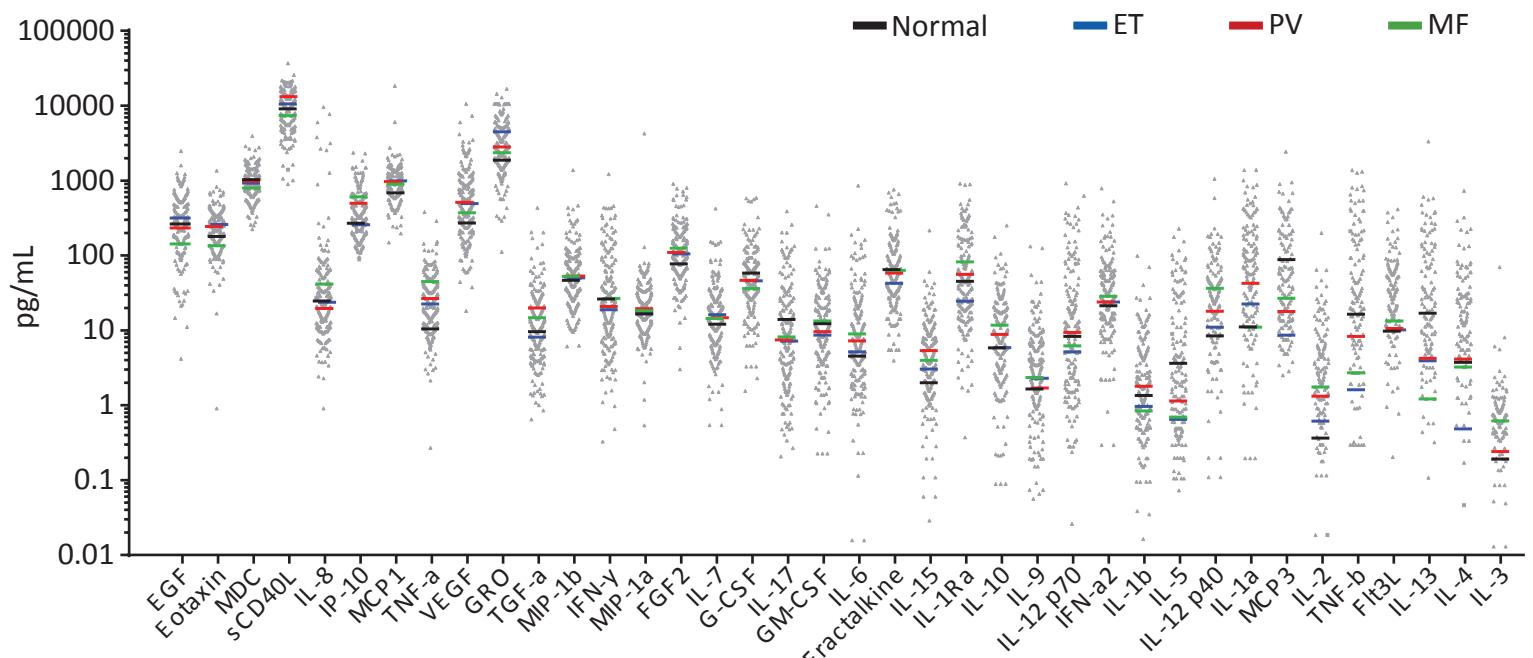
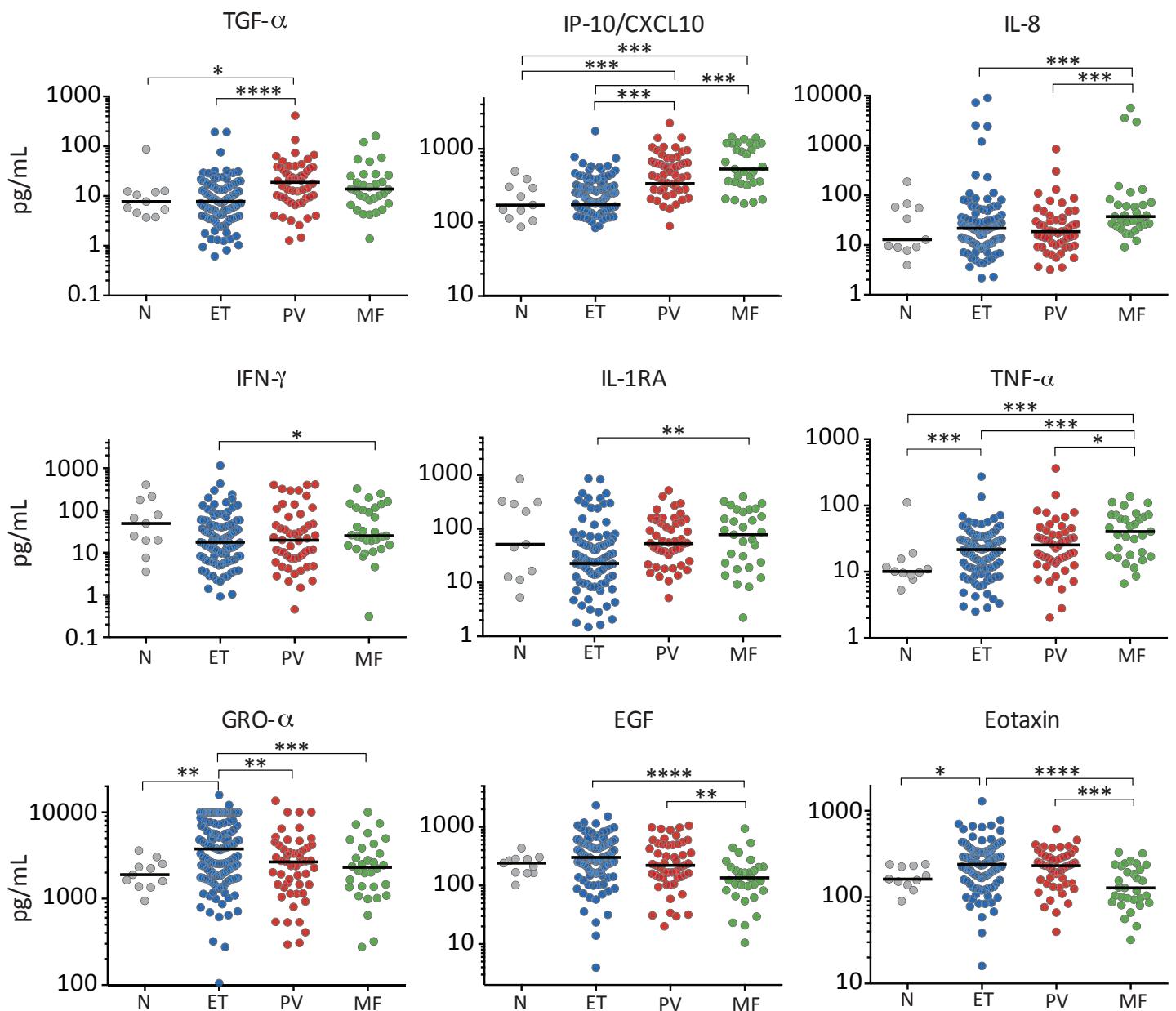
