatrics, Durham, NC, 10/30/04

1. Peden, D. “*In vivo* studies of inhaled endotoxin on airway inflammation in humans". Lung Biology Research Seminar Series, University of Rochester School of Medicine & Dentistry, Rochester NY, 1/6/04.
2. Peden D. “The Impact of Air Pollution in Asthma” Greater Washington Allergy, Asthma & Immunology Society Conference Series, 12/3/03, (DC Area), Vienna, VA
3. Peden, D “Endotoxin exposure in asthma” Workshop presentation, World Allergy Organization meeting, Vancouver, BC, Canada, 9/8/03
4. Peden, D. “Effect of ozone and bioaerosols in asthma” Invited presentation Pennsylvania Asthma and Allergy Association, Hershey, PA 6/21/03
5. Peden, D. “Immunological Lung Development And Exposure Timing Aspects Relevant To Potential Air Pollution Mechanisms” Invited presentation in the symposium “Air Pollution as a Cause of Childhood Asthma and Chronic Airway Disease” 99th International Conference of the American Thoracic Society, Seattle, WA, May 21, 2003
6. Peden, D. “Endotoxin and Allergic Diseases: A Two Edged Sword” April 2003 Meeting of the American Association of Veterinary Dermatology, Monterey, CA
7. Peden, D. “Environmental Ozone as a Predictor of Exercise-Related Lung Symptoms” Workshop Presentation, 60th Annual Meeting of the American Academy of Allergy, Asthma and Immunology, Denver, CO March 12, 2003
8. Peden, D. Visiting Professor, Houston Allergy Society (Baylor University, University of Texas at Houston, University of Texas-Medical Branch), Houston, Texas Dec 3-5,2002.
9. Peden, D. “Short and Long Term Risks of Undertreatment of Pediatric Asthma” Invited Speaker, Annual Meeting of the American College of Chest Physicians, San Diego, CA Nov 4, 2002.
10. Peden, D. “Mechanisms of increased susceptibility of children to air pollution” Invited Speaker, European Respiratory Society Meeting, Stockholm, Sweden, September 16, 2002 (Invited Speaker)
11. Peden, D. “Allergies and Asthma”, Invited Guest, “The People’s Pharmacy”, National Public Radio, August, 2002
12. Peden, D “Asthma” North Carolina Asthma Summit, Friday Center, Chapel Hill, NC, July, 2002
13. Peden, D. “The Impact of Pollution on Allergy and Asthma: An Epidemiological and Clinical Studies Overview”, Invited presentation in the symposium “Allergens and Air Pollutants: Co-Exposures and Airway Responses” 98th International Conference of the American Thoracic Society, Atlanta, Georgia, May 19, 2002
14. Peden, D. “Endotoxin and Diesel Effects on Airway Inflammation” Invited presentation in the mini-symposium “Airway Responsiveness and non-allergic stimuli: Irritants, Endotoxin and other agents” 98th International Conference of the American Thoracic Society, Atlanta, Georgia, May 19, 2002
15. Peden, D. “Allergic Rhinitis” Invited Speaker, 9th Annual Allergy Fellows Symposium Altanta, Georgia May 17, 2002
16. Peden, D. “Development and sensitivity of the immune system” Invited Speaker Health Effects Institute Annual Conference 2002 Seattle, Washington, April 28,2002
17. Peden, D. “Impact of Air Pollution on Allergic Respiratory Diseases” Workshop Presentation, 58th Annual Meeting of the American Academy of Allergy, Asthma and Immunology, New York, NY, March 6, 2002
18. Peden, D. “New Advances in Asthma and Allergies” Presented at the “Masters of Pediatrics” Conference University of Miami School of Medicine Miami Beach, FL, Jan 15, 2002

