REQUEST FORM: HEMATO-ONCO-GENETICS

SAMPLE INFORMATION		LNS BARCODE LABEL
Your sample identification Your ID Label	**Sample type / quantity:** ☐ Heparin: ..... ☐ EDTA: ..... ☐ Bone marrow: ..... ☐ Peripheral Blood: ..... ☐ Other: ..... **Date-Time of sampling:** ...../...../ .... H	LNS label

LABORATOIRE NATIONAL DE SANTE
NATIONAL CENTER OF GENETICS
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Forms available at www.lns.lu

PHYSICIAN REQUESTING THE TEST

Surname and first name of the doctor requesting the test

Address and country

Telephone / direct line

Fax

Date of request

Signature / Stamp

PATIENT INFORMATION

Birth name

First name

Married name

Sex

Date of birth

National identification number

Address and country

Patient covered by the CNS ☐ Yes ☐ No

*If not covered by the CNS, the patient will receive an invoice from the laboratory, which they may pass on to their insurance company, where applicable.

Copies to [Please note that results are returned only to the prescriber of the test, who is the only one authorized to give them to patients.]

PREANALYTICAL CONDITIONS

Karyogram and FISH	**At least 10 ml** heparinized blood (>10% Blasts) or **5mL** heparinized bone marrow	➔	 (green tube: Heparin)
Molecular genetics	**At least 10ml** peripheral blood (EDTA) or 5mL bone marrow EDTA For **qRT-PCR BCR/ABL** t(9;22)(p210)(quantitative) EDTA (10ml)	➔	 (purple tube: EDTA)
***Specific sample:**	For MDS, NHL and MM ➔ Bone marrow sample is mandatory		

CLINICAL INFORMATION *(essential for the interpretation of results)*

Diagnosis

☐ CML ☐ MPN* ☐ MDS* ☐ AML ☐ B-CLL ☐ MM/Plasmocytoma*

☐ B-NHL* ☐ T-NHL* ☐ B-ALL ☐ T-ALL ☐ .....

**Bone marrow sample mandatory*

☐ Suspicion ☐ Initial diagnosis ☐ Remission ☐ Control ☐ Recurrence ☐ Under treatment

☐ After bone marrow transplant : ☐ allograft Sex ☐F ☐ M ☐ Autograft

☐ After-chemotherapy ☐ .....

In case of a follow up / control, please send us initial reports, if they were not performed at LNS.

TESTS REQUESTED

Conventional cytogenetics and molecular cytogenetics (Heparin sample)

☐ KARYOGRAM (microscopic banding analysis) ☐ FISH **(Choose the Panel on Page 2)** ☐ Decision based on indication

Molecular genetics (inhouse Tests / EDTA sample required)

☐ B-Cell Clonality ☐ T-Cell Clonality ☐ BCR/ABL t(9;22) (p210) (quantitative) ☐ JAK2 (V617F)

☐ Other moleculargenetics test

(Please choose the molecular genetics analysis needed at Page 3 (collaboration with external, accredited laboratory)

Please sign the consent form on Page 3!

OTHER CLINICAL COMMENTS / SINGLE REQUESTS:

FISH PANELS *(If you like to have FISH analysis, please check the right Panel)*

☐ Anaplastic Large cell lymphoma

ALK Breakapart Probe (2p23.2-p23.1)

☐ Anaplastic Anemia

Del(7)(q22q31)
Centromere 6, 8 and 21
RB1/DLEU/LAMP (13q14.2 / 13q14.2 /13q34)
TP53/17CEN (17p13.1 / 17p11.1)

☐ Alk-positive DLBCL

ALK Breakapart Probe (2p23.2-p23.1)

☐ Alk-negative ALCL

ALK Breakapart Probe (2p23.2-p23.1)
IRF4/DUSP22 Breakapart (6p25)

