Dear Colleagues,

The quantification of mutated JAK2 alleles at diagnosis and during treatment allows a more precise determination of the response to cytoreductive therapies (e.g. IFN, hydroxyurea or imatinib) in patients with V617F JAK2 positive chronic myeloproliferative disorders (CMPD).

A recent study by Jones et al. (Blood, epub ahead of print) has shown only a minimal molecular response in a small cohort of polycythemia vera patients who were treated with imatinib or interferon alpha. Although some patients have shown a significant reduction of mutated alleles, none of them became clearly negative. These results could obviously have important implications for further treatment decisions.

At the European LeukemiaNet meeting in Heidelberg, it was therefore decided to extend these studies to patients who are regularly seen at participating institutions of the CMPD work package 9. The goal of this study would be to evaluate if patients can achieve a molecular response on cytoreductive treatment with IFN or imatinib.

The following criteria should be fulfilled:

(1) Typical (Polycythaemia vera, essential thrombocythaemia, myelofibrosis) and atypical CMPD (atypical CML, CMML, MDS/MPD).
(2) JAK2 V617F positive or, if not known, unambiguous WHO or PVSG diagnosis of PV.
(3) Cytoreductive treatment with IFN or imatinib.
(4) Complete haematological response.
(5) A peripheral blood sample or extracted DNA or cDNA obtained whilst in complete haematological remission *PLUS* a sample prior to treatment. This sample may be DNA or cDNA, but could be a peripheral blood or bone marrow slide (ideally unstained but stained would be acceptable) or fixed cell suspensions for cytogenetic analysis.
(6) Appropriate informed consent according to local procedures

The material should be coded (ie. without patient name) and shipped to either of the two following laboratories:

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