

A1. Site/Study ID #: _____ / G _____ A2. Visit Date: _____ / _____ / _____
Month Day Year A3. Staff Initials: _____
 To DCC

SECTION B: GENERAL INCLUSION/EXCLUSION CRITERIA

B1. Date of Birth: **ELG3B01MM V2(2)/ ELG3B01DD V2(2)/ ELG3B01YY V2(2)/ ELG3B01DT**
Month Day Year

- B2. Disease before live transplant: **ELG3B02 V2(3)**
1. Bile Acid Synthesis and Metabolism Disorders.
 2. Progressive Familial Intrahepatic Cholestasis (PFIC)
 3. a1-Antitrypsin (a 1-AT) Deficiency
 4. Alagille Syndrome (AGS)

GENERAL INCLUSION CRITERIA:

- B3. Birth through 25 years at enrollment 1. Yes 2. No **ELG3B03 V2(3)**
- B10. Has had liver transplant 1. Yes 2. No **ELG3B010 V2(3)**

GENERAL EXCLUSION CRITERIA:

- B5. Inability to comply with follow-up 1. Yes 2. No **ELG3B05 V2(3)**
- B6. Failure to sign consent or HIPAA medical record release form 1. Yes 2. No **ELG3B06 V2(3)**
- B7. Date consent form signed: **ELG3B07MM V2(2)/ ELG3B07DD V2(2)/ ELG3B07YY V2(4)/ ELG3B07DT**
Month Day Year

SECTION C: BILE ACID SYNTHESIS AND METABOLISM DISORDERS

INCLUSION CRITERIA:

- C1. Diagnosis of bile acid synthesis disorder before transplant confirmed by:
- a. Biochemical evidence of defect by FAB-MS **OR** GC-MS of urine or serum **-OR-** 1. Yes 2. No **ELG3C01**
 - b. Two identified pathological genetic mutations in one enzyme of bile acid synthetic pathway 1. Yes 2. No **ELG3C02**

EXCLUSION CRITERIA:

- C3. Isolated enzymatic or structural peroxisomal defect producing a recognized syndrome disorder 1. Yes 2. No **ELG3C03 V2(3)**

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SECTION D: PROGRESSIVE FAMILIAL INTRAHEPATIC CHOLESTASIS

INCLUSION CRITERIA:

D1. Diagnosis of PFIC by (must meet requirements of Section A or Sections B and C):

a. Documented two mutant alleles in:

- i. *ATP8B1* (F1C1) gene **-OR- ELG3D1AI V2(3)** 1. Yes 2. No
- ii. *ABCB11* (BSEP) gene **-OR- ELG3D1AII V2(3)** 1. Yes 2. No
- iii. *ABCB4* (MDR3) gene **ELG3D1AIII V2(3)** 1. Yes 2. No

-OR-

b. Evidence of chronic liver disease by:

- i. Clinical or biochemical hepatic abnormalities of >6 months **-OR- ELG3D1BI V2(3)** 1. Yes 2. No
- ii. Clinical or histologic stigmata of chronic liver disease **-OR- ELG3D1BII V2(3)** 1. Yes 2. No
- iii. Sibling of known individual affected by PFIC **ELG3D1BIII V2(3)** 1. Yes 2. No
- iv. Recurrent and episodic cholestatic disease occurring on more than two occasions with episodes separated by at least 3 months and within other known cause. **ELG3D1BIV V2(3)** 1. Yes 2. No

-AND-

c. Evidence of cholestasis by:

- i. Fasting serum bile acid > 3x ULN for age **-OR- ELGD1CI V2(3)** 1. Yes 2. No
- ii. Direct bilirubin > 2mg/dL **-OR- ELGD1CII V2(3)** 1. Yes 2. No
- iii. Fat soluble vitamin deficiency **-OR- ELGD1CIII V2(3)** 1. Yes 2. No
- iv. GGTP > 3x ULN for age **-OR- ELGD1CIV V2(3)** 1. Yes 2. No
- v. Intractable pruritus explainable only by liver disease **ELGD1CV V2(3)** 1. Yes 2. No

EXCLUSION CRITERIA:

D2. Presence of other known causes of chronic cholestasis **ELG3D02 V2(3)** 1. Yes 2. No

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SECTION E: a1-ANTITRYPSIN (a 1-AT) DEFICIENCY

INCLUSION CRITERIA:

E1. Presence of liver disease before liver transplant (check all that apply – must have at least one)