1. Peden, D. “Air Pollution and Asthma…a Red Air Day Really Matters!!” Presented at the “Frontiers of Pediatrics” Conference Medical University of South Carolina Charleston, SC, Dec 2, 2001
2. Peden, D. “New Therapies for Asthma and Allergies” Presented at the “Frontiers of Pediatrics” Conference Medical University of South Carolina Charleston, SC, Dec 1, 2001
3. Peden, D. Asthma and Allergy Update:Chronic Controller Medication Medicine/Pediatric Grand Rounds, Womack Army Medical Center Ft. Bragg, NC, Oct 17, 2001
4. Peden, D. "Sinusitis and Asthma" Presented in the *Current Strategies in the Management of Asthma: From the Infant to the Elderly* conference, presented by the National Institute of Allergy and Infectious Diseases (NIAID) and the National Institute of Environmental Health Sciences (NIEHS) of the National Institutes of Health (NIH), Chaired by William Busse, MD and Sally Wenzel, MD. Washington, DC, June 18-19, 2001
5. Peden, D "Role of Pollutants in Asthma" Presented in the *Current Strategies in the Management of Asthma: From the Infant to the Elderly* conference, presented by the National Institute of Allergy and Infectious Diseases (NIAID) and the National Institute of Environmental Health Sciences (NIEHS) of the National Institutes of Health (NIH), Chaired by William Busse, MD and Sally Wenzel, MD. Washington, DC, June 18-19, 2001
6. Peden D. “Environmental influences on the development of allergy and asthma” presented in the "Respiratory allergies: Paradoxes and controversies" workshop of the International Congress of Toxicology, Brisbane, Australia July 8-13, 2001.
7. Peden, D. “Inhalation studies of air pollutants in asthma” 8th International Inhalation Symposium "Crucial Issues in Inhalation Research -Mechanistic, Clinical and Epidemiologic" Hanover, Germany, 6 - 9 June, 2001
8. Peden, D. Invitation. "Air pollution effects on asthma -role of air toxics in asthma pathogenesis vs. biological allergens" presentation in the symposium, "Environmental Air Toxics: Role is Asthma Occurrence" sponsored by The Mickey Leland National Urban Air Toxics Research Center, School of Public Health, University of Texas at Houston, Houston Texas, May 30-31, 2001
9. Peden, D. “Respiratory Health and Air Quality” Invited presentation-Conference: Dispelling the Fear and Discovering the Truth: Linking the Environment and Health. Sustainable Universities Initiative of the State University System of South Carolina. Columbia, SC, April 6, 2001
10. Peden, D "The Role of Ozone in Augmenting Allergic Responses", presentation in the Workshop entitled "Interaction Between Allergens and Irritants in Airway Inflammation", Annual Meeting of the American Academy of Allergy, Asthma and Immunology, New Orleans, LA, March 19, 2001
11. Peden, D., Visiting Professor, NIEHS Seminar Series at UTMB in Galveston, TX, Dec 6, 2000
12. Peden D., "Air Pollution in Asthma" in the Environment and Allergy symposium of the Annual Meeting of the American College of Allergy, Asthma and Immunology, Seattle, WA, November 3, 2000
13. Peden D. "Little Particles, Big Effects" New Trends in Allergy V International Symposium, Davos, Switzerland, September 15-17, 2000
14. Peden D., "Atmospheric Contaminants and Human Health” Ecology and Health 2000 Conference, Mr. William Friday and Dr. Dennis McBride Co-Chairs, UNC School of Public Health and NC Division of Health, Sponsors, June 29, 2000, Raleigh, NC
15. Peden D., "Food Allergies in Pediatrics" Combined Duke-UNC Primary Care Conference. April 7, 2000, Friday Center, Chapel Hill, NC
16. Peden D., "The Role of Endotoxin in Asthma and Allergy" Invited presentation, Symposium presentation: The role of endotoxin in occupational and environmental lung disease: exposure-response relationships and susceptibility factors, Society of Toxicology, Philadelphia, PA 3/21/00
17. Peden D., Nel, A. and Balmes J., "Air Pollution and Asthma" Workshop at the 2000 annual meeting of the American Academy of Allergy, Asthma & Immunology, San Diego, CA, 3/4/00 (Workshop Chairman)
18. Peden D. “Health Effects of Air Pollution” Public hearing before the Environmental Resources Board, State of North Carolina, Invited by Secretary Holman of the State Department of the Environment and Natural Resources. January, 2000
19. Peden, D. "Exercise-induced Asthma" Pediatric Oktoberfest, West Virginia University School of Medicine Morgantown, WV, October, 1999
20. Peden, D. "Air Pollution and Asthma" Grand Rounds, Gundersen Lutheran Medical Center La Crosse, WI, August 30, 1999
21. Peden, D. "Update in Asthma Treatment" Pediatric Grand Rounds, Texas Tech School of Medicine Lubbock Texas, June, 1999
22. Peden, D. "Ozone and Asthma" Governor's Summit: Clearing the Air Asheville, NC 4/7/99
23. Peden, D. "Air Quality and Asthma" "Breathing New Life into North Carolina's Childhood Asthma Care: Maximizing Local Resources" Friday Center, Chapel Hill, NC March 18, 1999
24. Peden, D. Environmental Modulation of Allergic Inflammation. EOD Workshop, 1999 Annual Meeting of the American Academy of Asthma, Allergy and Immunology, March 2, 1999
25. Peden, D. Air Pollution and Asthma. Invited Speaker. EOD Symposium, 1999 Annual Meeting of the American Academy of Asthma, Allergy and Immunology, February 28, 1999
26. Peden, D. Controversies in Asthma Therapy. Invited speaker. Infectious Diseases in Children Symposium 98, sponsored by Pediatric Infectious Diseases. New York, NY. November 1998
27. Peden D. Effect of Air Pollution in Asthma. Invited speaker, Biannual Susan B. Dees Allergy and Immunology Symposium, sponsored by Duke University Medical Center and the American Academy of Asthma, Allergy & Immunology. Durham, NC, November, 1998
28. Peden D. Effect of ozone on asthma in children. Invited speaker, Annual meeting of the National Capital Area Chapter of the Society of Toxicology. Bethesda, MD, May 1998
29. Peden D. Quality of Life: The patient’s bottom line. Invited Speaker, Symposium: Allergic Rhinitis: Charting a Course for the 21st century. Washington, DC, May 1998
30. Boehlecke B, Peden D. Endotoxin and Asthma. Center for Indoor Air Research Symposium, Aug, 1997, Jackson Hole, WY
31. Peden D. Interaction of asthma, allergies and the environment on the lower respiratory tract. Guest faculty: Allergies, Asthma and the Environment Symposium, University of Chicago, May,1997, Chicago, Illinois
32. Peden D. Effect of Air Pollution in Asthma. Invited speaker: Effect of infection and irritants in asthma symposium; 1997 ATS/ALA International Conference, May 1997, San Francisco, CA, 1997
33. Peden, D. In vivo studies of pollutants in asthma. International roundtable on the effect of pollutants in asthma. Salzburg, Austria, Sept, 1996
34. Peden, D. The use of nasal lavage in assessing the effect of pollutants on allergen-induced airway inflammation. Invited speaker: Asthma & the environment workshop, US EPA National Health and Environmental Effects Research Laboratory, Chapel Hill, NC, May, 1996
35. Peden, D. Interactions between allergen and air pollutants in atopic asthmatics. Invited speaker: Biomarkers of upper airway responses to irritants symposium; 1996 ATS/ALA International Conference, May 1996, New Orleans, LA, 1996
36. Peden, D, Boehlecke B, Horstman D, RB Devlin. Influx of bronchial neutrophils and eosinophils in asthmatics after exposure to 0.16 ppm ozone. 1996 ATS/ALA International Conference, May 1996, New Orleans, LA
37. Peden, D. Impact of ozone on the upper and lower airways; interaction with allergens. 35th Annual Swineford Allergy Conference, The University of Virginia Asthma and Allergic Disease Center, Charlottesville, VA , April 19, 1996
38. Peden, D, Wortman, I, Dailey L. Epithelial inhibition of mast cell activity, 52nd annual meeting, American Academy of Allergy, Asthma & Immunology, New Orleans, LA. March,1996
39. Peden, D.B. Ozone. Workshop on Air Pollution & Asthma.52nd annual meeting, American Academy of Allergy, Asthma & Immunology, New Orleans, LA. March,1996

**Training grant director:**

National Institute of Allergy and Infectious Diseases-Joint Allergy/Immunology Training Grant (Duke University, Sleasman, J, PI, D Peden mPI at UNC) 2T32AI007062 “Research Training in Allergy and Clinical Immunology” Role: multi-Principal Investigator, $371,126/year, 9/1/2016-8/31/2021

**Research Teaching/Mentorships:**

Junior Faculty Mentor for:

1. Jada Brooks, PhD, RN, Assistant Professor, School of Nursing, Primary Mentor, K23 “Inflammatory Mediators, Hazardous Air Pollutants, and Positivity”, 6/2016-present
2. Samuel Jones, MD (Burn Surgeon, KL2 program-current, K08, Co-Primary Mentor, with Bruce Cairns, MD)
3. Bradford Harris, MD (Pediatric Critical Care Medicine, K30 program 1/2004-1/2006)-currently an FDA review officer
4. Matt Laughon, MD (Neonatology, K30 program 1/2006 to 12/2008)-Associate Professor of Pediatrics-Neonatology
5. Marianne Muhlebach, MD (Pediatric Pulmonology, K30 program)-Associate Professor of Pediatrics-Pulmonary Medicine
6. Michelle Hernandez, MD (Allergy & Immunology, K30 program, KL2 program, K23 primary mentor)-Associate Professor of Pediatrics
7. Maureen Su, MD (Pediatric Endocrinology), Co-Mentor at UNC, Associate Professor of Pediatrics, member of mentoring committee
8. Brian Vickery, MD (Allegry/Immunology)-Assistant Professor, Chair of Mentoring Committee
9. Ian Davis, MD, PhD (Hemtaology/Oncology)-Associate Professor, Chair of Mentoring Committee
10. Timothy Moran, MD, PhD-current, primary mentor, KL2 program
11. Ilona Jaspers, PhD-currently a tenured professor in the CEMALB, I have been a primary administrative and team science mentor for her.

