## Edwin H. Kim

3004C Mary Ellen Jones Bldg 116 Manning Dr, CB 8035 Chapel Hill, NC 27599 edwinkim@email.unc.edu

Education	
7/2008 – 6/2011	Duke University School of Medicine, Durham, NC Fellowship: Allergy & Immunology
7/2005 – 6/2008	Duke University School of Medicine, Durham, NC Residency: Pediatrics
8/2001 – 6/2005	<b>UMDNJ-Robert Wood Johnson Medical School</b> , Piscataway Township, NJ MD
8/1999 – 6/2001	Harvard School of Public Health, Boston, MA MS, Health Policy & Management
8/1992 – 6/1996	Massachusetts Institute of Technology, Boston, MA BS, Biology
Professional Experie	nce – Employment History
7/2017 – present	Medical Director
, ,	University of North Carolina Allergy and Immunology Clinic, Chapel Hill, NC
10/2015 – present	Director University of North Carolina Food Allergy Initiative Research Group, Chapel Hill, NC
9/2015 – present	Program Director University of North Carolina Allergy and Immunology Fellowship Training Program, Chapel Hill, NC
7/2014 – 8/2015	Associate Program Director University of North Carolina Allergy and Immunology Fellowship Training Program, Chapel Hill, NC
9/2013 – present	Assistant Professor University of North Carolina School of Medicine, Department of Pediatrics, Division of Allergy, Immunology and Rheumatology, <i>Chapel Hill, NC</i>
9/2011 – present	Assistant Professor University of North Carolina School of Medicine, Department of Medicine, Division of Rheumatology, Allergy & Immunology, <i>Chapel Hill, NC</i>
11/2000 – 6/2001	Intern The Women's Care Network, Boston, MA e-health marketplace analysis for development of a web-based physician/patient interface

6/2000 – 8/2000	Intern Institute for Medical Quality, San Francisco, CA Assessment of California's third-party external review program for denials of medical reimbursement
10/1997 – 1/1999	<b>Research Technician</b> <b>Dana Farber Cancer Institute,</b> <i>Boston, MA</i> Development of a non-radioactive screen for mutations in the BRCA genes using heteroduplex PCR
6/1995 – 5/1997	Research Technician MIT Department of Biology, Boston, MA Investigation of the early development of the immune system in zebrafish
<b>Certifications/Lice</b>	nsure

Honors and Awards	
2009 – present	North Carolina Medical Board Full License #2008-00846
2010 – 2015	American Board of Pediatrics
2011 – present	American Board of Allergy and Immunology

<i>Teaching</i> 2006 – 2007	Intensive Care Nursery Outstanding Junior Resident Award, Duke Medical Center
2005 – 2006 Clinical	Exceptional Dedication to Medical Student Training Award, Duke Medical Center
2011 – present	"High 5" (3 written patient commendations), Patient Relations, UNC Health Care
2005 – 2011	"Service Champion" (8 written patient commendations), Patient-Visitor Relations, Duke
	Medical Center

# Bibliography and Products of Scholarship

## **Refereed Papers/Articles**

**EH Kim**, LYang, P Ye, R Guo, Q Li, MD Kulis, AW Burks. Long-Term Sublingual Immunotherapy for Peanut Allergy in Children: Clinical and Immunologic Evidence of Desensitization. *J Allergy Clin Immunol*. 2019, doi: 10.1016/j.jaci.2019.07.030.

BC Remington, T Krone, **EH Kim**, JA Bird, TD Green, G Lack, DM Fleischer, SJ Koppelman. Estimated Risk Reduction to Packaged Food Reactions by Epicutaneous Immunotherapy (EPIT) for Peanut Allergy. *Ann Allergy Asthma Immunol*. 2019, doi: 10.1016/j.anai.2019.08.007.

DM Fleischer, M Greenhawt, G Sussman, P Bégin, A Nowak-Wegrzyn, D Petroni, K Beyer, T Brown-Whitehorn, J Hebert, JO Hourihane, DE Campbell, S Leonard, RS Chinthrajah, JA Pongracic, SM Jones, L Lange, H Chong, TD Green, R Wood, A Cheema, SL Prescott, P Smith, W Yang, ES Chan, A Byrne, A Assa'ad, JA Bird, **EH Kim**, L Schneider, CM Davis, BJ Lanser, R Lambert, W Shreffler. Effect of Epicutaneous Immunotherapy vs Placebo on Reaction to Peanut Protein Ingestion Among Children With Peanut Allergy: The PEPITES Randomized Clinical Trial. *JAMA*. 2019 Feb 22. doi: 10.1001/jama.2019.1113.