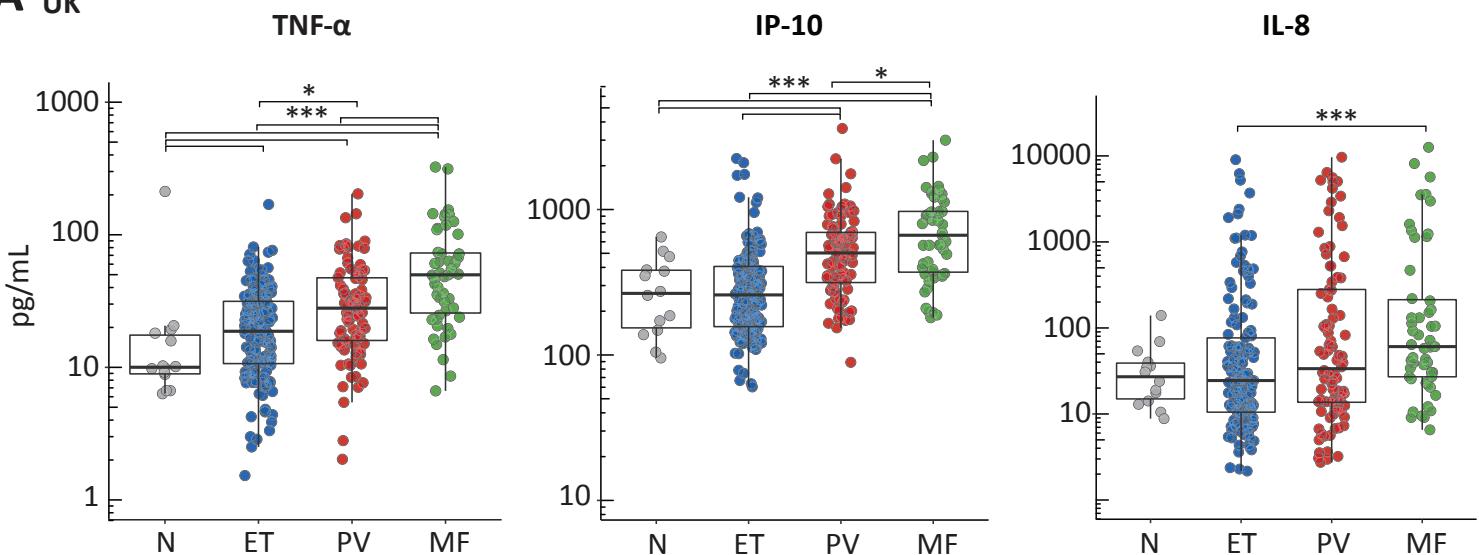