- a. Neonatal cholestasis **ELG3E1A V2(3)** 1. Yes 2. No
- b. AST or ALT > 1.25 x ULN **ELG3E1B V2(3)** 1. Yes 2. No
- c. Impaired hepatic synthetic function **ELG3E1C V2(3)** 1. Yes 2. No
- d. Hepatomegaly **ELG3E1D V2(3)** 1. Yes 2. No
- e. Portal hypertension or cirrhosis **ELG3E1E V2(3)** 1. Yes 2. No
- f. Abnormal liver biopsy histology **ELG3E1F V2(3)** 1. Yes 2. No

–AND–

E2. Diagnosis of α 1-AT deficiency by: (must have A or C):

- a. Low serum α 1-AT level (**ELG3E2AMG V2(10)**__mg/dL) **–OR– ELG3E2A V2(3)** 1. Yes 2. No
- c. Clear histologic evidence of α 1-AT deficiency liver disease on the explanted liver **ELG3E2C V2(3)** 1. Yes 2. No
- b. At least one of the following:
 - i. PiZZ phenotype **–OR– ELG3E2BI V2(3)** 1. Yes 2. No
 - ii. PiSZ phenotype **–OR– ELG3E2BII V2(3)** 1. Yes 2. No
 - iii. PiZZ genotype **–OR– ELG3E2BIII V2(3)** 1. Yes 2. No
 - iv. PiSZ genotype **ELG3E2BIV V2(3)** 1. Yes 2. No

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SECTION F: ALAGILLE SYNDROME

INCLUSION CRITERIA:

F1. Presence of liver disease BEFORE TRANSPLANT **-AND-** 1. Yes 2. No **ELG3F01 V2(3)**

F2. Confirmed diagnosis of AGS before transplant 1. Yes 2. No **ELG3F02 V2(3)**

a. Diagnostic Characteristics (specify one of the following scenarios): **ELG3F2A**

	Family History Of AGS^a	Paucity of interlobular bile ducts	Jagged1^d or Notch2 mutations	Number of clinical criteria
1.	<input type="checkbox"/> Present or absent	Present	Identified ^b	Any or no features
2.	<input type="checkbox"/> None (proband)	Present	Not identified ^c	3 or >
3.	<input type="checkbox"/> None (proband)	Absent or unknown	Not identified	4 or >
4.	<input type="checkbox"/> None (proband)	Absent or unknown	Identified	1 or >
5.	<input type="checkbox"/> Present	Present	Not identified	1 or >
6.	<input type="checkbox"/> Present	Absent or unknown	Not identified	2 or >
7.	<input type="checkbox"/> Present	Absent or unknown	Identified	Any or no features

^aFamily history = AGS present in a first degree relative

^bIdentified = Jagged1 mutation may have been identified in clinical or research laboratory

^cNot identified = Not identified on mutation screening, or not screened for

^dJagged1 mutation = mutation, whole gene deletion or deletion of chromosome 20p which includes Jagged1 locus

Major clinical criteria include cholestasis, consistent cardiac, renal, ocular disease, butterfly vertebrae, or characteristic "Alagille" facies of childhood or adulthood. The specific clinical criteria are:

Cardiac: Heart murmur (with further studies to clarify), Pulmonary stenosis (valvular, pulmonary artery stenosis), pulmonary atresia, tetralogy of Fallot, ASD or VSD.

Ocular: posterior embryotoxon or other anterior chamber defect, retinal pigmentary anomalies

Vertebral: butterfly vertebrae

Characteristic facial features: broad forehead, deep set eyes, pointed chin in child (preteen) or prognathism in adults, triangular face.

Renal: functional defects (such as tubular acidosis), renal insufficiency, renal vascular hypertension, vesicoureteral reflux, structural defects (agenesis, small kidneys, renal cysts, renal artery stenosis, dysplastic kidneys)

Cholestasis: See question F3 for evidence of cholestasis.

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F3. Evidence of cholestasis: (check all that apply)

- a. Fasting total serum bile acid > 3x ULN for age **ELG3F03A V2(2)**
- b. Direct bilirubin > 2 mg/dl **ELG3F03B V2(2)**
- c. Fat soluble vitamin deficiency otherwise unexplainable **ELG3F03C V2(2)**
- d. yGTP > 3x ULN for age **ELG3F03D V2(2)**
- e. Intractable pruritus explainable only by liver disease **ELG3F03E V2(2)**

SECTION G: SUMMARY

G1. Is the subject eligible? 1. Yes 2. No 3. Eligible by exemption **ELG3G1**

ELG3INSIG V2(3)

ELG3SIGMM V2(2)/ ELG3SIGDD V2(2)/ ELG3SIGYY V2(4)/ ELG3SIGDT

Investigators Signature

Date