Q Cook, **E Kim.** Update on Peanut Allergy: Prevention and Immunotherapy. *Allergy Asthma Proc*. 2019 Jan 1;40(1):14-20. doi: 10.2500/aap.2019.40.4190.

P Gamage, C McMahan; M Chaudhari, **E Kim**, M Kosorok. A proportional hazards model for intervalcensored data subject to instantaneous failures. *Lifetime Data Anal.* 2019 Feb 23. doi: 10.1007/s10985-019-09467-z.

BP Vickery, A Vereda, TB Casale, K Beyer, G du Toit, JO Hourihane, SM Jones, WG Shreffler, A Marcantonio, R Zawadzki, L Sher, WW Carr, S Fineman, L Greos, R Rachid, MD Ibáñez, S Tilles, AH Assa'ad, C Nilsson, N Rupp, MJ Welch, G Sussman, S Chinthrajah, K Blumchen, E Sher, JM Spergel, FE Leickly, S Zielen, J Wang, GM Sanders, RA Wood, A Cheema, C Bindslev-Jensen, S Leonard, R Kachru, DT Johnston, FC Hampel, **EH Kim**, A Anagnostou, JA Pongracic, M Ben-Shoshan, HP Sharma, A Stillerman, HH Windom, WH Yang, A Muraro, JM Zubeldia, V Sharma, MJ Dorsey, HJ Chong, J Ohayon, JA Bird, TF Carr, D Siri, M Fernández-Rivas, DK Jeong, DM Fleischer, JA Lieberman, AEJ Dubois, M Tsoumani, CE Ciaccio, JM Portnoy, LE Mansfield, SB Fritz, BJ Lanser, J Matz, HNG Oude Elberink, P Varshney, SG Dilly, DC Adelman, AW Burks. AR101 Oral Immunotherapy for Peanut Allergy. *N Eng J Med*. 2018; 379:1991-2001. doi: 10.1056/NEJMoa1812856.

M Kulis, X Yue, R Guo, H Zhang, K Orgel, P Ye, Q Li, Y Liu, **E Kim**, A Burks, B Vickery. High and Low Dose Oral Immunotherapy Similarly Suppress Pro-Allergic Cytokines and Basophil Activation in Young Children. *Clin Exp Allergy*. 2018; doi: 10.1111/cea.13256

M Chaudhari, **EH Kim**, PW Gamage, CS McMahan, MR Kosorok. Study Design with Staggered Sampling Times for Evaluating Sustained Unresponsiveness to Peanut Sublingual Immunotherapy. *Stat Med*. 2018; 37:3944–3958.

WG Shreffler, JL Baumert, BC Remington, SJ Koppelman, C Dinakar, DM Fleischer, **E Kim**, SA Tilles, JM Spergel. The importance of reducing risk in peanut allergy: Current and future therapies. *Ann Allergy Asthma Immunol.* 2018; 120:124–127.

JA Bird, J Spergel, S Jones, R Rachid, A Assa'ad, J Wang, SA Leonard, S Laubach, **EH Kim**, BP Vickery, BP Davis, J Heimall, A Cianferoni, AJ MacGinnitie, E Crestani, W Burks. Efficacy and safety of AR101 in oral immunotherapy for peanut allergy: results of ARC001, a randomized, double-blind, placebo-controlled Phase-2 clinical trial. *J Allergy Clin Immunol In Pract*. 2018; 6:476-485.

HX Chen, R Blasiak, **E Kim**, R Padilla, DA Culton. Triggers of oral lichen planus flares and the potential role of trigger avoidance in disease management. *Oral Surg Oral Med Oral Pathol Oral Radiol*. 2017; 124:248-252.

BP Vickery, JP Berglund, CM Burk, JP Fine, **EH Kim**, JI Kim, CA Keet, M Kulis, KG Orgel, R Guo, PH Steele, YV Virkud, P Ye, BL Wright, RA Wood, AW Burks. Early oral immunotherapy in peanut-allergic preschool children is safe and highly effective. *J Allergy Clin Immunol*. 2017; 139(1):173-181.

