Cincinnati Children's
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LABORATORY OF GENETICS AND GENOMICS
For local courier service and/or inquiries, please contact 513-636-4474 • Fax: 513-636-4373
www.cincinnatichildrens.org/moleculargenetics • Email: moleculargenetics@cchmc.org

Mailing Address:
3333 Burnet Avenue, Room R1042
Cincinnati, OH 45229

HEMATOLOGY TEST REQUISITION

All Information Must Be Completed Before Sample Can Be Processed

PATIENT INFORMATION

Patient Name: _____, _____, _____
Last First MI

Address: _____

_____

Home Phone: _____

MR# _____ Date of Birth _____ /_____ / _____

Sex: ☐ Male ☐ Female

ETHNIC/RACIAL BACKGROUND (Choose All)

☐ European American (White)
☐ African-American (Black)
☐ Native American or Alaskan
☐ Asian-American
☐ Pacific Islander
☐ Ashkenazi Jewish ancestry
☐ Latino-Hispanic _____
(specify country/region of origin)
☐ Other _____
(specify country/region of origin)

BILLING INFORMATION

☐ **REFERRING INSTITUTION**

Institution: _____

Address: _____

City/State/Zip: _____

Accounts Payable Contact Name: _____

Phone: _____

Fax: _____

Email: _____

REFERRING PHYSICIAN

Physician Name (print): _____

Address: _____

Phone: (_____) _____ Fax: (_____) _____

Email: _____

Genetic Counselor/Lab Contact Name: _____

Phone: (_____) _____ Fax: (_____) _____

Email: _____

_____ Date: ____/ _____/ ____

Referring Physician Signature (REQUIRED)

INDICATIONS/DIAGNOSIS/ICD-10 CODE

Reason for Testing:

☐ Diagnosis in symptomatic patient
☐ Asymptomatic infant with abnormal newborn screen
☐ Carrier (Heterozygote) testing
☐ Presymptomatic diagnosis of at-risk sibling
☐ Prenatal testing (by previous arrangement only)
☐ Family history of disease
☐ Other: _____

CLINICAL HISTORY

☐ Hepatomegaly
☐ Skeletal abnormalities
☐ Splenomegaly
☐ Other positive findings

Has patient received a bone marrow transplant? ☐ Yes ☐ No

If yes, date of bone marrow transplant _____

Percent engraftment _____

SAMPLE/SPECIMEN INFORMATION

Has patient received a bone marrow transplant? ☐ Yes ☐ No

Note: For post-transplant patients, we accept pre-transplant samples or post-transplant skin fibroblasts **ONLY** (blood, saliva, and cytobrushes are not accepted). Culturing of skin fibroblasts is done at an additional charge.

SPECIMEN TYPE: ☐ Amniotic fluid ☐ Blood ☐ Cytobrushes ☐ CVS

☐ Cord blood ☐ Bone marrow ☐ Tissue (specify): _____

Specimen Date: _____ / _____ / _____ Time: _____

Specimen Amount: _____

Please call before sending tissue samples.

DRAWN BY: _____

*Phlebotomist must initial tube of specimen to confirm sample identity.

- Single gene tests require at least 3mL whole blood in EDTA.
- Panels require at least 5 mL whole blood in EDTA.
- **Hemoglobin Disorder** tests require **TWO** tubes of whole blood in EDTA (preferably a 5mL and a 2mL, 7mL total). Ship refrigerated.

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Patient Name: _____ Date of Birth: _____

MEDICAL HISTORY

Clinic notes and laboratory data attachment, in lieu of writing in medical history, is also acceptable.

Patient's medical history: _____

_____

_____

_____

Date of last transfusion: _____

Provisional Hb Diagnosis (for Hemoglobin Disorder tests): _____

_____

_____

For Hemoglobin Disorders testing, please provide a copy of the following laboratory test results, as available: CBC, Hemoglobin electrophoresis, and iron studies.

PEDIGREE OR FAMILY HISTORY

Parental Consanguinity ☐ Y ☐ N

TEST(S) REQUESTED

Hemoglobin Disorders

Collect **TWO** tubes of whole blood: 5mL EDTA **and** 2mL EDTA. Ship refrigerated.

A hemoglobin electrophoresis is included as part of the Hemoglobin Disorders assays to aid the interpretation of genetic results. Charges may apply.

