Hypoxia sensing

The following labs explore oxygen sensing pathways and related genes (details about the labs in the second table)

Country	Name	VHL	PHD2	HIF2	Others
Germany	Dr. Schnittger	whole cod reg (cDNA)	P317 and R371	ex 12	
Germany	Dr. Cario	all exons	all exons	ex 9-16	
Italy	Dr. Perrotta ; Dr. Della Ragione	ex 1-2-3	ex 1-2-3-4	ex 12	PHD1 'ex 1-5) ; PHD3 (ex 1-3) ; HIF1 (ex 9, 12, 150)
Italy	Pr. Vannucchi ; Dr. Guglielmelli	EX 1-2-3	EX 3	EX 12	
Netherlands	Dr. van Wijk	ex 1-2-3	ex 1-2-3-4	ex 12	BPGM, HBB, HBA1, HBA2 (all exons)
Portugal	Dr Bento	ex 1-2-3	ex 1-2-3-4-5	ex 12	HBB, HBA1, HBA2, DPGM (all exons)
Spain	Dr Bellosillo	ex 1-2-3	P317 and R371 + flanking reg	M535, G537 and flanking reg	
Switzerland	Dr. Porret ; Dr Oppliger	ex 1-2-3	nono		
UK	Dr Percy ; Pr. McMullin	ex 1-2-3	ex 1-2-3-4	ex12	HBB, HBA1, HBA2

Details about the labs, contacts:

Country	Name	Institution	email
Germany	Dr. Susanne Schnittger	MLL Munich Leukemia Laboratory	Susanne.schnittger@mll-online.com
Germany	Dr. Holger Cario	Department of Pediatrics and Adolescent Medicine, University Hospital Ulm	holger.cario@uniklinik-ulm.de
Italy	Dr. Silverio Perrotta ; Dr. Fulvio Della Ragione	University of Naples	silverio.perrotta@unina2.it ; fulvio.dellaragione@unina2.it
Italy	Prof. Alessandro M. Vannucchi ; Dr. Paola Guglielmelli	Az. Ospedaliero-universitaria Careggi, University of Florence	paola.guglielmelli@unifi.it ; amvannucchi@unifi.it
Netherlands	Dr. Richard van Wijk	University Medical Center Utrecht	R.vanWijk@umcutrecht.nl
Portugal	Dr Celeste Bento	Hospital Pediatrucim Coimbra	celeste.bento@chc.min-saude.pt
Spain	Dr Beatriz Bellosillo	Hospital del Mar, Barcelona	94161@imas.imim.es

Switzerland	Dr. Naomi Porret ; Dr Elisabeth Oppliger	Inselspital Bern	naomi.porret@insel.ch ; elisabeth.oppliger@insel.ch
UK	Dr Melanie Percy ; Professor Mary Frances McMullin	Belfast City Hospital	melanie.percy@belfasttrust.hscni.net

Other genes mutated in MPN

Recent studies have found many genes mutated in MPN, often with low to medium frequency. Their importance in the diagnosis and prognostic evaluation is yet to be precised. Those found with significant frequency on MPN can be sequenced to affirm the clonality of a disorder. The most common are presented below, with a list of labs offering mutation screening.

CBL
CBL encodes for an ubiquitin ligase able to target cytokine receptors for proteasome degradation. Its mutation has been described in MPN and mixed MDS-MPN.

TET2
TET2 has been found mutated in various myeloid disorders with frequencies varying from 5 to 20% depending on the MPN subtype.

EZH2 – ASXL1
These genes play a role in the epigenetic regulation.

Country	**Name**	**TET2**	**CBL**	**EZH2**	**ASXL1**	**Others**
France	Dr Lippert		ex 7-9			**DNMT3A** ex 15-to-23
Germany	Dr Schnittger	yes	ex 8-9	yes	exon 12	
Italy	Prof. Vannucchi ; Dr. Guglielmelli	ex 3 to 11	ex 7-8	Ex 2 to 20	exon 12	**IDH1/IDH2** ex 4; **DNMT3A** ex 15-to 23
Portugal	Dr Bento ; Dr Coucelo					**LNK** (ex-2)

Contacts:

Country	**Name**	**Institution**	**email**
France	Dr Eric Lippert	CHU de Bordeaux	eric.lippert@chu-bordeaux.fr
Germany	Dr Susanne Schnittger	MLL Munich Leukemia Laboratory	Susanne.schnittger@mll-online.com
Italy	Prof. Alessandro M. Vannucchi ; Dr. Paola Guglielmelli	Az. Ospedaliero-universitaria Careggi, University of Florence	paola.guglielmelli@unifi.it ; amvannucchi@unifi.it
Portugal	Dr Celeste Bento ; Dr Margarida Coucelo	Hospital Pediatrico de coimbra	celeste.bento@chc.min-saude.pt ; margarida.coucelo@chc.min-saude.pt

THPO

Thrombopoietin is the major cytokine stimulating megakaryopoiesis. Its gene has been found mutated in familial thrombocytosis (see this section).

Eric Lippert 30/1/12 20:08
Commentaire: lien

The following laboratories offer THPO sequencing:

Country	Name	Institution	Email
France	Dr. Eric Lippert	CHU de Bordeaux	Eric.lippert@chu-bordeaux.fr
Germany	Dr Susanne Schnittger	MLL Munich Leukemia Laboratory	Susanne.schnittger@mll-online.com

MPL

MPL encodes for the receptor for thrombopoietin. It has been found mutated in hereditary as well as acquired thrombocytosis. The mutations occur mainly in exon 10 of *MPL*, affecting S505 or W515.

Eric Lippert 30/1/12 20:09
Commentaire: lien familial thrombocytoses