A Hamad, **EH Kim**. Early Introduction of Allergenic Foods is Safe and May Be Beneficial. *J Allergy Clin Immunol In Pract.* 2016; 5(2):531-532.

C Burk, M Kulis, N Leung, **EH Kim**, AW Burks, BP Vickery. Utility of component analyses in subjects undergoing sublingual immunotherapy for peanut allergy. *Clin Exp Allergy*. 2016; 46(2): 347-353.

SJ Chin, BP Vickery, MD Kulis, **EH Kim**, P Varshney, P Steele, J Kamilaris, AM Hiegel, SK Carlisle, PB Smith, AM Scurlock, SM Jones, AW Burks. Sublingual versus oral immunotherapy for peanut-allergic children: A retrospective comparison. *J Allergy Clin Immunol*. 2013; 132(2): 476-478.

MD Kulis, K Saba, **EH Kim**, JA Bird, N Kamilaris, BP Vickery, H Staats, AW Burks. Increased peanutspecific IgA in saliva correlates with food challenge outcomes following peanut sublingual immunotherapy. *J Allergy Clin Immunol*. 2012; 129(4):1159-1162.

**EH Kim**, JA Bird, MD Kulis, S Laubach, L Pons, WG Shreffler, PH Steele, J Kamilaris, BP Vickery, AW Burks. Sublingual immunotherapy for peanut allergy: clinical and immunologic evidence of desensitization. *J Allergy Clin Immunol.* 2011; 127(3):640-646.

TD Green, VS LaBelle, PH Steele, **EH Kim**, LA Lee, VS Mankad, LW Williams, KJ Anstrom, AW Burks. Clinical characteristics of peanut-allergic children: recent changes. *Pediatrics*. 2007; 120(6): 1304-1310.

N Danilova, VS Hohman, **EH Kim**, LA Steiner. Immunoglobulin variable-region diversity in the zebrafish. *Immunogenetics*. 2000; 52: 81-91.

#### **Published Abstracts**

**EH Kim**, SM Jones, AW Burks, RA Wood, SH Sicherer, DYM Leung, AK Henning, RW Lindblad, P Dawson, C Keet, AM Scurlock, HA Sampson. A 5-year Summary of Real-life Dietary Egg Consumption after Completion of a 4-year Egg OIT Protocol. *J Allergy Clin Immunol* 2019; 143(2) Supp: AB82. (oral abstract presenter)

W Carr, BP Vickery, R Zawadzki, NM Griffin, DC Adelman, A Ratnayake, **EH Kim**. Estimating the Probability of Tolerating Each Challenge Dose of Peanut Protein at Exit Double-Blind, Placebo-Controlled Food Challenge: Results From a Phase 3, Randomized, Double-Blind, Placebo-Controlled Trial (PALISADE) of AR101. *J Allergy Clin Immunol* 2019; 143(2) Supp: AB262. (poster presenter)

Q Cook, L Yang, A Hamad, H Barber, L Herlihy, AW Burks, **EH Kim** Dosing and Safety of Peanut Food Equivalents After Immunotherapy Trials. *J Allergy Clin Immunol* 2019; 143(2) Supp: AB244. (poster)

L Yang, Q Cook, A Hamad, H Barber, L Herlihy, AW Burks, **EH Kim**. Back to Life, Back to Reality – What Happens after Peanut Immunotherapy? A Long-Term Follow up Study on Perceptions of Safety and Lifestyle. *J Allergy Clin Immunol* 2019; 143(2) Supp: AB246. (poster)

L Herlihy, **EH Kim**, A Hamad, Q Cook, DK Hamilton, H Barber, AW Burks, BP Vickery. Five Year Follow-Up Of Early Intervention Peanut OIT Showed Characteristics of Sustained and Prolonged Clinical Benefit. *J Allergy Clin Immunol* 2019; 143(2) Supp: AB264. (poster)

A Penumarti, N Szczepanski, J Kesselring, E Gabel, R Sheth, JP Berglund, **EH Kim**, AW Burks, MD Kulis. Irradiated Almond Flour Meets Established Criteria for use in Oral Immunotherapy. *J Allergy Clin Immunol* 2019; 143(2) Supp: AB244. (poster)

M Chaudhari, **E Kim**. Study Design with Staggered Sampling Times for Evaluating Sustained Unresponsiveness to Peanut Sublingual Immunotherapy. *J Allergy Clin Immunol* 2018; 141(2) Supp: AB88. (oral abstract)