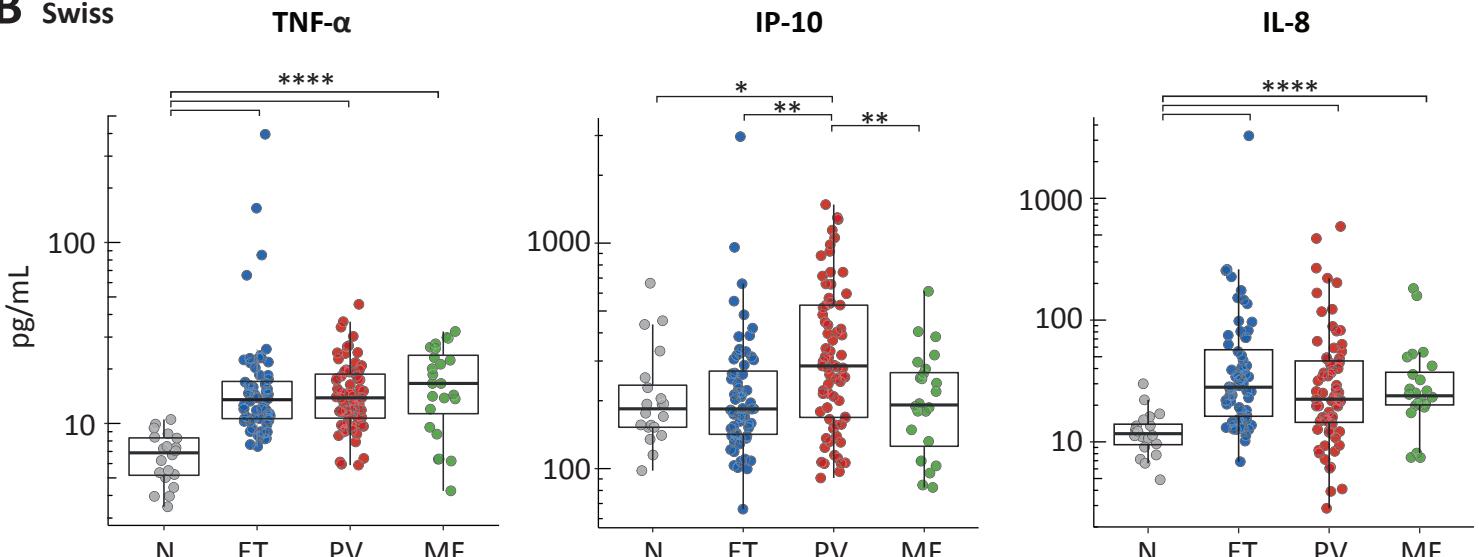
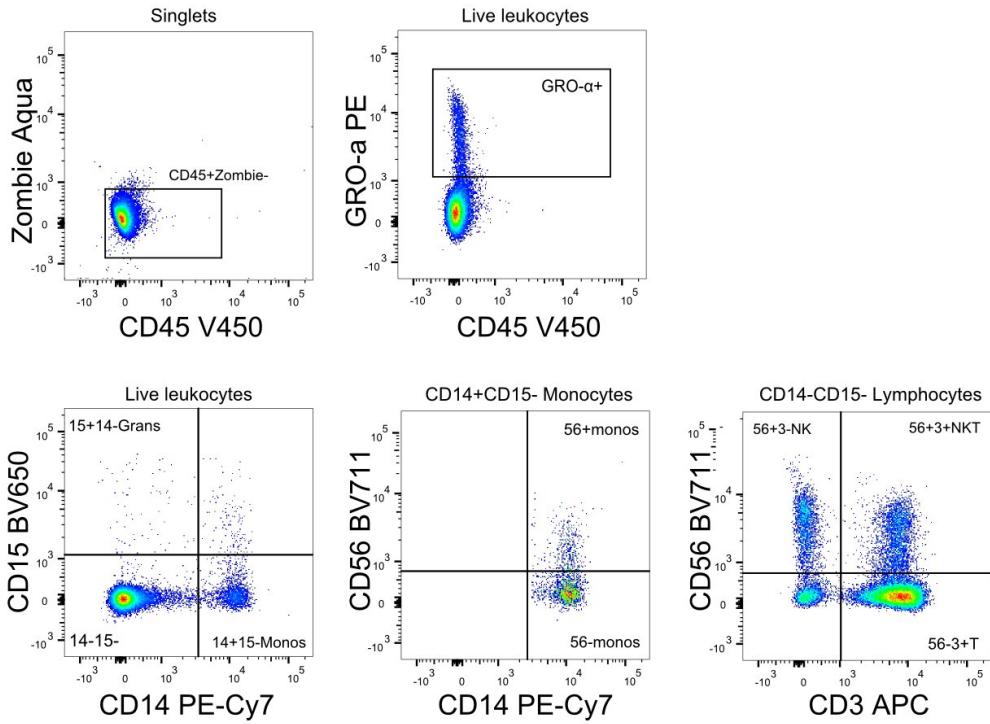