Primary Research Advisor for:

1. Allison Burbank, MD, Allergy/Immunology fellow (7/2015-present)
2. Aaron Kobernick, MD, MPH, Allergy/Immunology fellow (7/2015-6/30/2016)
3. Robin Muller, MS Toxicology program/MD school (9//2011-7/2014)
4. Madeline Adams, MD (Allergy and Immunology Fellow, 7/2008-2010, Private Practice)
5. Vinod Doreswamy, MD (Allergy and Immunology Fellow, 7/2007-2010, Private Practice)
6. Michael Chou, MD (Allergy and Immunology Fellow, 7/2007-6/2009, Private Practice)
7. Taryn Richardson, MD (Allergy and Immunology Fellow 7/2007-6/2009, Private Practice)
8. Ceila Loughlin, MD (Pediatric Pulmonary Fellow, 7/05-6/08, Assistant Professor of Pediatrics, Pediatric Pulmonology, UNC)
9. Reuben Howden, Ph.D (NIEHS postdoctoral fellow in the joint CEMALB/LRB research program 7/2002-2007, currently Assistant Professor, UNC Charlotte)
10. Stephen Parsons, M.D, Ph.D (Resident in Pediatrics-Senior Research Project-winner of the 2002 Outstanding Resident Research Award1/2002-6/2002, Neonatologist, WakeMed)
11. Kelly Griffith, Pharm.D. candidate, School of Pharmacy 2/2001-4/2002, Private Practice
12. Marlowe Eldridge, M.D. (UNC GCRC/NIEHS Fellow, 7/98-8/2000)
13. Gregory Bensch, M.D. (Resident, Internal Medicine, 8/95-7/97)
14. Peter Michelson, M.D. (Pediatric Pulmonary Fellow, 7/93-7/95)

1. Greg Bottei, M.D. (Adult Pulmonary Fellow, 7/93-7/95)

Assistant preceptor:

1. Malinda Longphre, Ph.D., Visiting Postdoctoral Fellow from the laboratory of Steven Kleeberger, Ph.D, School of Hygiene and Public Health, Johns Hopkins University 5/98-7/98
2. Franciose Pradel, Candidate for the M.S. in Pharmacy Administration, School of Pharmacy (Project:The pharmacological and sociocultural management of childhood asthma, Dr. Hartzema-major professor, School of Pharmacy) -completed.

**Clinical Teaching /Attending on Clinical Service**

1. Primary preceptor for the Allergy/Immunology Fellows in the pediatric allergy/immunology continuity clinic

2. Preceptor for the Pediatric Immunology Service.

**Graduate Supervision, Committees**

Graduate Dissertation Committee Chair:

1. Gillian Backus-Hazzard, Candidate for the Ph.D degree, Curriculum in Toxicology School of Medicine, University of North Carolina (Graduated 2006)
2. Johnathan Ciencewicki, Candidate for the Ph.D degree, Curriculum in Toxicology School of Medicine, University of North Carolina (Graduated 2007)
3. Tina Stevens, Candidate for the Ph.D degree, Curriculum in Toxicology School of Medicine, University of North Carolina (graduated 2008)

1. Monica High, Candidate for the Ph.D. degree, Curriculum in Toxicology School of Medicine, University of North Carolina (Graduated 2010)
2. Jennifer Nichols, Candidate for the Ph.D. degree, Curriculum in Toxicology School of Medicine, University of North Carolina (Graduated, 2012)
3. Nicole Kurhanewicz, Candidate for the Ph.D degree, Curriculum in Toxicology School of Medicine, University of North Carolina (Graduated 2016)

Graduate Dissertation Committee Member:

1. Katherine Horvath, Candidate for the Ph.D. degree, Curriculum in Toxicology School of Medicine, University of North Carolina (Graduated, Ilona Jaspers, Chair)

2. Rachel Cote, Candidate for the PhD degree, Curriculum of Genetics (present, B Koller, Chair)

3. Maria Mirabelli, MS, Candidate for the Ph.D. degree, Department of Epidemiology, School of Public Health, University of North Carolina (S Wing, Chair).

4. Leslie (Goodno) Elliott, MS, Candidate for the Ph.D degree, Department of Epidemiology, School of Public Health, University of North Carolina (D Loomis, Chair)

5. Mark Sortir, MS, Candidate for the Ph.D degree, Department of Epidemiology, School of Public Health, University of North Carolina

6. Tom Heil, BS, Candidate for the Ph.D degree, Department of Biomedical Engineering (Steve Downs, MD-major professor)

7. Marc Cribbs, B.A., Candidate for the M.S. degree in the Oral Biology Program of the School of Dentistry (Roland Arnold, Ph. D-major professor, School of Dentistry)-7/99

8. H. Henry Liu, DDS, Candidate for the Ph. D. degree in the Oral Biology Program of the School of Dentistry (Project: Role of Neutrophils in Periodontal Disease, Roland Arnold, Ph. D-major professor, School of Dentistry)-5/99

**Grants:**

**Grants & Contracts Funded (Active):**

***US Environmental Protection Agency:***

Environmental Protection Agency Cooperative Agreement CR 83578501 “Human Health Effects of Environmental Pollutants” (Catalog of Federal Domestic Assistance Number: 66.511) for the Office of Research and Development Consolidated Research, US EPA. Role: Principal Investigator, Percent Effort 15%. $800,000 base funding annual total costs, up to $600,000 annual total costs for supplemental projects (proposed funding period 4/1/2015-3/31/2022).

***National Institutes of Health:***

National Heart Lung and Blood Institute P01-HL108808- Development of Novel Mucolytic Therapies for Lung Disease (Boucher/Peden). 9/1/2017-6/30/2022. This is a renewal application for a translational program project grant from NHLBI focused on developing and testing thiol based mucolytics for treatment of CF and asthma. CEMALB and Marsico Lung Institute investigators will undertake these studies. The study will involve 2 phase I safety studies and 3 phase II studies in CF and asthma patients. Annual award $2,656,117/year total costs. Role: lead-PI, 25% effort.

National Heart Lung and Blood Institute U24HL138998-01 Title: Data, Modeling and Coordination Center For Precise Network (Ivanova/Couper). UNC serves as the Data Coordinating Center for NHLBI's Precision Interventions for Severe and/or Exacerbation-Prone Asthma (PrecISE) Network. The objective of PrecISE is to conduct sequential, adaptive, phase II/proof of concept trials with precision interventions in stratified patient with severe asthma populations. Patients with severe asthma are heterogeneous, and thus a hard to treat population. This group coordinates the PrecISE network and Drs. Ivanova, Couper, Peden and Kosorok on the PrecISE executive committee. Role: Key Personnel (Co-Investigator)10% effort (grant period 9-23-17 to 6-30-23).