A Hamad, **E Kim**. A novel assessment of sustained unresponsiveness (SU) after long term sublingual immunotherapy (SLIT) in peanut allergic children: results of a 4 year phase II clinical trial. *J Allergy Clin Immunol* 2018; 141(2) Supp: AB200. (featured poster)

A Penumarti, **E Kim**. Impact of Irradiation on the Protein Content and Microbial Levels of Sesame Seed Flour for use in Oral Immunotherapy. *J Allergy Clin Immunol* 2018; 141(2) Supp: AB241. (poster)

D Hamilton, **E Kim**. Assessing the validity of an IRB approved REDCap web based clinical trials recruitment registry. *J Allergy Clin Immunol* 2018; 141(2) Supp: AB257. (poster)

M Kulis, **E Kim**. A mouse model of walnut allergy mimics key features of the human disease. *J Allergy Clin Immunol* 2018; 141(2) Supp: AB248. (poster)

Q Cook, **E Kim**. Characteristics of Preschool-Aged Children Currently Enrolled in a Phase II Double Blind Placebo Controlled Study of Peanut Sublingual Immunotherapy. *J Allergy Clin Immunol* 2018; 141 Supp: AB263. (poster)

L Yang, PH Steele, D Hamilton, S Bennick, L Herlihy, E Pitkin, AW Burks, **EH Kim**. Sustained Unresponsiveness After Sublingual Immunotherapy for Peanut-allergic Children. *J Allergy Clin Immunol*. 2017; 139(2) Supp: AB175. (oral abstract)

X Yue, M Kulis, H Zhang, R Guo, K Orgel, **E Kim**, AW Burks, BP Vickery. Low and High Dose Peanut OIT Similarly Suppress Th2 Cytokine and Basophil Activation Responses. *J Allergy Clin Immunol*. 2017; 139(2) Supp: AB562. (oral abstract, presenter)

A Penumarti, N Szczepanski, J Kesselring, E Gabel, **E Kim**, AW Burks, M Kulis. Impact of Microwaving on the Protein Content and Microbial Levels of Whole Wheat Flour for Use in Oral Immunotherapy. *J Allergy Clin Immunol*. 2017; 139(2) Supp: AB866. (oral abstract, presenter)

A Hamad, D Hamilton, P Steele, S Bennick, L Herlihy, E Pitkin, **E Kim**, AW Burks. Sublingual Peanut Immunotherapy: Role of duration and dose. *J Allergy Clin Immunol*. 2017; 139(2) Supp: AB61. (poster)

L Herlihy, S Bennick, D Hamilton, E Pitkin, **E Kim**. Controlled Asthma Not Correlated with Respiratory Symptoms During DBPCFCs (Double Blind Placebo Controlled Food Challenges) to Peanut in Children. *J Allergy Clin Immunol*. 2017; 139(2) Supp: AB420. (poster)

M Kulis, C Burk, X Yue, H Zhang, R Guo, K Orgel, P Ye, BP Vickery, **E Kim**, AW Burks. Six month course of peanut OIT leads to suppression of basophil activation which begins to wane within four weeks after OIT is stopped. *J Allergy Clin Immunol*. 2017; 139(2) Supp: AB430. (poster)

**EH Kim**, BP Vickery, A Radwan, AW Burks. Immunologic Effects of AR101 During Characterized Oral Desensitization Immunotherapy (CODIT) for Peanut Allergy. *Ann Allergy Asthma Immunol.* 2016; 117(5) Supp: O055. (oral abstract, presenter)

A Fatima, **EH Kim**. Eosinophilic Gastroenteritis in a Study of Sublingual Immunotherapy (SLIT) for Peanut Allergy. *Ann Allergy Asthma Immunol.* 2016; 117(5) Supp: P272. (poster)

P Ye, MD Kulis, RGuo, **EH Kim**, BP Vickery, AW Burks. Sublingual Immunotherapy (SLIT) Regulates the Expression of Transcription Factors and Interleukins in Peanut Allergic Children. *J Allergy Clin Immunol*. 2016; 137(2) Supp: AB194. (featured poster)

ME Breslin, DK Hamilton, R Guo, P Ye, X Jiang, P Stewart, S Chin, **EH Kim**, AW Burks. Basophil Activation and Peanut-Specific IgE Are Not Predictors of Threshold Dose during a Double-Blind Placebo-Controlled Food Challenge (DBPCFC). *J Allergy Clin Immunol*. 2016; 137(2) Supp: AB125. (poster)

