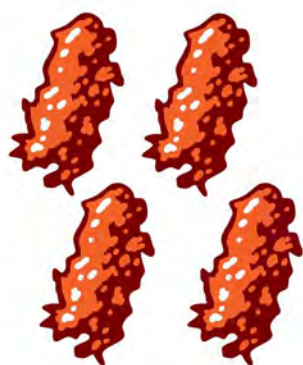


INTERLEUKIN 17-A (IL-17A) IN PSORIASIS

A MESSENGER PROTEIN (OR CYTOKINE) FOUND TO PLAY A KEY ROLE IN PSORIASIS AND OTHER AUTOIMMUNE DISEASES¹

HOW INCREASED LEVELS OF IL-17A AFFECT THE SKIN IN PSORIASIS^{2,3}



Too much IL-17A

IL-17A signals to skin cells (keratinocytes), which grow in number

IL-17A signals to infection-fighting cells to go to infection site

Too many skin cells cause:



THICKENED SKIN

PLAQUES

Infection-fighting cells cause inflammation leading to:



ITCHING

REDNESS

FEEDBACK LOOP CREATED

Infection-fighting cells create more and more IL-17A



IL-17A wrongly continues to signal that more skin cells and infection-fighting cells are needed

IL-17A CAN AFFECT OTHER PARTS OF THE BODY^{4,5}

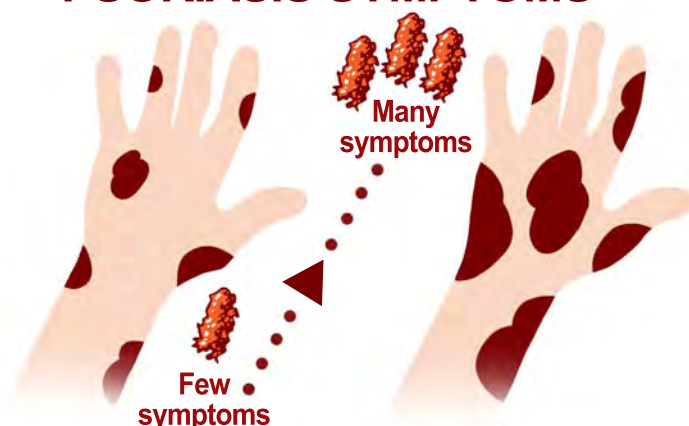


JOINTS
Psoriatic arthritis



SPINE
Ankylosing spondylitis

HIGHER IL-17A LEVELS MAY CAUSE MORE SEVERE PSORIASIS SYMPTOMS^{6,7}



IL-17A: A NEW POTENTIAL TARGET

Newer, innovative treatments have been developed in response to this unmet need. These treatments specifically target the cytokines that trigger inflammation, such as IL-17A interrupt the inflammatory cycle in psoriasis. They have shown positive results in the treatment and management of psoriasis⁴.

1. Kirkham BW, Kavanaugh A, Reich K. Immunology. 2014; 141:133-142.
2. Onishi RM, Gaffen SL. Immunology. 2010; 129: 311-21.
3. Nestle FO, Kaplan DH, Barker J. N Engl J Med 2009; 361(5):496-509.
4. National Psoriasis Foundation. Psoriatic disease: about psoriasis. Accessed February 2016.
5. Rapp SR, Feldman SR, Exum ML, Fleischer AB, Jr, Reboussin DM. J Am Acad Dermatol 1999; 41(3 Pt 1):401-7
6. National Psoriasis Foundation. The immune system and psoriatic disease. Accessed February 2016.
7. Kopf M, Bachmann MF, Marsland BJ. Nat Rev Drug Discov. 2010; 9(9):703-18.