National Institute of Environmental Health Sciences Grant R01-ES023349. “Phase II studies of gamma tocopherol as an intervention for environmental asthma”. Role: Principal Investigator, Percent Effect 15%, $2,562,381 total costs throughout the entire grant period (grant period 9/12/2013-4/30/18).

National Center for Advancing Translational Sciences/National Institutes of Health-NCATS UL1TR002489 "UNC Clinical and Translational Science Award" (Institutional Clinical and Translational Science Award). Total Direct Costs $11,497,887/year (9-26-13 to 4-30-18, J Buse and T Carey, co-PI). Role: Associate Director for Cross-Disciplinary Science, Percent Effort 5%

National Institutes of Allergy and Infectious Diseases (NIH/Benaroya Res Inst Subcontract) 1UM1AI1109565-01 (Nepom) 5/1/14-1/31/18 $162,419. The Collaborative Network for Clinical Research in Immune Tolerance. The purpose of this study is to determine if anti-TSLP in conjunction with antigen-specific Immunotherapy can induce tolerance to cat allergen. Role: Site Principal Investigator

National Institute of Environmental Health Sciences R01ES025124, “Gamma tocopherol chemoprevention of wood smoke PM2.5-induced airway inflammation”. Role: Principal Investigator Percent Effort 15% $2,826,485 total costs for entire grant period (3/1/2016-2/28/2021).

National Institute of Allergy and Infectious Diseases (Duke University, Sleasman, J and Peden D PI) 2T32AI007062 “Research Training in Allergy and Clinical Immunology” Role: multi-Principal Investigator, $371,126/year, 9/1/2016-8/31/2021

National Center for Advancing Translational Sciences 1-OT3-TR002020 (Ahalt) Carolina Biomedical Data Translator 09/01/16-08/31/18 NIH $682,061 This proposal focuses on building a pilot that uses data drawn from electronic health records, molecular data, and environmental exposure data. Role: Investigator, 15% effort, Role: Key Personnel

***National Science Foundation:***

NSF Nanosystems Engineering Research Center for Advanced Self-Sustaining Integrated Sensor Technologies (ASSIST); Total budget annually $4,000,000, (10/1/2012-9/30/2017) UNC subcontract: $140,000. Role: UNC Principal Investigator/Medical Director (V. Misra, Lead PI, North Carolina State University, Prime account). Percent Effort 5%.

***Department of Defense:***

DA Army Medical Research Acquisition Activity- “Bronchitis in the Military: Diagnosis, Risk Mitigation, and Treatment” Total budget $9,964,278.00, (Boucher, PI), role-Investigator (co-lead, project 4). 09/15/2018 -09/14/2022. Percent effort 10%

**Grants & Contracts Funded (Pending):**

**Grants & Contracts Funded (Completed):**

Environmental Protection Agency CR 83346301 "Health effects of exposure to air pollutants in humans." Total Funds Requested $17,999,995 over entire funding period (7-1-2007 to 1-31-2015). Maximum direct costs/year $1,800,000. Role: Principal Investigator, Percent effort: 15%

National Institutes of Health-NIAID. U19AI077437-05S1 in the NIAID Asthma and Allergic Diseases Cooperative Research Center (AADCRC) Program. "Immunobiology of Acute Environmental Asthma" Role: PI. Percent Effort: 5%. Total costs for administrative supplement $186,113; 3-1-2013 to 2-28-2014).

National Institutes of Health-NIAID. U19AI077437-05 in the NIAID Asthma and Allergic Diseases Cooperative Research Center (AADCRC) Program. "Immunobiology of Acute Environmental Asthma" Role: PI. Percent Effort: 25%. $1,200,000/year direct costs for project (3-1-2008 to 2-28-2013, on NCE through 2-28-2014).

National Institutes of Health (NIEHS-1RC1ES018417) Investigating gene x environment interaction using human exposures to O3 & LPS. Funding period 10-1-2009 to 9-30-2011. Total Direct Costs: $660,000 over entire funding period. Role: Principal Investigator Percent effort: 15% on No Cost Extension to 9/30/2012

National Institutes of Health-NHLBI P50HL084934 “SCCOR in Host Factors in Chronic Lung Diseases” Project IV “Smoking and airway innate host defense: in vivo studies” (R Boucher PI). Role Project Leader, Percent Effort: 20% $300,000 direct costs for project. (9-1-2006 to 9-1-2011, on No Cost Extension to 9/30/2012)

National Institutes of Health (NCCAM- P01AT002620) of the NCCAM Centers for Excellence in CAM Research, “Translational Research Center for CAM Therapy of Asthma” $998,069/year direct costs, Role Principal Investigator/PPG Program Director. Percent Effort 25% (9/30/2004-9/30/2009)

National Institutes of Health (NIEHS-R01ES012706) “O3 & LPS-induced airway inflammation in humans *in vivo”* $205,632/year direct costs 5 year project, Role Principal Investigator, Percent Effort: 5% (9/1/2004-8/31/2009)

National Institutes of Health (NHLBI-RO1 HL080337) Airway Biology of Acute Asthma: Translational Studies. $350,000/year direct costs, 4 year project, Role Principal Investigator. Percent Effort 15% 4/1/2005-3/31/2009.

Environmental Protection Agency CR829522 "Health effects of environmental pollutants in humans." Includes NIEHS IAG Supplement to Environmental Protection Agency (Philip Bromberg, M.D., Project Manager.; David B. Peden, MD Deputy Project Manager-essential personnel), 5/15/01-5/15/06 Direct costs of entire project $1.2 million/year: Role: Deputy Principal Investigator, Percent effort: 10%

National Institutes of Health (NIAMS) 1U01AR052181-01. Health and Literacy in Child and Adult Assessment (Guess, H, PI). Role: Co-Investigator Percent Effort (5%)

National Institutes of Health: (NHLBI-R01HL062624). “Endotoxin and Bronchial Inflammation in Asthma” 2 R01 HL62624‑04. Total Direct Costs: $800,000 , 1/1/02-12/31/05 (on no cost extension through 12/06), Role PI, 20% effort.