JA Bird, JM Spergel, SM Jones, R Rachid, AH Assa'ad, J Wang, SA Leonard, SS Laubach, **EH Kim**, BP Vickery, B Davis, J Heimall, A Cianferoni, AJ MacGinnitie, E Crestani, RM Elfont, HA Sampson, AW Burks. A novel characterized peanut allergen formulation (AR101) for oral immunotherapy (OIT) induces

desensitization in peanut-allergic subjects: a Phase 2 clinical safety and efficacy study. *Allergy*, 2015; 70:110. (oral abstract)

**EH Kim**, PH Steele, MD Kulis, A Beavers, DK Hamilton, R Guo, BP Vickery, AW Burks. Peanut sublingual immunotherapy (SLIT) results in sustained unresponsiveness in a subset of peanut allergic children. *J Allergy Clin Immunol*. 2015; 135(2) Supp: AB155. (oral abstract)

**EH Kim**, SJ Chin, P Steele, J Kamilaris, N Kamilaris, C Burk, M Kulis, BP Vickery, AW Burks. Tolerance induction in an interim analysis of peanut sublingual immunotherapy. *J Allergy Clin Immunol*. 2013; 131(2) Supp: AB130. (oral abstract, presenter)

**EH Kim**, MD Kulis, BP Vickery, AW Burks. Induction of regulatory T cells after peanut sublingual immunotherapy. *J Allergy Clin Immunol*. 2012; 129(2) Supp: AB27. (poster, presenter)

**EH Kim**, JA Bird, MD Kulis, S Laubach, L Pons, WG Shreffler, PH Steele, J Kamilaris, BP Vickery, AW Burks. Evidence of Desensitization in a Study of Sublingual Immunotherapy for Peanut Allergy. *Clin Exp Allergy*. 2011; 41:1823. (oral abstract, presenter)

**EH Kim**, JA Bird, MD Kulis, S Laubach, L Pons, WG Shreffler, PH Steele, J Kamilaris, BP Vickery, AW Burks. Evidence of Desensitization by Sublingual Immunotherapy in Peanut-Allergic Children. *J Allergy Clin Immunol*. 2011; 127(2) Supp: AB72. (oral abstract, presenter)

**EH Kim**, JA Bird, PH Steele, J Kamilaris, AH Edie, BP Vickery, AW Burks. Safety of peanut sublingual immunotherapy (SLIT) in children with peanut allergy. *J Allergy Clin Immunol*. 2010; 125(2) Supp: AB20. (poster, presenter)

#### **Unrefereed Publications**

CP Parrish, **EH Kim**, JA Bird. Interventional Therapies for the Treatment of Food Allergy. *Immunol Allergy Clin N Am.* 2018; 38(1):77-88.

**EH Kim**, AW Burks. Chapter 18: Food Allergies. *Patterson's Allergic Diseases 8*<sup>th</sup> edition. L. Grammer & P Greenberger (editors). 2018;

S Commins, **EH Kim**, K Orgel, M Kulis. Peanut Allergy: New Developments and Clinical Implications. Curr Allergy Asthma Rep. 2016; 16:35.

**EH Kim**, AW Burks. Immunological basis of food allergy (IgE-mediated, Non-IgE-mediated, and tolerance. *Chemical Immunology and Allergy.* RA Wood (editors). 2015; 101:8-16.

**EH Kim**. Food Challenge. *Encyclopedia of Medical Immunology – Allergic Diseases.* IR Mackay, NR Rose (editors). 2014.

**EH Kim**, AW Burks. Oral and sublingual immunotherapy. *Current Treatment Options in Allergy*. M Worm, L Cox (editors). 2013; doi:10.1007/s40521-013-0004-7.

**EH Kim**, W Burks. Managing food allergy in childhood. *Curr Opin Pediatr*. 2012; 24:615-20. M Land, **EH Kim**, AW Burks. Oral desensitization for food hypersensitivity. *Immunol Allergy Clin N Am*. 2011; 31: 267-276.

R Firszt, **EH Kim**, L McWilliams, E Wu, SR Boden, S Chin. The role of pharmacogenomics in improving the management of asthma – CME exam. *J Allergy Clin Immunol*. 2010; 125: 303-304.

