**Supplemental Figure Legends**

**Figure S1 related to Figure 1: An IL21-VFP knock-in allele reliably reports**

**IL21 expression and secretion by activated CD4 T cells and TFH. A)** IL21-VFP reporter construct design. An IRES-VFP cassette was inserted intonon-coding exon 5 of *Il21* along with a *NeoR* selection cassette flanked by *loxP*sites. The *NeoR* cassette was genetically excised by Cre-mediated deletion resulting in micetransmitting the bicistronic IL21-IRES-VFP reporter. **(B)** PCR confirmation ofgermline transmission. **(C)** Cytokine and VFP transcription of CD4 T cells fromIL21-VFP mice after stimulation *in vitro.* Splenocytes from IL21-VFP mice werecultured with antibodies to CD3 and CD28. VFP- or VFP+CD4 T cells were thenFACS purified and RT-qPCR was performed. Data shown are the mean foldchanges +/- SD of cells from 3 B6.IL21-VFP mice after ΔΔCt normalization to 18sRNA. \*VFP 1, 2 & 3 are three different primer sets used for RT-qPCR **(D)** Splenocytes isolated from Il21-VFP mice were cultured for 36-48hrs with anti-CD3/CD28 and then sorted as CD4 VFP- or CD4 VFP+. Sorted cells were then independently cultured for 24hrs and supernatant was measured by ELISA for IL21, IL2, IL10, IL17 and IFNγ. \*P ≤0.05, \*\* P ≤0.01, \*\*\* P ≤0.001, \*\*\*\* P ≤0.0001 (Mann Whitney). **(E)** IL21-VFP mice were immunized with DNP-KLH in CFA and their spleen cells as well as control cells from an unimmunized B6 mouse were analyzed by FACS 11 days later. Results show that VFP is expressed almost exclusively by CD44hiICOShiPD1hi TFH in immunized mice. **(F)** VFP expressing cells localize to a splenic GC (circled) of a 31 wk old B6.*Sle1 Yaa* IL21-VFP mouse. All data shown are representative of at least 2 independent experiments.

**Figure S2 related to Figure 3: RNA sequencing sort parameters. (A)** Splenocytes from naïve 4 wk old VFP mice were pooled into 2 biological replicates. Each sample was then enriched for CD4 T cells and FACS-sorted. A representative plot shows the criteria used for sorting: N, naïve (ICOS-/lo VFP-); ACT, activated (ICOS+ VFP-); and ACT IL21 (ICOS+VFP+) cells. **(B)** Gene expression confirmations of gating parameters showing equivalent expression of VFP and *Il21* by the ACT IL21 population and equivalently high levels of *Icos*and *Cd44* expression by the ACT and ACT IL21 populations.

**Figure S3 related to Figure 5: Naïve CD4 T cells can differentiate to nTFH after adoptive transfer. (A)** Representative FACS plot of B6.*Tcrα* -/- mice (with CD45.1) recipient mice that received no transferred cells (right) or naïve CD4 cells (VFP- CD44- CD62L+) sorted from B6.IL21-VFP (CD45.2) mice. About 500,000 naivecells were injected. See Figure 5 for nTFH recipient data. **(B)** Data showing the appearance of VFP+ cells that are predominately nTFH in the naïve CD4 recipient B6.*Tcrα* -/- mice. Data are representative of two independent experiments. \*\* P ≤0.01.