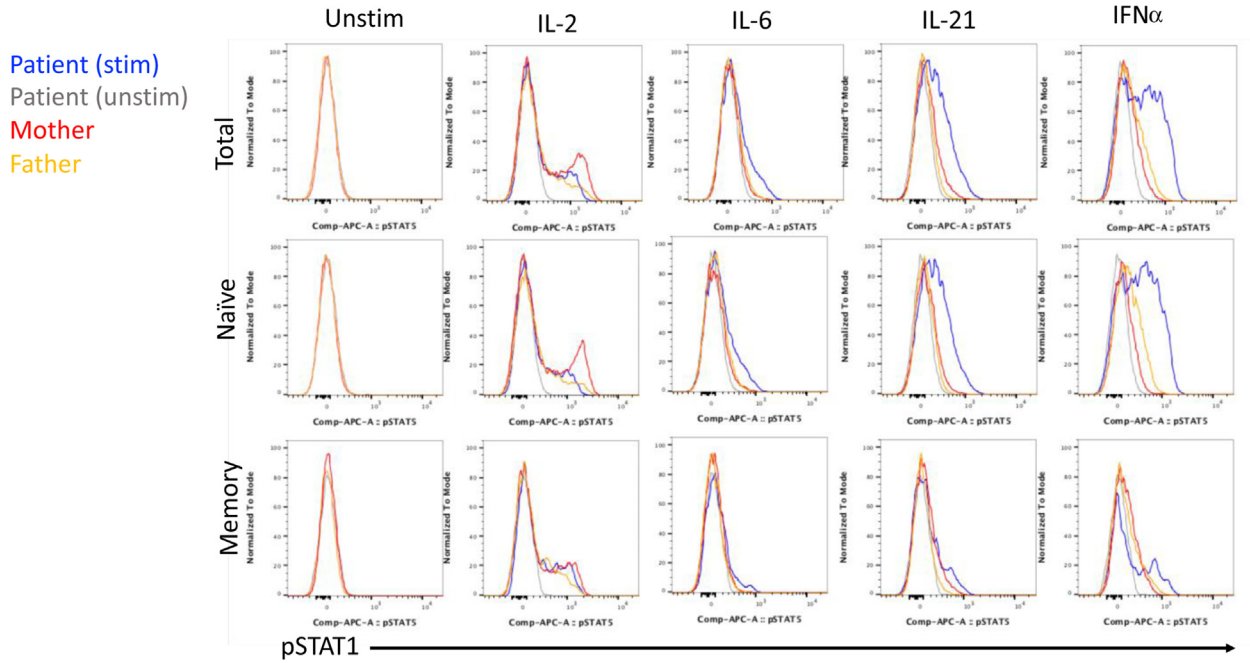
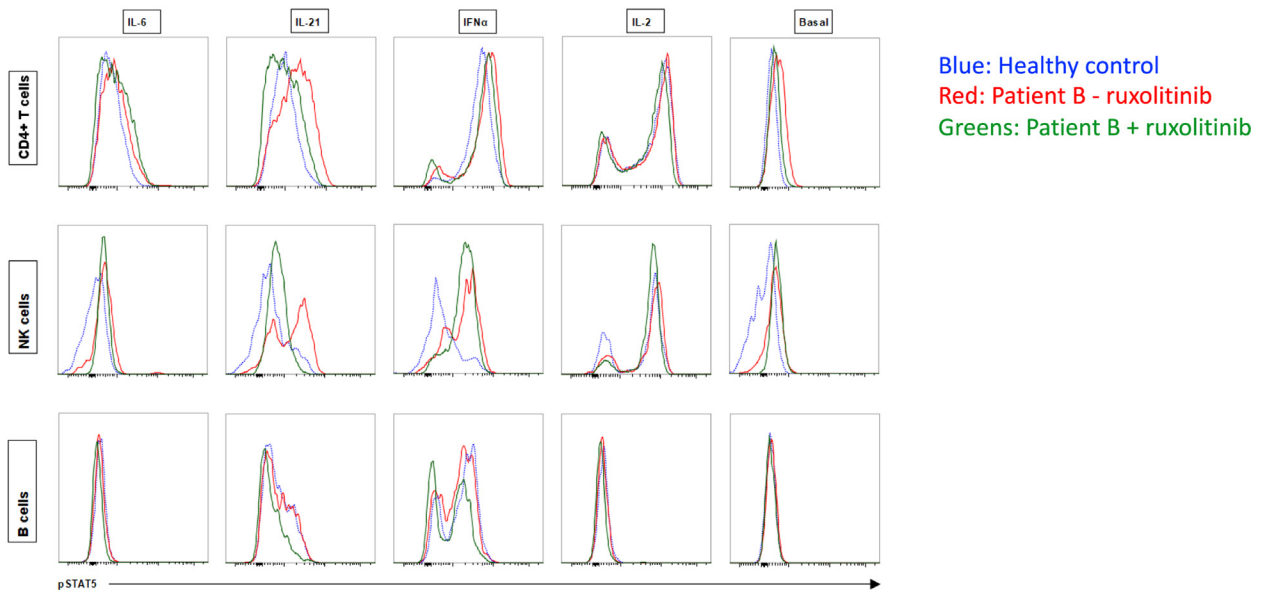


# pSTAT5 in T cells



**FIGURE E1.** STAT5 phosphorylation in patient A's basal and stimulated T cells compared with a healthy control. In the presence of IL-21 and IFN- $\alpha$ , patient A's T cells had significantly increased phosphorylated STAT5 levels compared with the healthy control. Baseline STAT5B phosphorylation was not increased in the patient compared with healthy controls. *stim*, Stimulated; *unstim*, unstimulated.

# pSTAT5 responses in CD4-T cells, B and NK cells



**FIGURE E2.** STAT5 phosphorylation in patient B's basal and stimulated cells compared with a healthy control. In the presence of IL-21, patient B's cells had increased phosphorylated STAT5 levels compared with the healthy control. Baseline STAT5B phosphorylation was not increased in the patient compared with healthy controls. Levels of phosphorylated STAT5 in the presence of IL-21 are significantly decreased when the patient is on treatment with ruxolitinib. *NK*, Natural killer.