- ☐ Alpha *(HBA1/2)* and Beta *(HBB)* Globin Gene Locus Analysis
  - ☐ *HBA1* and *HBA2* (α-globin) sequence analysis
  - ☐ *HBA1* and *HBA2* (α-globin) locus del/dup analysis *(HBA1/2 & HBZ)*
  - ☐ *HBB* (β-globin) sequence analysis
  - ☐ *HBB* (β-globin) locus del/dup analysis *(HBB, HBD, HBG1/2, & HBE)*
- ☐ *HBD* (Δ-globin) sequence analysis
- ☐ *HPFH* and Gamma *(HBG1/2)* Globin Gene Analysis
  - ☐ *HBG1* and *HBG2* (γ-globin) sequence analysis
  - ☐ *HBB* (β-globin) locus del/dup analysis *(HBB, HBD, HBG1/2, & HBE)*

Thrombophilic Disorders

- ☐ Factor V (Leiden)
- ☐ *MTHFR* (677 C>T and 1298 A>C) genotype
- ☐ Prothrombin (Factor II) G20210A genotype
- ☐ Thrombophilic polymorphism panel (Factor V- Leiden and Factor II-Prothrombin G20210A)

Platelet Disorders

- ☐ **Platelet Disorders Gene Sequencing Panel**
  (ABCG5, ABCG8, ACBD5, ACTN1, ANKRD26, ANO6, AP3B1, AP3D1, ARPC1B, BLOC1S3, BLOC1S6, CD36, CYCS, DIAPH1, DTNBP1, ETV6, FERMT3, FLI1, FLNA, FYB1, GATA1, GFI1B, GP1BA, GP1BB, GP6, GP9, HOXA11, HPS1, HPS3, HPS4, HPS5, HPS6, ITGA2, ITGA2B, ITGB3, LYST, MASTL, MECOM, MLPH, MPIG6B, MPL, MYH9, NBEA, NBEAL2, ORAI1, P2RX1, P2RY12, PLA2G4A, PRKACG, RAB27A, RASGRP2, RBM8A, RUNX1, SLFN14, STIM1, STX11, STXBP2, TBXA2R, TBXAS1, THPO, TUBB1, UNC13D, VIPAS39, VPS33B, VPS45, WAS)

- ☐ **Reflex to deletion/duplication for all available genes†**
  (ABCG5, ABCG8, AP3B1, BLOC1S3, BLOC1S6, DTNBP1, FLNA, GATA1, GP1BA, GP1BB, GP9, HPS1, HPS3, HPS4, HPS5, HPS6, ITGA2B, ITGB3, LYST, MLPH, MPL, MYH9, ORAI1, RAB27A, RASGRP2, RBM8A, STIM1, STX11, STXBP2, UNC13D, VPS45, WAS)
  - ☐ Reflex to deletion/duplication of single gene(s)† (specify): _____
    _____

Hemolytic Anemia

- ☐ Hemolytic Anemia Panel (includes sequence analysis of *ABCG5, ABCG8, AK1, ALAS2, ALDOA, ANK1, ATP11C, C15orf41, CDAN1, COL4A1, EPB41, EPB42, G6PD, GATA1, GCLC, GPI, GPX1, GSR, GSS, GYPC, HK1, KCNN4, KIF23, KLF1, LPIN2, NT5C3A, PFKM, PGK1, PIEZO1, PKLR, RHAG, SEC23B, SLC2A1 (GLUT1), SLC4A1, SPTA1, SPTB, TPI1, XK)*
  - ☐ Reflex to deletion/duplication of entire panel†
  - ☐ Reflex to deletion/duplication of single gene(s) (specify): _____
    _____
- ☐ Congenital Dyserythropoietic Anemia (CDA) Panel (includes sequence analysis of *ALAS2, C15orf41, CDAN1, GATA1, KIF23, KLF1, LPIN2, SEC23B)*
  - ☐ Reflex to deletion/duplication of entire panel†
  - ☐ Reflex to deletion/duplication of single gene(s) (specify): _____
    _____
  - ☐ Reflex to Hemolytic Anemia Panel reanalysis, if indicated
- ☐ RBC Membrane Disorders Panel (includes sequence analysis of *ABCG5, ABCG8, ANK1, ATP11C, COL4A1, EPB41, EPB42, GYPC, KCNN4, PIEZO1, RHAG, SLC2A1, SLC4A1, SPTA1, SPTB, XK)*
  - ☐ Reflex to deletion/duplication of entire panel†
  - ☐ Reflex to deletion/duplication of single gene(s) (specify): _____
    _____
  - ☐ Reflex to Hemolytic Anemia Panel reanalysis, if indicated
- ☐ RBC Enzymopathy Panel (includes sequence analysis of *AK1, ALDOA, G6PD, GCLC, GPI, GPX1, GSR, GSS, HK1, NT5C3A, PFKM, PGK1, PKLR, TPI1)*
  - ☐ Reflex to deletion/duplication of entire panel
  - ☐ Reflex to deletion/duplication of single gene(s) (specify): _____
    _____
  - ☐ Reflex to Hemolytic Anemia Panel reanalysis, if indicated