### **Grand Rounds Presentations**

3/21/2019	Immunotherapy for the treatment of Peanut Allergy. UNC Department of Pathology Grand Rounds. Chapel Hill, NC.
3/20/2019	Immunotherapy for Food Allergy. UNC Otolaryngology Grand Rounds. Chapel Hill, NC.
1/10/2019	Emerging Therapies for Peanut Allergy. New Jersey Medical School Allergy & Immunology Grand Rounds. Newark, NJ.
10/17/2018	Basics of Food allergy. NC AHEC New Hanover Medical Center Internal Medicine Grand Rounds. Wilmington, NC.
3/22/2018	Drug Allergies Affecting the Care of Inpatients. UNC Department of Medicine Grand Rounds. Chapel Hill, NC.
8/31/2017	General Pediatrician as Food Allergist? Review of the LEAP study for Peanut Allergy. UNC Department of Pediatrics Grand Rounds. Chapel Hill, NC.
4/15/2016	Learning Early About Peanut Allergy (LEAP). UNC Rheumatology, Allergy and Immunology Grand Rounds. Chapel Hill, NC.
10/15/2015	Food immunotherapy: Where are we now? Achoo! What's New? Pediatric Allergy Update Conference. Children's Hospital of the King's Daughters. Norfolk VA.
12/17/2014	Nut-free, gluten-free, red meat-free living? Making sense of food allergies. NC AHEC New Hanover Medical Center Internal Medicine Grand Rounds. Wilmington, NC.
5/21/2013	Advances in the diagnosis and treatment of chronic urticaria. NC AHEC, Carolinas Medical Center Internal Medicine Grand Rounds. Charlotte, NC.
8/31/2012	Chronic urticaria and angioedema. UNC Rheumatology, Allergy and Immunology Grand Rounds. Chapel Hill, NC.
4/29/2011	Evidence of Desensitization in a Study of Sublingual Immunotherapy for Peanut Allergy. UNC Rheumatology, Allergy and Immunology Grand Rounds, Chapel Hill, NC.
<i>Invited Lectures</i> 4/5/2019	Immunotherapy for Food Allergy. UNC Medical Alumni Council spring meeting. Chapel Hill, NC.
3/20/2019	Immunotherapy for Peanut Allergy: Retraining the Allergic Immune System. Durham Technical Community College Spring 2019 Science Seminar Series. Durham, NC.
2/25/2019	SLIT: Efficacy and Patient Selection. 2019 AAAAI annual scientific meeting. San Francisco, CA.
2/23/2019	Tips and Tricks on Teaching a New Generation of Learner. 2019 AAAAI annual scientific meeting. San Francisco, CA.
11/18/2018	The Pros and Cons of EPIT for Peanut. 2018 ACAAI annual scientific meeting. Seattle, WA.
11/3/2018	Food Allergy 101. FARECon featuring Teen Summit 2018. Arlington, VA.

10/26/2018	Update on Food Allergy Research. 2018 Children's Mercy Kansas City/ACAAI Conferences On-Line Allergy (COLA) conference series.
9/28/2018	Overview and Update on Immunotherapy for Food Allergy. New Jersey Allergy, Asthma and Immunology Society annual meeting. Oyster Bay, NJ.
6/23/2018	Overview and Update on Immunotherapy for Food Allergy. Louisiana Society of Allergy, Asthma & Immunology annual meeting. New Orleans, LA.
3/11/2018	The Food Allergy Epidemic: Current Landscape and Future Directions. 2018 UNC Kenan- Flagler Business School Wellness Day Keynote Lecture. Chapel Hill, NC.
3/10/2018	How clinicians and researchers are collaborating at UNC to develop treatments for debilitating food allergies. 2018 UNC Translational Medicine Symposium. Chapel Hill, NC.
3/2/2018	Food Allergy. 2018 AAAAI Chrysalis Project Program. Orlando, FL.
1/24/2018	Penicillin Allergy. UNC Pediatrics Noon Conference. Chapel Hill, NC.
1/19/2018	Basics of Food Allergy. UNC Pediatrics Noon Conference. Chapel Hill, NC.
10/1/2017	Overview and Update on Immunotherapy for Food Allergy. Illinois Society of Allergy, Asthma and Immunology annual meeting. Chicago, IL.
9/15/2017	Update on Food Allergy Research. 2017 Children's Mercy Kansas City/ACAAI Conferences On-Line Allergy (COLA) conference series.
9/12/2017	Innovative Approaches to Food Desensitization. 2017 Current Views in Allergy, Asthma and Immunology (Vol 45) program. Augusta University.
8/22/2017	Update on Local Anesthetic Allergy. Division of obstetric anesthesia faculty meeting. Chapel Hill, NC.
6/1/2017	Food Allergy Update. 2017 Eastern Allergy Conference. Palm Beach, FL.
6/1/2017	Pro/Con Debate: Is oral peanut desensitization ready for mainstream use in clinical practice? 2017 Eastern Allergy Conference. Palm Beach, FL.
2/16/2017	Updates on the Diagnosis and Treatment of Food Allergy. Duke Diet and Fitness Center guest lecture series. Durham, NC.
2/5/2017	Overview of Angioedema. UNC Internal Medicine noon conference. Chapel Hill, NC.
12/1/2016	Historical overview of immunotherapy and the emerging treatment landscape in peanut allergy. Aimmune Investor Research Symposium. New York, NY.
8/17/2016	Immunotherapy for the treatment of food allergy. UNC Gillings Department of Nutrition Continuing Education Webinar Series. Chapel Hill, NC.