☐ AML Panel

EVI1 (MECOM) Breakapart (3q26.2)
DEK-NUP214: t(6;9)(p23;q11)
RUNX1/RUNX1T1: t(8;21)(q21.3;q22.1)
MLL (KMT2A) Breakapart (11q23.3)
PML/RARA: t(15;17)(q24.1;q21.1)
CBFB/MYH11 : t(16 ;16)(q22 ;q13.1)

☐ B-ALL Adult Panel

MYC Breakapart probe (8q24.21)
BCR/ABL1: t(9;22)(q34;q22)
MLL (KMT2A) Breakapart (11q23.3)
IGH Breakapart (14q32.3)

☐ B-ALL Child Panel

P16 (CKDKN2A) (9q21.3 / 9q12)
BCR/ABL1: t(9;22)(q34;q22)
MLL (KMT2A) Breakapart (11q23.3)
TEL/AML1 (ETV6/RUNX1): t(12,21)(q13.2;q22.1)
IGH Breakapart (14q32.3)

☐ B-ALL Relapse Panel

ABL2 Breakapart (1q25.2)
PDGFRB Breakapart (5q32)
JAK2 Breakapart (9p24.1)
IGH Breakapart (14q32.3)
CRLF2 Breakapart (Xp22.33 / Yp11.3)

☐ B-NHL Panel

BCL6 Breakapart (3q27.3-q28)
MYC Breakapart probe (8q24.21)
IGH Breakapart (14q32.3)
BCL2 Breakapart (18q21.33-q22.1)

☐ Burkitt Lymphoma Panel

BCL6 Breakapart (3q27.3-q28)
MYC Breakapart probe (8q24.21)
IGH Breakapart (14q32.3)
BCL2 Breakapart (18q21.33-q22.1)
IGK Breakapart (2p11.2)
IGL Breakapart (22q11.21-q11.23)

☐ CEL / HES Panel

ABL2 Breakapart (1q25.2)
FIP1L1/CHIC2/PDGFRA (4q12)
PDGFRB Breakapart (5q32)
FGFR1 Break/Ampli (8p11.23-p11.22)
JAK2 Breakapart (9p24.1)
ABL1 Breakapart (9q34)
ETV6 Breakapart (12p13.2)

☐ CLL Panel

Centromere 3 / Centromere 12
MYB/CCND3/SEC63 (6p21.1 / 6q21 / 6q23.3)
MYC Breakapart probe (8q24.21)
ATM (11p11.1-q11.1 / 11q22.3)
RB1/DLEU/LAMP (13q14.2 / 13q14.2 /13q34)
IGH Breakapart (14q32.3)
TP53/17CEN (17p13.1 / 17p11.1)

☐ CMML Panel

FIP1L1/CHIC2/PDGFRA (4q12)
PDGFRB Breakapart (5q32)
FGFR1 Break/Ampli (8p11.23-p11.22)
BCR/ABL1/ASS1: t(9;22)(q34.1;q11.22)
JAK2 Breakapart (9p24.1)

☐ Diffuse Large B-cell Lymphoma Panel

BCL6 Breakapart (3q27.3-q28)
MYC Breakapart probe (8q24.21)
IGH Breakapart (14q32.3)
BCL2 Breakapart (18q21.33-q22.1)
IGK Breakapart (2p11.2)
IGL Breakapart (22q11.21-q11.23)

☐ Fanconi Panel

CKS1B/CDKN2C (1p32.3 / 1q21.3)
EVI1 (MECOM) Breakapart (3q26.2)
Del(7)(q22q31)

☐ Follicular Lymphoma Panel

BCL6 Breakapart (3q27.3-q28)
MYC Breakapart probe (8q24.21)
IGH Breakapart (14q32.3)
IGH-BCL2: t(14;18)(q32.3;q21.33)

☐ Haptosplenic T-cell Lymphoma Panel

Del(7)(q22q31)
Centromere 8 and 12

☐ Mantel cell lymphoma Panel

BCL6 Breakapart (3q27.3-q28)
MYC Breakapart probe (8q24.21)
P16 (CDKN2A) (9p21.3 / 9q12)
IGH Breakapart (14q32.3)
IGH/CCND1 Plus: t(11;14)(q13.3;32.33)
TP53/17CEN (17p13.1 / 17p11.1)
IGK Breakapart (2p11.2)
IGL Breakapart (22q11.21-q11.23)

