## SUPPLEMENTARY MATERIAL

## Exploring the Effects of Ixekizumab on Pain in Patients with Ankylosing Spondylitis Based on Objective Measures of Inflammation: Post-Hoc Analysis from a Large Randomized Clinical Trial

Kurt de Vlam<sup>1</sup>, Walter P. Maksymowych<sup>2</sup>, Gaia Gallo<sup>3</sup>, Proton Rahman<sup>4</sup>, Philip Mease<sup>5</sup>, Venkatesh Krishnan<sup>3</sup>, Conor J. McVeigh<sup>3</sup>, Jeffrey Lisse<sup>3</sup>, Danting Zhu<sup>3</sup>, Rebecca J. Bolce<sup>3</sup>, Philip G. Conaghan<sup>6</sup>

## Affiliations:

<sup>1</sup>University Hospital Leuven, Leuven, Belgium

<sup>2</sup>Department of Medicine, Division of Rheumatology at the University of Alberta, Alberta, Canada

<sup>3</sup>Eli Lilly and Company, Indianapolis, United States of America

<sup>4</sup>Department of Medicine, Memorial University, St. John's, Newfoundland A1C 5B8, Canada

<sup>5</sup>Swedish Medical Center/Providence St. Joseph Health and University of Washington, Seattle, Washington, United States of America

<sup>6</sup>Leeds Institute of Rheumatic and Musculoskeletal Medicine, University of Leeds, and NIHR Leeds Biomedical Research Centre, United Kingdom

Corresponding Author: Kurt de Vam

Email Address: kurt.devlam@uzleuven.be

Keywords: IL-17; Pain; Inflammation; Rheumatic Disease; Spondylitis, Ankylosing

**Trial Protocol:** Prot 000.pdf (clinicaltrials.gov)

Statistical Analysis Plan: SAP 001.pdf (clinicaltrials.gov)

Table S1. Baseline demographics and disease characteristics of participants in COAST-V

	Placebo N=87 <sup>a</sup>	Adalimumab Q2W N=90	Ixekizumab Q2W N=83	Ixekizumab Q4W N=81
Age (years)	42.7 (12.0)	41.8 (11.4)	41-3 (11-2)	41.0 (12.1)
Sex, n (%)		•		
Male	71 (82·6%)	73 (81-1%)	64 (77-1%)	68 (84-0%)
Female	15 (17·4%)	17 (18-9%)	19 (22-9%)	13 (16-0%)
Race, n (%)	,			
White	52 (60-5%)	57 (63-3%)	52 (62.7%)	52 (64-2%)
Asian	28 (32.6%)	29 (32.2%)	25 (30-1%)	25 (30.9%)
Other	6 (7.0%)	4 (4.4%)	6 (7.2%)	4 (4.9%)
Weight (kg)	79-9 (17-1)	78-2 (17-2)	76-6 (13-8)	77.6 (14.7)
<70 kg, n (%)	25 (29-1)	29 (32.2)	29 (34-9)	24 (29-6)
≥70 kg, n (%)	61 (70-9)	61 (67-8)	54 (65-1)	57 (70-4)
Age of onset of AxSpA (years)	26-4 (8-4)	26.5 (8.6)	25.8 (8.2)	25.4 (7.7)
Duration of symptoms since AxSpA onset (years)	16-6 (10-1)	15-6 (9-3)	15·8 (10·6)	15.8 (11.2)
Duration of disease since AxSpA diagnosis (years)	6-8 (7-6)	7.5 (7.5)	8-2 (9-0)	8-3 (9-6)
Positive for HLA-B27	76 (89-4%)	82 (91.1%)	75 (90-4%)	75 (92-6%)
NSAID use at baseline, n (%)	78 (90.7%)	83 (92-2%)	79 (95-2%)	72 (88-9%)
csDMARDs use at baseline, n (%)	31 (36-0%)	32 (35-6%)	29 (34-9%)	33 (40.7%)
Sulfasalazine, n (%)	23 (26.7%)	25 (27.8%)	25 (30-1%)	24 (29-6%)
Methotrexate, n (%)	8 (9.3%)	8 (8.9%)	4 (4.8%)	9 (11-1%)
Patient global assessment of disease activity NRS	7.1 (1.7)	7.1 (1.7)	7.1 (1.6)	6.9 (1.5)
CRP (mg/L)	16-0 (21-0)	12.5 (17.6)	13-4 (15-3)	12-2 (13-3)
CRP >5 mg/L, n (%)	60 (69-8)	52 (57-8)	55 (66-3)	52 (64-2)
ASDAS	3.9 (0.7)	3.7 (0.8)	3.8 (0.8)	3.7 (0.7)
BASDAI	6-8 (1-2)	6.7 (1.5)	6.7 (1.6)	6-8 (1-3)
BASFI	6-4 (1-9)	6.1 (2.1)	6.3 (2.1)	6.1 (1.8)
ASAS Health Index	8-1 (3-5)	8-2 (3-7)	8-4 (3-6)	7.5 (3.3)
SF-36 PCS	32.0 (8.3)	33.5 (8.3)	34.1 (7.6)	34.0 (7.5)
MRI SPARCC Spine	15-8 (21-2)	20.0 (28.4)	16-6 (23-8)	14.5 (20.6)
MRI SPARCC SIJ	5.0 (9.6)	4.7 (11.2)	6-4 (10-9)	4.5 (9.1)
Spinal pain	7.4 (1.4)	7.0 (1.6)	7.1 (1.5)	7.2 (1.3)
Spinal pain at night	7.1 (1.7)	6.9 (1.8)	7.1 (1.7)	7.0 (1.4)
Bodily pain <sup>b</sup>	35.4 (17.7)	37.6 (15.7)	38.0 (16.9)	38.8 (16.3)

Unless otherwise indicated, values are presented as mean (SD). Data are presented for patients with non-missing values.

Abbreviations: ASAS, Assessment of SpondyloArthritis International Society; ASDAS, Ankylosing Spondylitis Disease Activity Score; AxSpA, Axial Spondyloarthritis; BASDAI, Bath Ankylosing Spondylitis Disease Activity Index; BASFI, Bath Ankylosing Spondylitis Functional Index; CRP, C-

<sup>&</sup>lt;sup>a</sup>The placebo population excludes one patient who was a screen failure and was accidentally randomised to placebo. This patient discontinued prior to receiving study drug.

<sup>&</sup>lt;sup>b</sup>Measured using the SF-36 PCS associated domains.

reactive protein; csDMARD, conventional synthetic disease-modifying antirheumatic drug; HLA, human leukocyte antigen; MRI, magnetic resonance imaging; NRS, numeric rating scale; NSAID, nonsteroidal anti-inflammatory drug; Q2W, every two weeks; Q4W, every four weeks; SD, Standard deviation; SF-36 PCS, Medical Outcomes Study 36-item Short-Form Health Survey Physical Component Summary; SIJ, Sacroiliac joint; SPARCC, Spondyloarthritis Research Consortium of Canada.

Figure S1. Trial Profile for COAST-V