Glaxo Smith Kline (D. Peden, PI). A 2-period, double-blind, randomized, clean air controlled, crossover study to evaluate the airway inflammation following challenge with inhaled ozone or clean air and intermittent exercise in patients with mild to moderated chronic obstructive pulmonary disease (COPD). $260,000 direct costs 7/1/03-12/05

National Institutes of Health-NHLBI "CD14 and LPS-induced inflammation in chronic bronchitis". RO1-HL66559 Role, PI: Total direct costs: $900,000.00, 9/29/00-9/28/04, 25% effort

Cystic Fibrosis Foundation (Wanda O’Neal, PI ) 03/01/01 - 02/29/04 CF Therapeutic Targets Revealed by Expression Arrays Project 2: Differential Expression of Inflammation Related Genes Annual direct costs: $91,401 Unpaid Consultant

Cystic Fibrosis Foundation (Carla Ribiero, PI) 11/15/00 - 11/14/03 Ca2+ Signals and Cystic Fibrosis Airway Inflammation Annual direct costs: $125,000 5% Effort

Center for Indoor Air Research: “Effect of airborne endotoxin exposure on bronchial reactivity to mite allergen in mild allergic asthmatics” (PI: Brian Boehlecke, M.D.) Role: Investigator, Total Direct Costs: $370,803.00, Active through 12/98, 5% Effort.

"A Randomized, Double-Blind, Double-Dummy, Parallel-Group Trial Assessing the Efficacy and Safety of Fluticasone Propionate 50 or 100 mcg BID Via the Multi-Dose Powder Inhaler, Fluticasone Propionate 50 or 100 mcg BID Via the Diskhaler« and Placebo in Subjects Aged 4-11 Years With Chronic Asthma", Glaxo Research Institute-FLTA2006, Role: P.I., Total costs: $56,000.10% Effort. 3/13/95-12/96.

“A 12 month, open-label trial to assess the long-term safety of albuterol 200 mcg QID in GR016642x propellant via the MDI in adolescent and adult subjects with asthma” Glaxo Wellcome Inc-SALA3003, Role: P.I., Total costs $72,976. 10% effort8/8/96-6/98

“A Randomized, Double-Blind, Double-Dummy, Parallel-Group, Clinical Trial Assessing the Safety and Efficacy of Albuterol Powder 200 mcg QID Via the Discus Versus Albuterol Aerosol 200 mcg (180 ex-actuator) QID via the Metered Dose Inhaler Versus Placebo in Pediatric Subjects Aged 4-11 Years with Asthma” Glaxo Wellcome Inc-SALA 3008, Role: PI, Total Direct Costs: $46,700, 10% Effort

Glaxo Wellcome Protocol SAS30001: “A stratified, randomized, double-blind, placebo controlled parallel group 12 week trial evaluating the safety and efficacy of the Salmeterol/Fluticasone Propionate combination in GR106642X MDI, 42/88 mcg BID and Salmeterol in propellant 11/12 MDI, 42mcg BID, Fluticasone Propionate in propellant 11/12 MDI, 88mcg BID, and placebo propellant GR106642X MDI in adult and adolescent subjects with asthma” Role: Principal Investigator (for this site), Total Direct Costs: $51,420 Begins 12/98-completion, 5% effort

Merck: "A randomized, double blind, multicenter study to evaluate the effect of adding either montelukast or salmeterol xinafoate to inhaled fluticasone in adult asthmatics" Role Principal Investigator (for this site), Budget Role: Principal Investigator (for this site), Total costs $62,712.00 5% effort

Centers for Disease Control and Prevention & National Heart Lung and Blood Institute (DHHS). 1-R01 HL62624‑04 “Endotoxin and Bronchial Inflammation in Asthma” Total Direct Costs: $732,100, 1/1/99-12/31/01, Role PI, 35% effort.

Environmental Protection Agency "Health effects of exposure to air pollutants in humans." (Philip Bromberg, M.D., P.I.), U.S. CR-824915 5/16/96-5/15/01 Direct costs of entire project: $1,448,389.00/year Role: Co-Principal Investigator, Percent effort: 31.5%

National Institutes of Health (NHLBI) “Viruses and Epithelial Chemokines in Asthmatic Children” (PI: Terry Noah, MD) Role: Co-Investigator, Total Direct Costs: $675,000 7/01/98-6/30/03, 10% Effort

**Investigational New Drug Applications with the FDA:**

BB-9998: “Airway Response to Clinical Center Reference Endotoxin in Healthy Adults”

BB-10790: “Airway Response to House Dust Mite Allergen”

71475: “Airway Response to Ozone Exposure”

BB-13004: "Airway response to Clinical Center Reference Endotoxin in Adults using Vitamin and Nutritional Supplements".

BB-13010: "Effect of house dust mite allergen challenge in persons using nutritional supplements"

BB-13086: "Phase 1 Study of *Dermatophagoides farinae* inhalation in humans"

**Professional Service:**

**State of North Carolina**

Commissioner on the North Carolina Environmental Management Commission 5/8/2008-6/30/2013

**To discipline (Pediatrics, Allergy & Immunology, and Environmental Research):**

Professional Society Memberships:

Fellow, American Academy of Pediatrics

Fellow, American Academy of Allergy, Asthma and Immunology

Fellow, American College of Allergy, Asthma and Immunology

Member, American Thoracic Society

Member, North Carolina Thoracic Society

Member, Society for Pediatric Research

Member, Clinical Immunology Society

Member, Society of Toxicology

Member, American Pediatric Society

American Board of Allergy and Immunology (1/1/2003-12/31/2008):

Elected Co-chair elect, 2004, Co-chair 2005 and Chair for 2006

Examination Co-Chair for the 2006 examination

Elected as a Director of the American Board of Allergy and Immunology, term 1/1/2003-12/31/2008

ACGME-Residency Review Committee for Allergy and Immunology

 Elected as Vice Chair & Committee Member, 1/2008-6/2014

 Elected as Chair of the RRC for the term 7/1/2011-6/30/2014

United States Environmental Protection Agency Regulatory Review Panels

Appointed to the EPA Clean Air Science Advisory Committee-Augmented for Sulfur Oxides Panel, 2/2014, still serving

Appointed to the EPA Clean Air Science Advisory Committee Particulate Matter Review Panel (2015-2018)

Food and Drug Administration Regulatory Review Panels:

Appointed to the Allergenic Products Advisory Committee, October, 2014

Appointed to the Allergenic Products Advisory Committee as Chair, 8/2018-8/2020

National Institutes of Health/EPA Funding reviews:

Regular member, Infectious Diseases, Reproductive Health, Asthma and Pulmonary (IRAP) Conditions Study Section, CSR, NIH term 7/1/2012-6/30/2016

Individual Meetings:

Member, Meeting 2019/01 ZAI1-PTM-I-J1, 9/24/2018 (NIAID)

Member, Meeting 2018/10 ZTR1-CI-9-01, 6/14/2018 (U54/KL2, CTSA, NCATS)

Member, Meeting 2018/05 ZAT1-VS-08, 3/22/18 (NCCIH)

Member, Meeting 2018/05 ZES1-JAB-S-R1 2/15/2018 (NIEHS)

Member, Meeting 2017/12, HLBP, 11/3/2017 (P01, NHLBI)

Chair, Meeting 2017/09 ZAI1-PA-I-J1 (AADCRC U19, NIAID)