**A****B**

**A UK****B Swiss**

S2



S3

## **Supplemental Figure Legends**

### **Figure S1. 38-cytokine screen of diagnostic serum samples from MPN patients and healthy controls.**

**A)** Serum concentration (pg/mL) of 38 inflammatory cytokines and chemokines across 190 MPN patients and 11 normal individuals. Bars show medians for each MPN subtype (n=11 normal, black line; n=107 ET, blue line; n=52 PV, red line; n=31 MF, green line). **B)** Comparisons of the serum levels of 9 selected cytokines across the three MPN subtypes and normal individuals in the original cohort. Bars show medians. Mann-Whitney U-test \*p<0.05, \*\*p<0.01, \*\*\*p<0.001, \*\*\*\*p<0.0001.

### **Figure S2. Serum profile of MF associated cytokines in UK and Swiss MPN cohorts.**

**A)** TNF- $\alpha$ , IP-10, and IL-8 serum levels in 291 MPN patients (146 ET, 94 PV, 51 MF) from the UK cohort. **B)** TNF- $\alpha$ , IP-10, and IL-8 serum levels in 204 MPN patients (ET n=75 PV n=84 MF n=33) and 24 normal controls from Swiss cohort. For the Swiss cohort, samples and clinical data were obtained in Basel, and approved by the local Ethics Committees (Ethik Kommission Beider Basel) and the diagnosis of MPN was established according to the revised World Health Organization criteria. Serum cytokine profiling in the Swiss cohort was performed using Meso Scale Discovery Platform (Rockville, Maryland, USA). Boxes show medians with IQR. Mann-Whitney U-test \*p<0.05, \*\*p<0.01, \*\*\*p<0.001, \*\*\*\*p<0.0001

### **Figure S3: Flow cytometry gating strategy.**

Data gating strategy used in the intracellular flow cytometry assay to identify GRO- $\alpha$  positive cells and leukocyte subsets CD56+ monocytes, CD56- monocytes, T-cells, NK-cells, and NKT-cells. The plots show a representative example from LPS-stimulated MNCs from a MPN patient.

Correlation between individual cytokines and total protein content

	<b>Spearman coefficient R</b>	<b>p</b>	<b>R<sup>2</sup></b>
TNF- $\alpha$	-0.11	0.24	0.0121
IP-10	-0.14	0.14	0.0196
IL-8	-0.01	0.91	0.0001
GRO- $\alpha$	0.16	0.07	0.0256
EGF	-0.04	0.67	0.0015
Eotaxin	0.03	0.73	0.0010
IL-6	-0.08	0.38	0.0066
TGF- $\alpha$	-0.12	0.20	0.0144
IFN- $\gamma$	0.09	0.34	0.0077
IL-1RA	-0.12	0.19	0.0144

Supplementary table 1