

**BIOGRAPHICAL SKETCH**

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NAME Shau-Ku Huang, Ph.D.		POSITION TITLE Associate Professor of Medicine	
eRA COMMONS USER NAME skhuang			
EDUCATION/TRAINING (Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.)			
INSTITUTION AND LOCATION	DEGREE (if applicable)	YEAR(s)	FIELD OF STUDY
Taipei Medical University, Taiwan	BS	1981	Medical Technology
The University of Vermont, Burlington, Vermont	MS	1985	Medical Technology
The University of Vermont, Burlington, Vermont	PhD	1988	Immunology
The Johns Hopkins University	Postdoc	1990	Immunogenetics

**Professional Experience**

1990 - 1992 **Instructor**, Department of Medicine, School of Medicine, Johns Hopkins University  
 1992 - 1998 **Assistant Professor**, Department of Medicine, School of Medicine, Johns Hopkins University  
 1997 - present **Faculty Member**, Graduate Program in Cellular and Molecular Medicine, Johns Hopkins University School of Medicine  
 1998 - present **Associate Professor**, Department of Medicine, School of Medicine, Johns Hopkins University  
 1999 - 2002 **Member**, Executive Committee, Immunology Council, Johns Hopkins University School of Medicine  
 2000 - present **Adjunct Professor**, Taipei Medical University, Taipei, Taiwan  
 2000 - 2004 **President**, Washington DC Chapter of the Society of Chinese Bioscientists in America (SCBA)  
 2001 **Member**, Special Emphasis Study Section, NIAID, NIH  
 2001 **Member**, NICHD Intramural Site Visit, Heritable Disorders Branch, NIH  
 2001 - present **Member**, Study Section, National Health Research Institute, Taiwan  
 2001 - present **Member**, Study Section, Genomics Medicine, National Science Council, Taiwan  
 2003 **Member**, Special Emphasis Study Section, NIAID, NIH  
 2004 - present **Member**, Board Directors, Mount-Jade Science and Technology Association, Washington DC Chapter  
 2004 **Member**, Special Emphasis Study Section, NIAID, NIH

**Honors and Awards**

1. The Irvington Institute for Medical Research Postdoctoral Fellowship Award.
2. Merrell Dow-American Academy of Allergy and Immunology Scholar in Allergy Award.

**Publications (Selected from a list of 98)**

1. **HUANG, S.K.**, P. Zwollo, and D.G. Marsh. "Class II MHC restriction specificity of human T-cell responses to a short ragweed pollen allergen, Amb a V". *Eur. J. Immunol.*, 21:1469, 1991.
2. **HUANG, S.K.** and D.G. Marsh. "Human T-cell responses to ragweed allergens, Amb V homologues". *Immunology*, 73:363, 1991.
3. Marsh D.G., P. Zwollo, P., and **S.K.HUANG**. Molecular genetics of human immune responsiveness to pollen allergens. *Eur. J. Resp.*, 4: 60s-67s, 1991.