Member, Meeting 2017/08 ZHL1-CSR-Q-S1,NHLBI 7/17/2017

Member, Meeting 2017/05, ZTR1-CI-8-01, NCATS (CTSA review) 2/16/2017

Member, Meeting 2017/05, HLBP, 1/11/2017 (translational P01, NHLBI)

Member, Meeting 2017/01, HLBP, 10/4/2016 (P01, NHLBI)

Co-Chair, Meeting 2016/10 IRAP

Member, Meeting 2016/05 ZHL1-PPG-S-M1

Chair, Meeting 2016/05 ZAI1-LAR-I-M1 (AADCRC U19, NIAID)

Member, Meeting 2016/05 IRAP

Member, Meeting 2016/01 ZAT1-SM-38, NCCIH

Member, Meeting 2016/01 IRAP

Member, Meeting 2015/10 IRAP

Member, Meeting 2015/10 HLBP

Member, Meeting 2015/10 IRAP

Member, Meeting 2015/01 ZAI1-QV-I-J1, NIAID

Member, Meeting 2015/01 IRAP

Member, Meeting 2015/01 HLBP

Member, Meeting 2014/10 IRAP

Member, Meeting 2014/10 HLBP, NHLBI

Member, Meeting 2014/05 ZAI1-MM-I-M2, NIAID

Member, IRAP, 12/17/2013, CSR

Member, ZAI1-QV-I-J2, 12/11/2013, NIAID

Member, IRAP, 06/25/2013, CSR

Member, HLBP, 05/13/2013, NHLBI

Chair, ZTR1-CI-2-01, 02/13/2013, NCATS

Member, HLBP, 10/17/2012, NHLBI

Member, IRAP, 10/04/2012, CSR

Member, ZAI1-MFH-I-J2, 09/27/2012, NIAID

Member, HLBP, 08/31/2012, NHLBI

Member, HLBP, 04/27/2012, NHLBI

Member, ZHL1 -CSR -J -(M3), 04/16/2012, NHLBI

Member, HLBP, 04/27/2012, NHLBI

Member, ZHL1 -CSR -H -(M1) 03/04/2011, NHLBI

Member, 2012/01 HLBP 10/06/2011, NHLBI PPG

Member, 2011/05 ZAI1 -WFD -I -(M2), 03/14/2011, NIAID

Member, 2011/05 ZHL1 -CSR -H -(M1) 03/04/2011, NHLBI

Member, ZRG1 CVRS-J 02 M, Member Conflicts: Asthma, Lung Immunology, and Lung Physiology 2/23/2011

Member, 2011/05 HLBP -(02), PPG Review 1/27/2011

Member, NIH/NHLBI PPG review, 9/14/2010

Member, NIH/NHLBI PPG review, 2/18/2010

NHLBI RO1 Review, 12/14/2009

NCCAM, ZAT1 -RB -(02), 2009/10

NCCAM Review Meeting, 7/15/2009

Chair, Clinical Science SEP ZAT1, NCCAM RB 01 6/12/2009

Member, NCRR Special Emphasis Panel, ZRR1 CR-1(01)CTSA 1 02/10/09

Member, Clinical Trials Review Group, NHLBI, June 2008

Chair, Clinical Science Study Section (R21), NCCAM June, 2008

Chair, Clinical Science Study Section (R21), NCCAM Feb, 2008

Chair, Clinical Science Study Section (R21), NCCAM Oct, 2007

Chair, Clinical Science Study Section (R21) 2007/1 ZAT1 NCCAM June 4-5, 2007

Member, PPG review, HLBP workgroup, NHLBI, April 3, 2007

Chair, ZAT1 JH (21) Special Emphasis Panel (Teleconference), NCCAM, 3/14/2007

Chair, Clinical Science Study Section (R21) 2007/1ZAT1JH (18), NCCAM 10/30/06

Member, Special Emphasis Panel DCES-001 Directors Challenge, NIEHS, 8/15.06

Chair, Clinical Science Study Section (R21) 2006/10 ZAT1 JH (16), June 12-13 2006

Member, NCCAM Clinical Science Study Section (R21) ZAT1 JH (15), Feb13 2006

Participant, NIEHS Strategic Planning Forum, Oct 17-18, 2005

Chair; Special Emphasis Panel (ZAT G 15 1) CERC Program 7/12/2005

Member: K23 Award Review Special Emphasis Panel (ZES1 LKB-A) 12/6/2004

Ad hoc Member: Lung Injury, Repair and Remodeling (LIRR) Study Section, 6/8/04

Member: NIEHS Special Emphasis Panel (ZES1 LKB-E(CA)) for RFA ES-03-010 The role of Air Pollutants in Cardiovascular Disease, March 4-5, 2004

Member: NHLBI SEP (ZHL1 CSR-L (M1)) NHLBI Childhood Asthma Research and Education (CARE) Network, February 22, 2004

Member: EPA Review panel of the National Urban Air Toxics Center, 9/17/2003

Member: NIH, CSR Conflict Special Emphasis Panel ZRG1 SSS3 02, 6/17/2003

Member: NIEHS Special Study Section (ZES1 LWJ-B-(DU)) PO1 application, February 26-28, 2003 NIEHS

Member: NHLBI Special Emphasis Panel (ZHL1 CSR - P(S2)) Centers for Reducing Asthma Disparities 02-006, July 18, 2002

Member: Immunology IRG Special Study Section 4 (ZRG1 SSS-4) PO1 application, April 23, 2002, NIH

Member: EPA Grant Review Panel for the Mickey Leland Air Toxics Center, Houston, TX, 2001

Member: Special Emphasis Panel: RFA AI-00-012: Asthma and Allergic Diseases Centers; April 9-11, 2001, NIAID

Chairman: Special Emphasis Panel for SBIR: Topics 72 and 73, NIEHS; 2/2000

Member: Special Emphasis Panel: RFA AI-96-005: Asthma, Allergic and Immunologic Diseases Cooperative Research Centers (AAIDCRC); NIAID, 6/1997

Editorial Appointments:

 3/13-date: Editor-in-Chief, ***Current Allergy and Asthma Reports***

 3/05-date: Associate Editor for the ***Journal of Allergy and Clinical Immunology***

 3/03-date: Editorial Board for the ***Journal of Allergy and Clinical Immunology***

 5/04-2010: Editorial Board for the ***Annals of Allergy and Clinical Immunology***

1/02-12/2004: Immunotoxicology/Environmental Section Editor for ***Clinical Immunology***

 Ad Hoc Reviewer:

 ***Science Translational Research***

 ***New England Journal of Medicine***

 ***American Journal of Respiratory and Critical Care Medicine***

 ***Journal of Pediatrics***

 ***American Journal of Respiratory Cell and Molecular Biology***

 ***Journal of Applied Physiology***

 ***American Journal of Physiology***

 ***Environmental Health Perspectives***

 ***Journal of Clinical Investigation***

 ***Experimental Lung Research***

 ***Journal of the American Medical Association***

 ***Clinical and Experimental Allergy***

 ***Journal of Immunology***

 ***Journal of Allergy and Clinical Immunology***

 ***Toxicological Sciences***

 ***Environmental Research***

 ***Annals of Allergy, Asthma and Immunology***

Committee duties in national organizations:

**American Academy of Allergy, Asthma and Immunology:**

1. Elected to the Presidential Track of the American Academy of Allergy, Asthma and Immunology, Secretary-Treasurer 2015-2016, President-Elect 2016-2017, President 2017-2018, and Past President 2018-2019.
2. At large member, Executive Committee Board of Directors, the American Academy of Allergy, Asthma and Immunology 3/2012-3/2013
3. Board of Directors, the American Academy of Allergy, Asthma and Immunology, term 3/2010-3/2014
4. Pediatric Councilor, Executive Committee-Program Directors Assembly 3/2008-3/2010.
5. Member: Air Pollution Committee 1993-date
6. Prior member of the following Committees:
	1. Vice Chair; Complementary and Alternative Medicine Committee 3/2008-3/2009
	2. Rhinitis, Academic Grants, ERT Grants
	3. Chair: Air Pollution Committee through 2002
	4. Officer of the Environmental and Occupational Diseases Interest Section:
		1. Chair, 3/2005-2007,
		2. Vice Chair 3/2003-2005,
		3. Secretary 2001-2003
	5. Chair: Workshops Committee through 2001

**American Thoracic Society:**

 Member: Environmental and Occupational Health (EOH) Assembly

 Program Committee Member, Environmental and Occupational Health Assembly

**Consultancies and Invited Workshops:**

1. Scientific Director review committee for NIEHS, January and February 2019
2. Executive Committee, NHLBI Precision Interventions for Severe and/or Exacerbation-Prone Asthma (PrecISE) Network 9/2017-date
3. External Advisory Committee, Environmental Polymorphism Registry, NIEHS 11/2016
4. Member, Search Committee, Director for Clinical Research, NIEHS, 2012-13
5. Scientific Advisory Board, NIEHS funded P30 Center, Johns Hopkins University Bloomberg School of Public Health, ongoing through 2013
6. External Advisory Board, NIEHS funded P30 Center, Rutgers University, ongoing through 2016
7. Member, Search Committee, Director of Intramural Research, NIEHS, 2010
8. NIAID/NHLBI Asthma Outcomes Workshop, Co-Chair Exacerbations Committee 3/17/2010, Bethesda, MD
9. Workshop on Harmonization of Human Clinical Chamber Air pollution Exposure Studies, NIEHS, 3/31/2010, RTP, NC
10. Workshop on Environmental Exposure Units, NIAID, 6/18/2010, Bethesda, MD
11. Scientific Advisory Board, Helmholtz Zentrum München-German Research Center for Environmental Health (GmbH), Munich, Bavaria, Germany, through 2012

State Committees:

 North Carolina Thoracic Society/American Lung Association:

 Chairman: Asthma Camp Committee (9/1992-9/2000)

**Within UNC-Chapel Hill**

University of North Carolina School of Medicine:

Committee Service:

 Member, Chair Search Committee, Department of Genetics, 2017-18.

Chair, Review Committee for the Director of the CIDD (5 year review), Fall 2015

Co-Chair, Chair Search Committee, Department of Cell Biology & Physiology, 2012-2013

Co-Chair, Ad Hoc Committee for Review of the Cell & Molecular Physiology Department, Jan-Feb/2013

Member, NC Children’s Hospital Strategic Plan Steering Committee, 2012-13

Member, Department of Pediatrics Strategic Plan Steering Committee, 2012-13

Member, School of Medicine Strategic Plan Steering Committee 2012-2013

 Ad Hoc Chair, Scientific Integrity Review, UNC School of Medicine, 2009

 Member, Research Advisory Committee, UNC School of Medicine (9/2007-date)

Member, Chair Search Committee, Department of Microbiology/Immunology (6/2007-12/2007)

 Dean’s Advisory Committee (2002-present)

 Conflict of Interest Committee (1998-2002)

 General Clinical Research Center Advisory Committee (1992-1997)

Attending Duties (Current):

* + - 1. Director of the Pediatric Asthma, Allergy & Immunology Clinic (weekly)
			2. Pediatric Allergy & Clinical Immunology inpatient consultation and attending service (year round), serves both a clinical and teaching role.

Attending Duties (Previous):

1. General Pediatric Service (supervising and teaching pediatric housestaff and students in required pediatric inpatient service rotation-1month/year 1993-2006)
2. Pediatric Pulmonary Medicine inpatient consultation and admitting service (2 weeks/year 1996-2010, supervising and teaching pediatric house staff and students in this elective pediatric inpatient & outpatient rotation)

Programmatic Activities (Clinical):

1. Chair of the Children's Asthma Management Program Workgroup (Department of Pediatrics and North Carolina Children's Hospital, 2000-2006)
2. UNC Hospitals Asthma Workgroup (ongoing)
3. UNC Children’s Hospital Outpatient Children’s Implementation Group (January 2015-present)
4. Subspecialty Clinic Task Force for the Department of Pediatrics

University of North Carolina at Chapel Hill-Campus Wide:

Faculty Advisor: Carolina Judo Club at UNC (1994-present)

Faculty Advisory Council, UNC Institute for the Environment (2005-present)

Member, Program Steering Committee, Carolina Environmental Program (7/2003-4/2007)

**Research Statement:**

My primary research focus is the impact of environmental agents and pollutants on respiratory and systemic inflammation and physiology, which impacts airway diseases such as asthma, COPD, inhalational injury and airway infection as well as triggering cardiovascular events. Our efforts have led to identification of personal mitigation strategies (chemoprevention, personal monitoring) for pollutant-induced disease, providing scientific support for regulatory approaches to mitigate pollutant-induced disease at the state and national level. We also have identified and examined genetic, biological, behavioral and societal risk factors that increase risk for pollutant-induced disease. These studies are undertaken within a unique collaborative relationship with the Division of Environmental Public Health of the National Health and Environmental and Effects Research Laboratory of the US EPA. We have also had significant collaborations with NIEHS.

My second (and related) research focus is examination of inflammatory processes and mechanisms in the respiratory tract and extending basic science findings to humans. This includes developing and performing innovative and high quality pre-clinical and clinical investigation of novel treatments for lung and allergic diseases.

These research interests are broadly focused on the biology of airway and systemic inflammation and lung function in humans, with emphasis on asthma, allergic disease and immunological processes in the lung, employing translational, clinical and epidemiological methods to examine these questions with four interrelated foci of interest. Of note, I have developed a number of model airway challenge protocols with ozone, endotoxin, particulate matter and allergen, which allows for screening of potential interventions, testing sensor devices, and identification/confirmation or genetic or physiologic risk factors for pollutant-induced and airway disease. In general, the strength of my research capabilities is in carrying out translational and clinical investigation.

