



- *Assistant Professor*
- *Department of Pediatrics*
- *Division of Pediatric Allergy & Immunology*

Conditions Treated:

Research Areas:

- *Eczema (Atopic Dermatitis) Overview*
- *Anti-viral innate immunology*
- *Basic Immunology*
- *Cellular and Molecular Biology*
- *Inflammation*
- *Skin Barrier Diseases*
- *Skin Biology*

Programs & Services:

- *Division of Pediatric Allergy & Clinical Immunology*

Research Interests

My research focuses on the central topic in epidermis biology: the pathways that regulate stratified epidermis differentiation and the formation of a functional skin barrier. As the outermost tissue, the epidermis protects human body from various physical, chemical and microbial insults. A full functional skin barrier is paramount for human health. My research program will delineate the molecular mechanisms by which a normal functional epidermis barrier protects from environmental insults, how the environmental factors differentially shape keratinocytes' epigenetic profile and transcriptome in individuals with different genetic background, and how epidermis and immune system reciprocally affect each other's function. These studies will lead to better understand the pathogenesis of skin allergies, infections, inflammation, and tumors.

Education

1992 Hunan Medical University (Hunan, China), BS, Clinical Medicine
1995 Hunan Medical University (Hunan, China), MS, Surgical Pathology
2000 Central South University (Hunan, China), PhD, Oncology

Professional Memberships

American Academy of Allergy Asthma & Immunology

Awards & Recognition

2008: Awarded the Eugene F. and Easton M. Crawford Pediatrics Research Fellowship Fund at National Jewish Health.
2001: Awarded the Priscilla Campbell Memorial Fellowship at National Jewish Medical and

Research Center.

Publications

Bin L, Kim BE, Hall CF, Leach SM, Leung DY (2011). Inhibition of transcription factor specific protein 1 alters the gene expression profile of keratinocytes leading to up-regulation of kallikrein-related peptidases and thymic stromal lymphopoietin. *J Invest Dermatol.* 131(11):2213-22.

Bin L, Howell MD, Kim BE, Streib JE, Hall CF, Leung DY (2011). Specific protein 1 is pivotal in skin's anti-viral response. *J Allergy Clin Immunol.* 127(2):430-438.e1-2

Menke C, Bin L, Thorburn J, Behbakht K, Ford HL, Thorburn A (2011). Distinct TRAIL resistant mechanisms can be overcome by proteasome inhibition but not generally by synergizing agents. *Cancer Res.* 71(5):1883-92.

Bin L, Howell MD, Kim BE, Hall CF, Streib JE, Leung DY (2009). Inhibition of S100A11 gene expression impairs keratinocytes response against vaccinia virus through down-regulation of the IL-10 receptor 2 chain. *J Allergy Clin Immunol.* 124(2):270-7, 277.e1.

Bin LH, Xu L, Shu HB (2003). TIRP: a novel TIR-domain containing adaptor protein involved in Toll/interleukin-1 receptor signaling. *J Biol Chem* 278(27):24526-24532.

Doctor's Contact Information

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Locations

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