Long-term psoriasis control following secukinumab discontinuation indicates disease modification of moderate to severe psoriasis: Clinical and mechanistic results

After treatment discontinuation, psoriasis tends to revert to its baseline severity.
In a phase 3 extension study, after 1 year of secukinumab 300 mg treatment of moderate to severe psoriasis, PASI75 responders continued double-blind secukinumab or switched to placebo (N = 120). Upon relapse placebo patients were retreated with secukinumab. A transcriptional analysis of PASI75 responders after 1 year of secukinumab 300 mg treatment was also performed with Affymetrix gene microarray of lesional and non-lesional skin biopsies before and after treatment and compared to healthy volunteer skin.
Following the last dose of secukinumab 300 mg, 21% and 10% of patients did not relapse for at least 1 or 2 years, respectively. Patients who switched from placebo to secukinumab 300 mg maintained low mean PASI scores: 2.7 after 1 year and 1.7 after 2 years off-drug, vs 20.9 and 19.2 at Baseline. Mean duration of disease at Baseline was 14– 16 years, indicating secukinumab treatment was a late intervention. Gene expression analysis showed that after secukinumab treatment, patient skin gene expression was similar to healthy volunteer skin by Principal Component
Analysis.
After secukinumab discontinuation, a high proportion of patients did not revert to their baseline severity and even stayed relapse-free. Secukinumab appears to be able to modify the course of moderate to severe psoriasis, even when intervening late in its course. This is further supported by transcriptional data indicating that lesional and non-lesional skin return to the normal level observed in healthy skin after secukinumab treatment.