In directing the UNC Center for Environmental Medicine, Asthma and Lung Biology, I also am committed to developing programs and systems by which investigators with translational, cellular, molecular, epidemiological, behavioral and engineering skills work in concert to address these questions. In addition to our long standing collaborations with the EPA, we have undertaken a collaboration with North Carolina State University engineers, resulting in my being named as Medical Director of the NSF Nanosystems Engineering Research Center for Advanced Self-Sustaining Integrated Sensor Technologies (ASSIST) which is led by engineers at North Carolina State University, focused on developing personal monitors for environmental exposures and physiological responses. This effort also involves significant collaborations at the University of Virginia, the Pennsylvania State University, Florida International University and industry partners. Our role is to identify medical applications (mHealth, research and disease specific applications) and do initial phase I testing of developed monitors using our environmental challenge capabilities.

The CEMALB is also one of the founding members of the new Marsico Lung Institute, led by Richard Boucher, MD Director of the Cystic Fibrosis/Pulmonary Research and Treatment Center. This builds on our collaborations with the CF center in translational research on airway diseases, and also includes the medical and pediatric pulmonary divisions. The Marsico Lung Institute has developed a non-profit research company, Spirovation, to catalyze early phase development of lung therapies.

These experiences, coupled with my clinical expertise in pediatrics and allergy/immunology (across all ages) has led to my involvement with the NC Translational and Clinical Sciences Institute, initially leading the Child Health Core, then the Patient and Clinical Interactions Resource (which now includes the Child Health Service, the Clinical and Translational Research Center and Patient Recruitment Service). More recently, my experience in collaborating across a wide range of disciplines (immunology, cell biology, toxicology, sociology, psychology, burn surgery, and engineering), co-chairing both the review leading to the founding of the Department of Cell Biology and Physiology and the search for its inaugural chair, and the alignment of the Curriculum in Toxicology (Directed by Ilona Jaspers) with the Center for Environmental Medicine, Asthma and Lung Biology have led to my being appointed to an institutional role for translational research.

This role involves my leading the Team Science service of the NC Translational and Clinical Sciences Institute and serving in the School of Medicine Office of Research as Senior Associate Dean for Translational Research. In this research leadership role, I work to identify areas in which multi-disciplinary translational team approaches can be employed to address important health care and environmental questions and needs. This draws on my personal research and leadership experience, with all levels of faculty and researcher.

**Teaching Statement:**

During my medical and scientific education, I have had many mentors and role models to look to in developing my teaching style and methods. I have had opportunity to examine teaching in the form of formal lectures, "apprenticeship"-type activities (inpatient ward rotations, graduate school laboratory work), mass media presentations and small group discussion formats. In almost all of these formats, I found that teachers who were able to articulate a respect for the needs and viewpoint of the learners in the audience were almost always the most effective teachers. Their teaching style, be it lecture, ward rotation or other venue, would engage interaction with the audience and invite questions or comments. Conversely, lectures that were essentially restatement of items in textbooks were usually not effective. Using these broad examples, I have tried to employ an interactive, open style of course and subject matter presentation.

In addition to the teaching style, I think it is important to outline how the material being presented may be useful for the learners. That is different from simply mandating that it is important. For example, I will point out examples how the subject matter may be employed in practical situations that may be faced by the members of the learner audience. When presenting a lecture, I try to find areas of common understanding between the learning audience and myself.

Given that my area of expertise is allergy and clinical immunology, this often involves explaining immune response, relating it to clinical states that the learners (usually medical or other health care students) have some experience, and then reinforcing how immune response is relevant to that disease state. I take a similar approach when speaking about allergic disorders. I also invite questions and interaction, both to engage the audience and also to be confident that the initial teaching points are generally understood so that they can be built upon in subsequent discussion.

I also feel it is essential to not simply outline the "basics" of a given topic, but to incorporate very new information, including material from current literature searches. This is important not only to keep the lecture current, but also to demonstrate that no field is ever completely understood and that ongoing review is essential to continued competence in a given area. One very real benefit I get from educational activity is the opportunity to update my own fund of knowledge. Likewise, an interactive teaching style often leads to questions from learners that require real thought and investigation on my part to address. This process not only allows advancement of didactic knowledge, but also reinforces to the learner the value of their point of view in the learning process.

In 2005, I accepted the first fellows into the Allergy and Immunology Training Program at UNC. We have rapidly grown to become one of the premier programs in the country, especially for persons interested in developing research expertise in phase I human studies focused on either food allergy or on the health effects of environmental pollutants. In the course of developing the allergy program, we have had to develop an entire curriculum which was approved both at the local (UNC) and national (ACGME) levels. This has included a didactic curriculum, methods of evaluation of trainees, faculty and staff, and clinical rotations. Since that time, new recruits (and a program graduate) now lead the program. I remain involved as division chief and as preceptor of the Pediatric Allergy/Immunology Continuity Clinic. To date, we have had 10 graduates and all have passed the national certifying examination.

I am also very involved in graduate student and post-doctoral fellow education. The Curriculum in Toxicology was aligned with the Center for Environmental Medicine, Asthma and Lung Biology in 2012. Even before that time, I was frequent asked to serve as Chair or Member of numerous Toxicology PhD and MS committees. Since then, I remain a frequently called upon member of the Toxicology Curriculum faculty to serve as a mentor or committee chair. I also provide organizational support to the program, which is led by Ilona Jaspers, Deputy Director of the CEMALB. I also have joint faculty status in Microbiology/Immunology and serve on committees for this department as well.

As noted above, we have an active Allergy/Immunology program, with required research activity for trainees. I have been the primary research mentor for a number of these fellows. I also am a senior faculty mentor for a number of junior faculty, who in turn are engaged in education of allergy/immunology and post-doctoral fellows.

Another significant opportunity for teaching is peer instruction at grand rounds and other didactic presentations (workshops and seminars and national specialty meetings). Key elements in an effective didactic presentation to peers are similar to those cited above. These include using a clear and organized lecture style, identifying key goals of the learners (what do they want out of the experience), addressing the goals of the audience, engaging the audience by asking questions and presenting very novel information. Also important is to be available after the presentation for a time so that people can pose specific questions or discuss specific clinical situations.

Finally, I view teaching for lay populations as a significant portion of my teaching activity. I have been involved in programs for the general public (asthma presentations in the Mini-Medical School program, EPA open house nights) and for school nurses and teachers (I review asthma and allergy issues for the Carrboro-Chapel Hill School System). I have also led development of an asthma action plan form and an asthma education booklet for use by patients (or parents of patients) with asthma. The asthma action plan is also a tool used by housestaff in daily management of their asthma patients.

In summary, I view teaching as a dynamic, interactive process. Engaging the learners and respecting their needs, knowledge and experience are important in developing a comfortable teaching environment. Encouraging active participation by learners and providing cutting edge information on a given topic are the most important goals for teaching.