



Planning a hemoglobinopathy study

Planning a research study in the hemoglobinopathies with multiple patients, multiple time points and multiple tests can be challenging. It is the mission of the red blood cell laboratory to provide the most cost effective resource for clinical studies in the hemoglobinopathies. Support includes planning, and protocol development for patient recruitment, and IRB issues. We can provide protocols for sample collection, storage and shipment, as well as database development for keeping track of samples and data and support for data analysis.

As a starting point, please consider which assays you would like to do. A number of our assays can be used as clinical diagnostics as well as research tools. Other tests are for research purposes only. Check the description of our routine assays and start planning with the table below.

Contact us and we will provide advise, consider tests that are not on the list but are available, and can help you to decide on the development of new assays required for the planned study. We will then provide you with a quote for planning purposes.

Clinical Diagnostics and research tools

Please consider number of patients and number of time points

tests requested

	<i>Routine hemoglobinopathy</i>	
	Cellulose acetate electrophoresis (CAE)	
	Citrate agar acid electrophoresis	
	Isoelectric focusing (IEF)	
	Cation exchange HPLC	
	Free Erythrocyte Protoporphyrin (FEP)	
	Counts of pitted red blood cells (Pit count)	
	Sickle Solubility Test (SST)	
	<i>Molecular assays</i>	
	Linear Array	
	Multiplex Gap PCR	
	DNA sequencing	
	Multiplex Ligation probe amplification	
	<i>Special Hb tests</i>	
	Heat Stability	
	Isopropanol stability	
	<i>Red cell function</i>	
	Ektacytometry	

Additional assays considered:

Our contact information:

Hemoglobinopathy laboratory Children's Hospital & Research Center Oakland
 Bruce Lyons Memorial Building, Room 202,
 747 52nd St, Oakland, CA 94609
 Phone: (510) 450-7688, or (510) 450-7944 Fax: (510) 601-3928
 Email: mazimi@chori.org

Research laboratory assays

Red cell function

Advia 120 analysis	
Reticulocytes	
Erythropoietin	
Blood flow	
Ektacytometry	
Oxygen Affinity	
PS exposure	
Red Cell survival	

Blood analysis

Advia 120 analysis	
Amino Acid composition	
NO Metabolism	
Arginase concentration	
Arginase activity	
Cell free hemoglobin	
Lactate Dehydrogenase (LDH)	
Exhaled NO	
Nitrite and Nitrate (NOx)	
Hemostasis	
D-dimer	
Fragment 1+2	
Thrombin-Anti Thrombin	
Tissue Factor	
Cytokines and Growth factors	
Cytokine panel 1	
Cytokine panel 2	
TGFb	
VEGF	
Adhesion	
Adhesion factors	
L-Selectin	
E-Selectin	
P-Selectin	
ICAM1	
ICAM3	
VCAM	
Inflammation	
sPLA2 concentration	
sPLA2 activity	
IAP	
CRP	
sCD40L	

Additional assays considered:

Our contact information:

RBC laboratory Children's Hospital Oakland Research Institute
5700 Martin Luther King Jr. Way, Room 1114, Oakland, CA 94609
Phone: (510) 450-7621, or (510) 450-7620 Fax: (510) 450-7910
Email: slarkin@chori.org