



## Memorandum

**DATE:** January 29, 2016  
**TO:** Ordering Physicians  
**FROM:** Dr. J. Waye, Discipline Director, Genetics  
**RE:** CALR Testing Through HRLMP Molecular Oncology Laboratory

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***Effective February 1, 2016 CALR testing will be available through the HRLMP Molecular Oncology Laboratory for the investigation of cases with a clinical suspicion of essential thrombocythemia or primary myelofibrosis and absence of detectable JAK2 V617F mutation.***

The HRLMP Molecular Oncology Laboratory has developed and validated testing for somatic mutations of the *CALR* gene. The developed assay is specific for insertions and deletions within *CALR* exon 9, including the recurrent type 1 and type 2 mutations (52 bp deletion and 5 bp insertion, respectively) (Nangalia et al, N Engl J Med. 2013;369:2391-2405; Klampfl et al, N Engl J Med. 2013;369:2379-2390). While these mutations are extremely rare in polycythemia vera (Broséus et al, Blood. 2014 124(26):3964-6), they are detectable in approximately 50-85% of patients with essential thrombocythemia (ET) or primary myelofibrosis (MF) and no *JAK2* or *PML* mutation (Nangalia et al., 2013; Klampfl, 2013; Rotunno et al, Blood. 2014; 123(10):1552-5).

Please note, the *CALR* test is only available for those cases with a clinical suspicion of ET or MF and absence of detectable *JAK2* V617F. For new cases of suspected ET or PMF, *CALR* testing will be automatically tested if *JAK2* V617F testing is negative. For previous diagnoses of ET or MF, *CALR* testing is also available but only if the previous *JAK2* V617F testing was negative.

The current requisition does not allow health care practitioners to differentiate between a clinical suspicion of different myeloproliferative neoplasms. Until a new requisition is available please indicate "ET/MF – *CALR* test" on the existing Molecular Oncology requisition to order *CALR* testing. A new requisition will follow that will include *CALR*.

If you have any questions about this or any other HRLMP Cancer Genetic Test, please contact the Laboratory directly (905) 521-2100 Ext 73707. For urgent requests please contact the laboratory by email ([geneticsurgentreques@HHSC.CA](mailto:geneticsurgentreques@HHSC.CA)).