Erythrocytosis

- ☐ Erythrocytosis Gene Sequencing Panel
  (BPGM, EGLN1, EPAS1, EPOR, HBA1, HBA2, HBB, JAK2, VHL)

Thrombocytosis

- ☐ Thrombocytosis Gene Sequencing Panel
  (CALR, JAK2, MPL, THPO)

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Patient Name: _____ Date of Birth: _____

TEST(S) REQUESTED, CONTINUED

☐ Targeted (family specific) variant analysis for _____ gene
If testing was **not** performed at CCHMC, please include proband's report and at least 100ng of proband's DNA to use as a positive control.

Proband's name _____

Proband's DOB _____

Proband's variant _____

Please call 513-636-4474 to discuss any family-specific variant analysis with genetic counselor prior to shipment.

Note: Any gene in the panels listed may be ordered individually through custom gene sequencing.

[1]Deletion/Duplication analysis of *ACBD5, ACTN1, ANKRD26, ANO6, AP3D1, ARPC1B, CD36, CYCS, DIAPH1, ETV6, FERMT3, FLI1, FYB1, GFI1B, GP6, HOXA11, ITGA2, MASTL, MECOM, MPIG6B, NBEA, NBEAL2, P2RX1, P2RY12, PLA2G4A, PRKACG, RUNX1, SLFN14, TBXA2R, TBXAS1, THPO, TUBB1, VIPAS39* and *VPS33B* is not available at this time.

CUSTOM GENE SEQUENCING

Gene(s) to be sequenced (specify): _____

_____

Only genes with clear published functional relationship to rare diseases are accepted.

Suspected syndrome/ condition: _____

Please choose one of the following:

☐ Full gene(s) sequencing

☐ Full gene(s) sequencing with reflex to deletion and duplication analysis, if indicated **(please see list of genes available for del/dup at www.cincinnatichildrens.org/deldup)**

☐ Familial variant analysis

Proband's name: _____

Proband's DOB: _____

Proband's variant: _____

Patient's relation to proband: _____

If testing was not performed at Cincinnati Children's, please include proband's report and at least 100ng of proband's DNA to use as a positive control.

DELETION AND DUPLICATION ASSAY

Gene(s) to be analyzed (specify): _____

_____

Please see list of available genes at: www.cincinnatichildrens.org/deldup

Suspected syndrome/ condition: _____

Please choose one of the following:

☐ Deletion and duplication analysis of gene(s) specified above

☐ Deletion and duplication analysis of gene(s) specified above with reflex to sequencing, if indicated

☐ Analysis of gene(s) specified above from previously analyzed deletion and duplication

☐ Familial deletion analysis

Proband's name: _____

Proband's DOB: _____

Proband's variant: _____

Patient's relation to proband: _____

If testing was not performed at Cincinnati Children's, please include proband's report and at least 100ng of proband's DNA to use as a positive control.

Deciding Which Hemoglobin Disorders Test to Order

- If your patient's clinical symptoms and hematology testing do not suggest a specific diagnosis, order the Alpha *(HBA1/2)* and Beta *(HBB)* Globin Gene Locus Analysis. This includes PCR-based sequencing of *HBA* and *HBB* as well as deletion/duplication (del/dup) analysis by MLPA of both genes.
- If a common alpha thalassemia deletion is suspected, order the *HBA1/HBA2* (alpha globin) deletion analysis.
  - If a suspected alpha globin deletion is not detected, order the *HBA1/HBA2* (alpha globin) sequence analysis reflexively.
- If a structural alpha globin variant is suspected, order the *HBA1/HBA2* (alpha globin) sequence analysis.
- If a structural beta globin defect or beta thalassemia mutation(s) are suspected, order the *HBB* (beta globin) sequence analysis.
- If a specific globin mutation has been identified in a family member, order Targeted (family specific) variant analysis (top left of this page). These tests detect only the specified mutation/deletion.