



Supplementary Materials: Polycythemia Vera and Essential Thrombocythemia patients exhibit unique serum metabolic profiles compared to healthy individuals and secondary thrombocytosis patients

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| Clinical Features | ET | PV |
|---|---------------------|--------------------|
| Hypertension, n (%) | 17 (37%) | 14 (63,7%) |
| High LDH levels, n (%) | 3 (6.52%) | 1 (4.54%) |
| Hemoglobin levels (g/dL; mean \pm sd) | 14.59 ± 1.31 | 17.47 ± 2.16 |
| Leucocyte levels (x10 9 /L; mean ± sd) | 8.62 ± 2.09 | 9.45 ± 3.08 |
| Platelets levels (x10 ⁹ /L; mean \pm sd) | 718.86 ± 277.92 | 504.3 ± 175.28 |
| Treatment, n (%): | | |
| Hydroxyurea | 29 (63.04%) | 18 (81.81%) |
| Acetylsalicylic acid | 15 (32.61%) | 4 (18.2%) |
| Phlebotomy | 2 (4.35%) | 1 (4.54%) |
| Interferon alpha | 1 (2.17%) | - |
| • Any | 13 (28.26%) | 3 (13.63%) |
| Thrombotic events, n (%) | | |
| Before diagnosis | 5 (10.87%) | 5 (22.72%) |
| At diagnosis | 4 (8.67%) | 1 (4.54%) |
| After diagnosis | 3 (6.52%) | 2 (9.10%) |
| Other neoplasia, n (%) | 5 (10.87%) | 2 (9.10%) |

Table S1. Clinical details available for the MPN patients included in the study.

ET: essential thrombocythemia, LDH: lactate dehydrogenase, n: number of patients, PV: polycy-themia vera, sd: standard deviation.

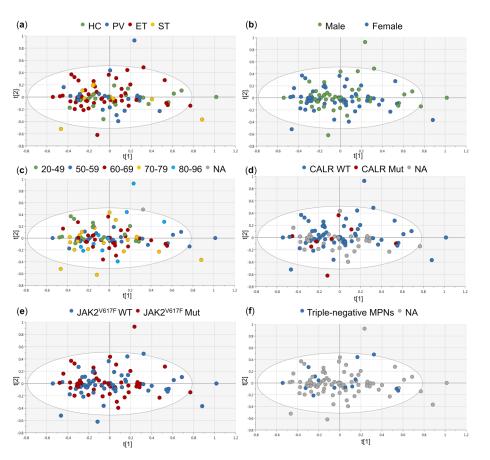


Figure S1. Principal Component Analysis (PCA) score plots corresponding to the samples included in the study. Samples are classified according to: (**a**) group of study, (**b**) gender, (**c**) age, (**d**) CALR, (**e**) JAK2V617F, and (f) mutational status. ET: essential thrombocythemia, HC: healthy controls, NA: not available, PV: polycythemia vera, ST: secondary thrombocythemia, Mut: Mutant, WT: Wild Type.

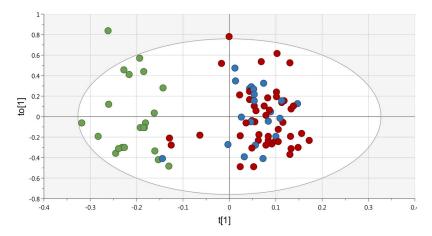


Figure S2. OPLS-DA scores plot for the comparison between HC (•) vs ET (•) + PV (•): R²Y = 0.798, Q²Y = 0.701. ET: essential thrombocythemia, HC: healthy controls, PV: polycythemia vera.

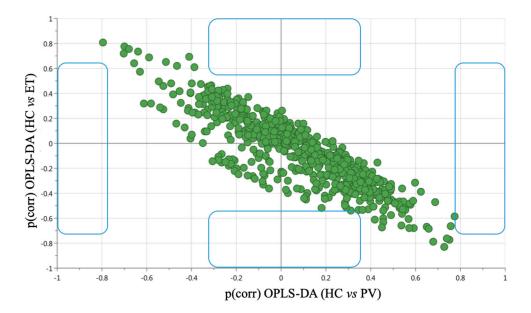


Figure S3. SUS-plot analysis correlating the OPLS-DA models of HC vs PV (x-axis) and HC vs ET (y-axis). Metabolic features that are equally important in both models are represented in the diagonal, while the blue rectangular frames represent unique metabolites in each model.