4. Kumai M., G. Krish, D.G. Marsh, and **S.K. HUANG**. "Modulating effect of human monocyte Fc receptor on allergen induced T-cell responses". *Immunology*, 79:174, 1993.
5. Shinomyia, N., M. Kumai, D.G. Marsh, and **S.K. HUANG**. "Detection of specific IgE-secreting cells using an enzyme-linked immunospot assay". *J. Allergy and Clin. Immunol.*, 92:479, 1993.
6. Krishnaswamy G., M. Kumai, M. Liu, S. -N. Su, B. Stealey, D.G. Marsh, and **S.K. HUANG**. "Detection of cytokine transcripts in the bronchoalveolar lavage cells of patients with asthma". *Am. J. Resp. Cell Mol. Biol.*, 9:279, 1993.
7. **HUANG, S.K.**, Essayan D., G. Krish, Yi, M., Kumai, M., Xiao, H.-Q., Su S.-N., Liu M. "Detection of allergen- and mitogen-induced human cytokine transcripts using a competitive polymerase chain reaction". *J. Immunol. Methods*, 168:167, 1994.
8. Essayan, D., **S.K. HUANG**, Kagey-Sobotka, A., Udem, B., and Lichtenstein, L. "Modulation of antigen- and mitogen-induced proliferative responses of peripheral blood mononuclear cells by nonselective and isozyme selective cyclic nucleotide phosphodiesterase inhibitors", *J. Immunol.*, 153:3408, 1994.
9. **HUANG, S.K.**, M. Yi, E. Palmer, and D.G. Marsh. "A dominant T-cell receptor  $\alpha$ -gene expression in response to a short ragweed allergen, Amb a V". *J. Immunol.*, 154:6157, 1995.
10. **HUANG, S.K.**, Xiao, H.-Q., J. Kleine-Tebbe, D.G. Marsh, L.M. Lichtenstein, and M. C. Liu. "Interleukin-13 expression at the sites of allergen challenge of patients with asthma". *J. Immunol.*, 155:2688, 1995.
11. Gavett S., D. O'Hearn, X.-M. Li, **S.K. HUANG**, F. Finkelman, and M. Wills-Karp. "Interleukin-12 inhibits antigen-induced airway hyperresponsiveness, inflammation, and Th2 cytokine expression in mice". *J. Exp. Med.*, 182:1527, 1995.
12. Hsu, C.-H., K.-Y. Chua, M.-H. Tao, Y.-L. Lai, H.-D. Wu, **S.K. HUANG**, and K.-H. Hsieh. "Immunoprophylaxis of allergen-induced immunoglobulin E synthesis and airway hyperresponsiveness in vivo by gene vaccines". *Nature Medicine*, 2:540, 1996.
13. Essayan, D., Han, W.-F, Li, X.-M, Xiao, H.-Q, Kleine-Tebbe J., and **HUANG, S.K.** "Clonal diversity of interleukin-4 and interleukin-13 expression in human allergen-specific T lymphocytes". *J. Allergy Clin. Immunol.*, 98:1035, 1996.
14. Li, X.-M, Chopra, R.K., Chou, T.-Y., Schofield, B.H., Wills-Karp, M., and **HUANG, S.K.** "Mucosal IFN- $\gamma$ -gene transfer inhibits pulmonary allergic responses in mice". *J. Immunol. Cutting Edge*, 157:3216, 1996.
15. Krishnaswamy G., J. Smith, S. Srikanth, D. Chi, J.H. Kalbfleisch, and **S.K. HUANG**. "Lymphoblastoid interferon- $\alpha$  inhibits T cell proliferation and expression of eosinophil-activating cytokines". *J. Interferon Cytokine Res.*, 16:819, 1996.
16. Essayan, D., Kagey-Sobotka, A., Lichtenstein, L., and **HUANG, S.K.** "Differential regulation of human antigen-specific Th1 and Th2 lymphocyte responses by isozyme selective cyclic nucleotide phosphodiesterase (PDE) inhibitors". *J. Pharmacol. Ther.*, 282:505, 1997.
17. Li, X.-M, B.H. Schofield, Q.F. Wang, and **S.K. HUANG**. "Induction of pulmonary allergic responses in mice by antigen-specific Th2 cells". *J. Immunol.*, 160:1378, 1998.
18. Hizawa N., L.R. Freidhoff, Y.F. Chiu, E. Ehrlich, C.A. Luehr, J.L. Anderson, D.L. Duffy, G.M. Dunston, J.L. Weber, **S.K. HUANG**, K.C. Barnes, D.G. Marsh, and T.H. Beaty. "Genetic regulation of Dermatophagoides pteronyssinus-specific IgE responsiveness: A genome-wide multipoint linkage analysis in families recruited through two asthmatic sibs". *J. Allergy Clin. Immunol.*, 102:436, 1998.
19. Hizawa N., L.R. Freidhoff, E. Ehrlich, Y.F. Chiu, D.L. Duffy, C. Schou, G.M. Dunston, T.H. Beaty, D.G. Marsh, K.C. Barnes, and **S.K. HUANG**. "Genetic influences of chromosomes 5q31-q33 and 11q13 on specific IgE responsiveness to common inhaled allergens among African American families". *J. Allergy Clin. Immunol.*, 102:449, 1998.
20. Hizawa N., G. Collins, T. Rafnar, **S.K. HUANG**, D.L. Duffy, Weber J.L., L.R. Freidhoff, E. Ehrlich, D.G. Marsh, T. Beaty, and K.C. Barnes. "Linkage analysis of Dermatophagoides pteronyssinus (Der p)-specific IgE Responsiveness with polymorphic markers on chromosome 6p21 (HLAD region) in Caucasian families by Transmission/Disequilibrium Test (TDT)". *J. Allergy Clin. Immunol.* 102:443, 1998.
21. Essayan, D.M., G. Krishnaswamy, A. Oriente, L.M. Lichtenstein, and **S.K. HUANG**. "Differential regulation of antigen-induced IL-4 and IL-13 generation from T lymphocytes by Interferon- $\alpha$ ". *J. Allergy Clin. Immunol.*, 103:451, 1999.
22. Nickel, R.G., F.P. Saitta, L.R. Freidhoff, X.Y. Yu, E. Ehrlich, K. C. Barnes, T.H. Beaty, and **S.K. HUANG**. "Positional candidate gene approach and functional genomics strategy in atopy gene discovery". *Int. Arch. Allergy Immunol.*, 118:282, 1999.

