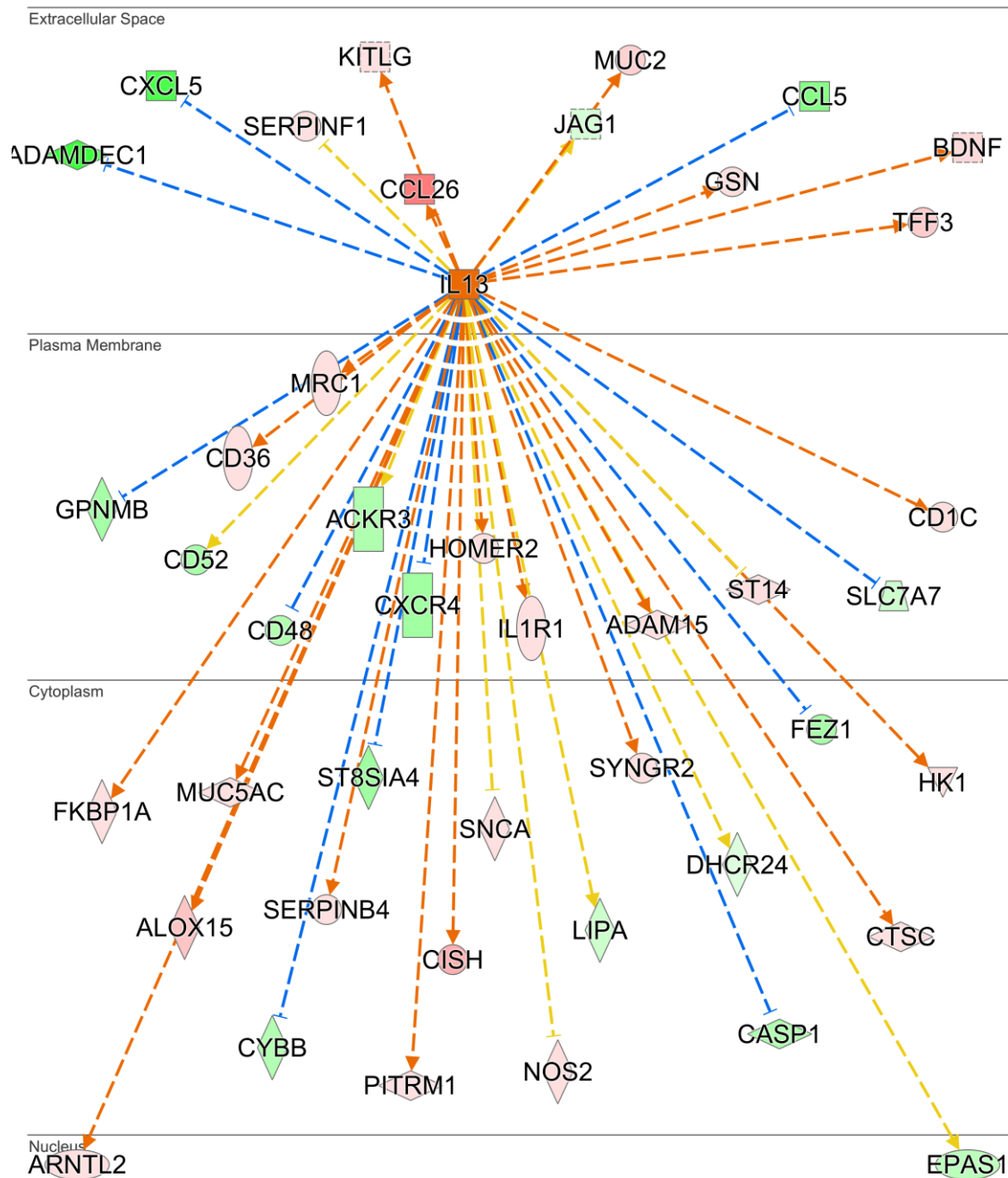


Figure E2 – Upstream regulatory analysis of top 1,000 DEGs showing predicted activation of IL13



Upstream regulator analysis using IPA© showed predicted activation of the IL-13 pathway ($P=6.5 \times 10^{-14}$) as the top result. DEGs shown in red (over-expressed in cases vs controls) and green (under-expressed in cases vs controls). Darker red/green denote more extreme over/under-expression. Darker orange/blue indicate stronger confidence in predicted activation/inhibition. Of note, *IL13* was indeed over-expressed in cases in our cohort (FDR $P=2.24 \times 10^{-10}$).