8/17/2016	Pitfalls and pearls in the diagnosis of food allergy. UNC Gillings Department of Nutrition Continuing Education Webinar Series. Chapel Hill, NC.
6/16/2015	Overview of drug allergy. UNC Internal Medicine noon conference. Chapel Hill, NC.
3/18/2015	Update on angioedema. Charlotte AHEC and UNC SOM 39 <sup>th</sup> annual Internal Medicine Conference, Chapel Hill, NC.
3/25/2014	Food allergy: diagnostic and therapeutic challenges. UNC Eschelman School of Pharmacy Noon Lecture Series. Chapel Hill, NC.
3/21/2014	Reactions to food: Sorting out allergy from the rest. Charlotte AHEC and UNC SOM 38 <sup>th</sup> annual Internal Medicine Conference, Chapel Hill, NC.
1/22/2014	Alternative forms of immunotherapy. Duke Allergy and Immunology Wednesday Seminar Series. Durham, NC.
2/22/2013	Difficult Cases: Oral Food Challenges. 2013 AAAAI Annual Scientific Meeting. San Antonio, TX.
4/4/2012	Chronic urticaria and angioedema. Duke Allergy and Immunology Wednesday Seminar Series, Durham, NC.
3/14/2012	Urticaria and angioedema for the internist. Charlotte AHEC and UNC SOM 36 <sup>th</sup> annual Internal Medicine Conference, Chapel Hill, NC.

# Professional Service

Memberships/Commit	tees
2/2019 – present	Executive committee: pediatric counselor, AAAAI Program Directors Assembly
3/2018 – present	Member, World Allergy Organization (WAO) WinAIT committee
5/2017 – present	Member, AAAAI Core Curriculum Committee
4/2016 – present	Member, AAAAI CME/MOC Committee
3/2014 - 4/2016	Member, AAAAI Needs Assessment and Outcomes Committee
9/2012 – present	Member, AAAAI Food allergy, Anaphylaxis, Dermatology and Drug allergy Interest Group
7/2011 – present	Fellow of American Academy of Allergy, Asthma, and Immunology (AAAAI)
7/2011 – present	Fellow of American College of Allergy, Asthma, and Immunology (ACAAI)
Manuscript Reviews	
04/2019 – present	Journal of Allergy and Clinical Immunology
10/2013 – present	Journal of Allergy and Clinical Immunology In Practice
Service to University	
4/2018 – present	Department of Medicine Outpatient Leaders Group
6/2016 – present	Physician Champion – UNC Grateful Patient Program
6/2015 – 12/2015	Member, Carolina Value – School of Medicine Technology Transfer Implementation Team
9/2014 – 2/2015	Member, Academy of Educators – School of Medicine EPIC Utilization Committee
3/2014 - 4/2014	Superuser, Epic@UNC Project
1/2014 – present	Member, Thurston Arthritis Research Center and Division of Rheumatology, Allergy & Immunology 5-year Strategic Plan – Education Committee
8/2013 - 4/2014	Subject Matter Expert, Adult and Pediatric Allergy, Epic@UNC Project

7/2013 – 2/2014	Member, UNC – Streamlining the Referral Process Task Force
7/2013 – 2/2014	Member, UNC – Provider Review of Referrals Task Force