

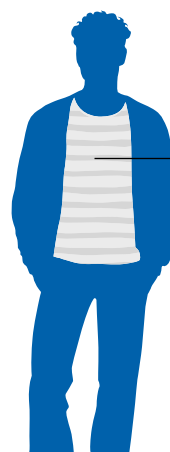
# Interleukin 17-A (IL-17A) In Inflammatory Joint Disease

A key messenger protein (or cytokine) involved in the development of autoimmune diseases<sup>1</sup>

## Increased levels of IL-17A affect the joints, causing pain and disability<sup>2</sup>

IL-17A helps fight infection but in chronic inflammatory joint diseases, IL-17A is a key cytokine involved in disease development<sup>1</sup>.

In chronic inflammatory joint disease, infection fighting cells release increased levels of IL-17A, which drives the inflammation. This leads to excessive inflammation and enthesitis (inflammation of the sites where tendons or ligaments insert into the bone), causing damage such as bone erosion and bone formation<sup>1,3-5</sup>.



**INFLAMMATION**

**TENDERNESS**

**SWELLING**

**BONE EROSION**

**BONE FORMATION**

## Psoriatic arthritis and ankylosing spondylitis are two of the most common chronic inflammatory joint diseases and affect many parts of the body<sup>6,7</sup>

### Psoriatic arthritis<sup>6</sup>



**Skin & nails**



**Joints & tendons**



**Toes & fingers**

### Ankylosing spondylitis<sup>7</sup>



**NECK**

**SPINE**

**PELVIS**

### IL-17A: A new potential target

New, innovative treatments have been developed that specifically target IL-17A to block the cytokine's inflammatory effect, improving the lives of people living with psoriatic arthritis and ankylosing spondylitis.

1. Kopf M, Bachmann MF, Marsland BJ. Averting inflammation by targeting the cytokine environment. *Nature Reviews Drug Discovery*. 2010;9(9):703-18.
2. Arthritis Foundation. FDA Approves Biologic Secukinumab for Ankylosing Spondylitis and Psoriatic Arthritis. Available at: <http://blog.arthritis.org/news/new-biologic-medication-fda-approved-secukinumab/>. Accessed April 2017.
3. Onishi RM, Gaffen SL. Interleukin-17 and its target genes: mechanisms of interleukin-17 function in disease. *Immunology*. 2010;129:311-21.
4. Noordenbos T, Yeremenko N, Gofita I, van de Sande M, Tak PP, Cañete JD, Baeten D. Interleukin-17-positive mast cells contribute to synovial inflammation in spondyloarthritis. *Arthritis & Rheumatism* 2012; 64(1):99-109.
5. Smith JA, Colbert RA. Review: The Interleukin 23/Interleukin 17 Axis in Spondyloarthritis Pathogenesis: Th17 and Beyond. *Arthritis & Rheumatology*. 2014;66(2):231-41.
6. Liu JT, Yeh HM, Liu SY, Chen KT. Psoriatic arthritis: Epidemiology, diagnosis, and treatment. *World Journal of Orthopaedics* 2014; 5(4):537-543.
7. Reveille JD. American College of Rheumatology. Spondyloarthritis. Available at: <http://www.rheumatology.org/I-Am-A/Patient-Caregiver/Diseases-Conditions/Spondyloarthritis>. Accessed April 2017.