

Suggested Reading list:**Why the barrier is essential to the pathophysiology of Atopic Dermatitis****Review articles:**

Filaggrin mutations associated with skin and allergic diseases. Irvine AD, McLean WH, Leung DY. N Engl J Med. 2011 Oct 6;365(14):1315-27.

Small molecules: skin as the first line of defense. Gallo RL, Kulesz-Martin M, Bickenbach JR. J Invest Dermatol. 2011 Nov;131(11):2166-8.

The coordinated response of the physical and antimicrobial peptide barriers of the skin. Borkowski AW, Gallo RL. J Invest Dermatol. 2011 Feb;131(2):285-7.

Antimicrobial peptides, skin infections, and atopic dermatitis. Hata TR, Gallo RL. Semin Cutan Med Surg. 2008 Jun;27(2):144-50. Review.

Original Articles:**Filaggrin:**

Decreased expression of filaggrin in atopic skin.

Seguchi T, Cui CY, Kusuda S, Takahashi M, Aisu K, Tezuka T. Arch Dermatol Res. 1996 Jul;288(8):442-6.

Common loss-of-function variants of the epidermal barrier protein filaggrin are a major predisposing factor for atopic dermatitis. Palmer CN, *et al.* Nat Genet. 2006 Apr;38(4):441-6.

Other Barrier Defects

Endogenous Antimicrobial Peptides and Skin Infections in Atopic Dermatitis. Ong, PY, *et al.* New England J. of Medicine 2002 347:1151-60

Tight junction defects in patients with atopic dermatitis. De Benedetto A, *et al.* J Allergy Clin Immunol. J Allergy Clin Immunol. 2011 Mar;127(3):773-86.e1-7.

Development of atopic dermatitis-like skin disease from the chronic loss of epidermal caspase-8. Li C, *et al.* Proc Natl Acad Sci U S A. 2010 Dec 21;107(51):22249-54.

History of eczema herpeticum is associated with the inability to induce human β -defensin (HBD)-2, HBD-3 and cathelicidin in the skin of patients with atopic dermatitis. Hata TR, *et al.* Br J Dermatol. 2010 Sep;163(3):659-61

Commensal bacteria regulate Toll-like receptor 3-dependent inflammation after skin injury. Lai YP, *et al.* Nature Medicine 2009 Dec;15(12):1377-82. Epub Nov 22.