☐ MALT Lymphoma Panel

Centromere 3
IGH Breakapart (14q32.3)
MALT Breakapart (18q21.31-q21.32)

☐ MDS Panel

Centromere X / Y
EVI1 (MECOM) Breakapart (3q26.2)
Del(5q)
Del(7)(q22q31)
Centromere 8
ETV6 Breakapart (12p13.2)
TP53/17CEN (17p13.1 / 17p11.1)
Del(20q)

☐ Multiple Myeloma Panel

CKS1B/CDKN2C (1p32.3 / 1q21.3)
5p15/9q22/15q22
MYC Breakapart probe (8q24.21)
RB1/DLEU/LAMP (13q14.2 / 13q14.2 /13q34)
IGH Breakapart (14q32.3)
TP53/17CEN (17p13.1 / 17p11.1)

☐ If IGH BA positive

IGH-FGFR3: t(4;14)
IGH-CCND3: t(6;14)
IGH-cMyc: t(8;14)
IGH-MYEOV : t(11;14)
IGH-MAF plus : t(14;16)
IGH-MAFB : t(14;20)

☐ MPN Panel

PDGFRB Breakapart (5q32)
BCR/ABL1/ASS1: t(9;22)(q34.1;q11.22)

☐ M. Waldenstroem Panel

Centromere 3 / Centromere 4
MYB/CCND3/SEC63 (6p21.1 / 6q21 / 6q23.3)
MYC Breakapart probe (8q24.21)
ATM (11p11.1-q11.1 / 11q22.3)
RB1/DLEU/LAMP (13q14.2 / 13q14.2 /13q34)
IGH Breakapart (14q32.3)
TP53/17CEN (17p13.1 / 17p11.1)
Centromere 18

☐ Nodal/Splenic Marginal Z.L

Centromere 13 and 12
BCL6 Breakapart (3q27.3-q28)
Del(7)(q22q31)

☐ sec AML Panel

EVI1 (MECOM) Breakapart (3q26.2)
Del(5q)
Del(7)(q22q31)
Centromere 8
MLL (KMT2A) Breakapart (11q23.3)
TP53/17CEN (17p13.1 / 17p11.1)

☐ T-ALL Panel

STIL/TAL1 (1p33)
TLX3 Breakapart (5q35.1)
MYB/CCND3/SEC63 (6p21.1 / 6q21 / 6q23.3)
TCRB Breakapart (7q34)
MYC Breakapart probe (8q24.21)
P16 (CDKN2A) (9p21.3 / 9q12)
TLX1 Breakapart (10q24.31)
MLL (KMT2A) Breakapart (11q23.3)
TCRAD Breakapart (14q11.2)

☐ T-NHL Panel

ATM (11p11.1-q11.1 / 11q22.3)
RB1/DLEU/LAMP (13q14.2 / 13q14.2 /13q34)
TCRAD Breakapart (14q11.2)

☐ T NK/LGL Leukemia Panel

MYB/CCND3/SEC63 (6p21.1 / 6q21 / 6q23.3)
Del(7)(q22q31)
Centromere 8
ATM (11p11.1-q11.1 / 11q22.3)
D13S319 (13q14.2-13q34 / 13q34)
TP53/17CEN (17p13.1 / 17p11.1)

☐ Other (please specify)

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Moleculargenetics test *(externally accredited laboratory: Institute of Immunology and Genetics, Kaiserslautern, Germany)*

B-NHL/CLL

☐ MG - TP53

☐ MG - IGHV (clonality, hypermutation status (CLL))

☐ MG - gene analysis B-CLL (e.g for therapy indication) (TP53, BIRC3, NOTCH1, SF3B1)