23. Krishnendu, R., H-Q. Mao, **S.K. HUANG**, and K.W. Leong. "Oral gene delivery with chitosan-DNA nanoparticles generate immunologic protection in a murine model of peanut allergy". *Nature Med.*, 5:387, 1999.
24. Nickel, R.G., V. Casolaro, U. Wahn, K. Beyer, K.C. Barnes, B.S. Plunkett, L.R. Freidhoff, C. Sengler, J.R. Plitt, R.P. Schleimer, L. Caraballo, R.P. Naidu, T.H. Beaty, and **S.K. HUANG**. "Atopic dermatitis is associated with a functional mutation in the promoter of the CC chemokine RANTES". *J. Immunol.*, 164:1612, 2000.
25. Liu, X., R. Nickel, K. Beyer, U. Wahn, E. Ehrlich, L.R. Freidhoff, B. Bjorksten, T.H. Beaty, **S.K. HUANG**. "An IL13 coding region variant is associated with a high total serum IgE level and atopic dermatitis in the German Multicenter Atopy Study (MAS-90)". *J. Allergy Clin. Immunol.*, 106: 167, 2000.
26. Oriente, A., N.S. Fedarko, S.E. Pacocha, **S.K. HUANG**, L.M. Lichtenstein, and D.M. Essayan. "Interleukin-13 modulates collagen homeostasis in human skin and keloid fibroblasts". *J. Pharm. Exp. Ther.*, 292: 988, 2000.
27. Li, X.D., D.M. Essayan, M.C. Liu, T.H. Beaty, and **S.K. HUANG**. "Profiling of differential gene expression in activated, allergen-specific human Th2 cells". *Genes and Immunity*, 2:88, 2001.
28. Kawaguchi, M., F. Kokubu, H. Kuga, S. Matsukura, H. Hoshino, K. Ieki, T. Imai, M. Adachi, and **S.K. HUANG**. "Modulation of bronchial epithelial cells by IL-17". *J. Allergy Clin. Immunol.*, 108:804, 2001.
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31. Kawaguchi M, Onuchic LF, **S.K. HUANG**. Activation of extracellular signal-regulated kinase (ERK)1/2, but not p38 and c-Jun N-terminal kinase, is involved in signaling of a novel cytokine, ML-1. *J Biol Chem.* 277:15229-32, 2002.
32. **HUANG S.K.** RA Rasika, E Ehrlich, B Plunkett, X Liu, XD Li, F Malveaux, G Dunston, C Ober, M Blumenthal, E Bleecker, S Rich, T Beaty and CSGA. Evidence for asthma susceptibility loci on Chromosome 11 in an African American population. *Hum Genet*, 113:71-5, 2003.
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35. Kawaguchi, M, F Kokubu, H Kuga, S Matsukura, K Ieki, M Odaka, S Watanabe, S Suzuki, M Adachi, **SK HUANG**. Induction of granulocyte-macrophage colony-stimulating factor (GM-CSF) by a new cytokine, ML-1 (IL-17F), via Raf I-MEK-ERK pathway. *J. Allergy and Clin. Immunol.*, 114:444, 2004.
36. Hung CH, Chen LC, Zhang Z, Hung CH, Plunkett B, Myers AC, and **HUANG SK**. Regulation of Th2 responses by the pulmonary Clara cell secretory 10-kDa protein (CC10). *J. Allergy and Clin. Immunol.*, 114:664, 2004.
37. Huang JL, Gao PS, Mathias RA, TC Yao, LC Chen, ML Kuo, Hsu SC, Plunkett B, Togias A, Barnes KC, Stellato C, Beaty TH and **HUANG-SK**. Sequence variants of the gene encoding chemoattractant receptor expressed on Th2 cells (CRTH2) is associated with asthma and differentially influence the mRNA stability. *Hum. Mol. Genet.*, 13:2691, 2004.
38. Lee SA, Fitzgerald MS, **HUANG SK**, Duffourc M, Li C, Hall KH, Chi DS and Krishnaswamy G. Induction of IL-13 and MCP-1 in mast cells by IL-1 $\beta$  and TNF- $\alpha$ . *Am. J. Respir. Cell Mol. Biol.*, 31:283-291, 2004.
39. Oda, N, PB Canelos, DM Essayan, BA Plunkett, AC Myers and **SK HUANG**. Interleukin-17F induces neutrophilia and amplifies antigen-induced allergic response. *Am. J. Respir. Cri. Care Med.*, 171:12-8, 2005.
40. Konno S, Hoshi T, Taira T, Plunkett B, **HUANG SK**. Endotoxin contamination contributes to the in vitro cytokine-inducing activity of osteopontin preparations. *J Interferon Cytokine Res.* 2005;25:277-82.

