**Section 3.** A total of 400 patients randomly assigned to treatment (200 per arm) would yield >99% power to detect a treatment effect in ACR20 responder rate between abatacept (41%) and placebo (18%) and in HAQ-DI responder rate between abatacept (39%) and placebo (18%) at week 24 at the 5% level. For the subgroup analysis based on prior exposure to TNFi, a sample size of 76 patients per arm in the TNFi-naïve subgroup and 124 patients per arm in the TNFi-exposed subgroup yielded 98% and 83% power, respectively, to detect a treatment effect in ACR20 responder rate between abatacept (TNFi naïve: 52%; TNFi exposed: 34%) and placebo (TNFi naïve: 20%; TNFi exposed: 17%) at week 24. For the proportion of patients with PASI 50, a sample size of 120 patients with baseline body surface area (BSA) ≥3% per arm (assuming 60% of patients with baseline BSA ≥3%) would yield 89% power to detect a treatment effect between abatacept (32%) and placebo (14%) at week 24 at the 5% level. No radiographic data were available from the phase 2 study1 or for TNFi-exposed patients to define the power. Therefore, it was assumed that the treatment effect of abatacept was similar to that of golimumab and that the treatment effect in TNFi-naive and TNFi-exposed patients was similar. Based on these assumptions, the power to detect a significant effect for the proportion of radiographic non-progressors (defined as change from baseline ≤0) for a sample size of 200 patients per arm was 93–80% (abatacept: 79–71%; placebo: 63–57%; missing data imputed as progressors).

The longitudinal model included the fixed categorical effects of treatment, day, prior TNFi use, methotrexate use, BSA, day-by-treatment interaction, prior TNFi-use-by-day interaction, methotrexate use-by-day interaction, BSA-by-day interaction as well as the continuous fixed covariate of baseline score and baseline score-by-day interaction. An unstructured covariance matrix was used to represent the correlation of the repeated measures within each patient. Treatment differences and corresponding 95% confidence intervals (CIs) for binary data were based on the stratum size weights method stratified by current methotrexate use, prior TNFi use and plaque psoriasis involving BSA ≥3%.

**Reference**

1. Mease P, Genovese MC, Gladstein G, *et al*. Abatacept in the treatment of patients with psoriatic arthritis: results of a six-month, multicenter, randomized, double-blind, placebo-controlled, phase II trial. *Arthritis Rheum* 2011;63:939-48.