☐ MG - specific mutation analysis – Lymphoma Panel (BRAF, MYD88, NRAS, SF3B1, MYC)

Multiple Myeloma / Plasmocytoma

☐ MG – specific mutation analysis (incl. BRAF, NRAS, KRAS)

Waldenstrom's disease

☐ MG - gene analysis (CXCR4, MYD88)

CML

☐ MG - abl1 sequencing (TKI resistance resp. therapy failure)

MPN

☐ MG - Diagnostics stage 1 - JAK2 (exon 12-14),CALR,MPL

☐ MG - Diagnostics stage 2 – Specific mutation analysis (incl. CBL, IDH1, IDH2, SRSF2, SF3B1, U2AF1)

☐ MG - Diagnostics stage 3 – gene analysis (TP53, RUNX1, ASXL1)

☐ Polyglobulia, suspicion of PV (JAK2 exon 12 – 14)

MDS

☐ MG - Diagnostics stage 1 – specific mutation analysis (incl. SF3B1, SETBP1, IDH1 & 2, U2AF1, CBL, EZH2, NRAS, NPM1)

☐ MG - Diagnostics stage 2 –gene analysis (incl. ASXL1, RUNX1, TP53, DNMT3A, ETV6, KRAS)

☐ MG – Zusätzliche Analyse: TET2

MPN - CMML

☐ MG- gene analysis (TP53,RUNX1,ASXL1,TET2)

AML

☐ SNP - Specific mutation analysis – AML panel (incl. NPM1(288fs), FLT3(690/835), IDH1(132), IDH2(140/172), cKIT(541/816))

☐ MG - ASXL1, RUNX1, CEBPA, TP53

☐ MG: - FLT3 (ITD)

☐ Other (please specify)

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CONSENT FORM

By signing below, I consent to the genetic testing as indicated on the test request form in order to determine the genetic cause of the above-mentioned clinical condition.
I hereby confirm, that the requesting physician (signed below) has informed me in detail about the medical necessity, potential benefits and limitations of the planned genetic testing. In addition, possible consequences from the communication of the test result (e.g. psychological burden) were discussed.

With your consent, **unused sample material** will be stored. Please decide if and how unused sample material may be used. I consent to the use of this material	
- for verifying the obtained results, laboratory quality assurance and future diagnostic investigations.	☐ **Yes** ☐ **No**
- for the purposes of academic teaching and scientific research.	☐ **Yes** ☐ **No**
I consent being informed[1] of **secondary/additional findings[2]** if these have direct medical implications (e.g. possible prophylactic measures or therapeutic consequences) or may constitute a significant genetic risk for me or my family members. [1] According to current scientific understanding and based on the present recommendations of the American College of Medical Genetics and Genomics (ACMG). [2] Variants that may be obtained incidentally during the course of genetic testing and are associated with a condition other than the one for which testing was originally indicated.	☐ **Yes** ☐ **No**
If necessary, I consent that my sample material, my personal data and the test request is **forwarded** to a specialized cooperating laboratory or institute in order to investigate the above-stated condition in question.	☐ **Yes** ☐ **No**
I consent that data and test results collected in the context of the condition in question may be used in de-identified (pseudonymized) form for **scientific research**[1] and published in anonymized form in medical journals. [1] e.g. to improve the understanding of the molecular pathogenesis and develop new diagnostic or treatment possibilities)	☐ **Yes** ☐ **No**
I consent that my personal data and test results will be stored **longer than the statutory retention period of 10 years**.	☐ **Yes** ☐ **No**

I am aware that my consent applies to me and/or to my minor child(ren) and I may withdraw this consent at any time, verbally or in writing, without giving reasons.

Place and date:_____

Signature of requesting physician _____

Signature of patient or legal representative(s) _____

The LNS processes the data collected for the performance of analyzes and the transmission of results. To find out more about the management of personal data and to exercise your rights, please refer to the data protection policy on the LNS website at the following address: https://lns.lu/donnees-personnelles/

Please check next page