41. Konno S, Golden DB, Schroeder J, Hamilton RG, Lichtenstein LM, **HUANG SK**. Increased expression of osteopontin is associated with long-term bee venom immunotherapy. *J Allergy Clin Immunol.* 2005;115:1063-7.
42. Gao PS, Mathias RA, Plunkett B, Togias A, Barnes KC, Beaty TH, **HUANG SK**. Genetic variants of the T-cell immunoglobulin mucin 1 but not the T-cell immunoglobulin mucin 3 gene are associated with asthma in an African American population. *J Allergy Clin Immunol.* 2005;115:982-8.
43. Konno S, Golden DBK, Schroeder J, Hamilton RG, Lichtenstein LM and **HUANG SK**. The level of osteopontin is increased after bee venom immunotherapy. *J. Allergy Clin. Immunol.*, in press, 2005.

#### Review Articles (Selected)

1. Kleine-Tebbe J. and **S.K. HUANG**. "Regulation of human IgE synthesis". *Prac. Allergy and Clin. Immunol.*, 9:233, 1994.
2. Essayan, D.M., G. Krishnaswamy, and **S.K. HUANG**. "Immunologic investigations of T-cell regulation of human IgE antibody secretion and allergic responses". *Methods, A Companion to Methods In Enzymology*, 13:69, 1997.
3. **HUANG, S.K.**, K.Y. Chua, and K.H. Hsieh. "Allergen gene transfer". *Curr. Opin. Immunol.*, 9:800, 1997.
4. **HUANG, S.K.** "Molecular modulation of allergic responses". *J. Allergy Clin. Immunol.*, 102:887, 1998.
5. Kawaguchi M, Adachi M., and **HUANG S.K.** Structural and functional analysis of a new cytokine, ML-1 (interleukin-17F). *Allergol. Int.* 52:117, 2003.
6. Gao, P.S and **S.K. HUANG**. Genetic aspects of asthma. *Panminerva Medica*, 46:121-34, 2004
7. Kawaguchi M, Adachi M, Oda N, Kokubu F, and **HUANG SK**. Interleukin-17 cytokine family. *J. Allergy Clin. Immunol.*, 114:1265-73, 2004.
8. Tsai T.H. and **S.K. HUANG**. Microarray and gene clustering analysis. *Methods in Molecular Biology*, in press, 2005.