

Patients in the U.S. with a suspected or confirmed diagnosis of a lysosomal storage disease (LSD) are invited to take part in Invitae Detect LSDs, a sponsored genetic testing program brought to you by Invitae Corporation.

The patient must meet the eligibility criteria below to qualify for the program. Please fill out, print, and sign this form and include it when sending in the specimen. Additional information about the ordering process can be found at www.invitae.com/detectLSDs.

To submit orders for genetic testing outside of this program, please order through Invitae's online portal or use a standard requisition form, accessible at www.invitae.com/order-forms.

Patient name	Date of birth (MM/DD/YYYY)
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INVITAE DETECT LSDs PROGRAM ELIGIBILITY CRITERIA

This program is available to patients in the U.S. suspected of having a lysosomal storage disease based on one or more of the following:

- Clinical features (see symptom list below)**
- Suspicion or known diagnosis of a specific lysosomal storage disease (specify disorder on page 2)**
Age at onset: _____ Clinical diagnosis: _____
- Family history of lysosomal storage disease**
Specify disorder: _____
- Lab result suggestive of lysosomal storage disease**
 - Elevated GAGs: Specify type(s) _____
 - Abnormal LSD enzyme analysis: Enzyme: _____ Patient value: _____ Reference range: _____
- Presumptive positive NBS disorder**
Specify disorder: _____

If you selected "clinical features" above, select all that apply in the following list:

Heart:

- Evidence of storage on heart biopsy
- Dilated cardiomyopathy
- Hypertrophic cardiomyopathy
- Valvular disease

Gastrointestinal:

- Evidence of storage on liver biopsy
- Hepatosplenomegaly/ Hepatomegaly/ Splenomegaly

Kidney:

- Chronic kidney failure
- Evidence of storage on kidney biopsy
- Proteinuria of unknown etiology

Nervous system:

- Acroparesthesia
- Macrocephaly
 - Limb girdle muscular dystrophy
 - Regression of milestones
 - Seizures
 - Stroke

List other relevant clinical information (symptoms, imaging studies, etc):

Eye:

- Cherry red spot
- Corneal clouding
- Corneal verticillata
- Horizontal gaze palsy
- Oculomotor apraxia
- Retinal blindness
- Retinal/scleral vessel tortuosity
- Supranuclear gaze palsy

Skeletal:

- Bone crisis
- Carpal tunnel in childhood
- Dysostosis multiplex
- Erlenmeyer flask deformity
- Focal lytic/sclerotic lesions
- Gibbus deformity
 - Pathological fractures not related to cancer
 - Short stature

Other:

- Angiokeratomas
- Anhydrosis/hypohydrosis
- Facial coarsening
- Hirsutism
- Hearing loss (conductive, sensorineural, or mixed)
- Unexplained tinnitus

INVITAE DETECT LSDs PROGRAM ELIGIBILITY/CLINICAL INFORMATION (continued)

If you selected "suspicion or known diagnosis of a specific lysosomal storage disease" on page 1, specify disorder in the following list:

- | | |
|---|--|
| <input type="checkbox"/> alpha-mannosidosis | <input type="checkbox"/> Mucopolysaccharidosis type IIID |
| <input type="checkbox"/> Aspartylglucosaminuria | <input type="checkbox"/> Mucopolysaccharidosis type IVa |
| <input type="checkbox"/> beta-mannosidosis | <input type="checkbox"/> Mucopolysaccharidosis type IX |
| <input type="checkbox"/> cystinosis | <input type="checkbox"/> Mucopolysaccharidosis type VI |
| <input type="checkbox"/> Danon disease | <input type="checkbox"/> Mucopolysaccharidosis type VII |
| <input type="checkbox"/> Fabry disease | <input type="checkbox"/> Multiple sulfatase deficiency |
| <input type="checkbox"/> Farber disease | <input type="checkbox"/> Neuronal ceroid lipofuscinosis 1 (CLN1) |
| <input type="checkbox"/> Fucosidosis | <input type="checkbox"/> Neuronal ceroid lipofuscinosis 10 (CLN10) |
| <input type="checkbox"/> Galactosialidosis | <input type="checkbox"/> Neuronal ceroid lipofuscinosis 14 (CLN14) |
| <input type="checkbox"/> GM1 gangliosidosis, Mucopolysaccharidosis IVb | <input type="checkbox"/> Neuronal ceroid lipofuscinosis 2 (CLN2) |
| <input type="checkbox"/> GM2-gangliosidosis, AB variant | <input type="checkbox"/> Neuronal ceroid lipofuscinosis 3 (CLN3) |
| <input type="checkbox"/> Infantile sialic acid storage disease, Salla disease | <input type="checkbox"/> Neuronal ceroid lipofuscinosis 5 (CLN5) |
| <input type="checkbox"/> Krabbe disease | <input type="checkbox"/> Neuronal ceroid lipofuscinosis 6 (CLN6) |
| <input type="checkbox"/> Lysosomal acid lipase deficiency | <input type="checkbox"/> Neuronal ceroid lipofuscinosis 7 (CLN7) |
| <input type="checkbox"/> Metachromatic leukodystrophy | <input type="checkbox"/> Neuronal ceroid lipofuscinosis 8 (CLN8) |
| <input type="checkbox"/> Mucopolipidosis III gamma | <input type="checkbox"/> Niemann Pick types A and B |
| <input type="checkbox"/> Mucopolipidosis type I, Sialidosis I | <input type="checkbox"/> Niemann-Pick type C |
| <input type="checkbox"/> Mucopolipidosis type II alpha/beta, Mucopolipidosis III alpha/beta | <input type="checkbox"/> Pompe disease |
| <input type="checkbox"/> Mucopolipidosis type IV | <input type="checkbox"/> Prosaposin deficiency, SapA deficiency (Krabbe variant), SapB deficiency (MLD variant), SapC deficiency (Gaucher variant) |
| <input type="checkbox"/> Mucopolysaccharidosis IIIA | <input type="checkbox"/> Pycnodysostosis |
| <input type="checkbox"/> Mucopolysaccharidosis IIIB | <input type="checkbox"/> Sandhoff disease |
| <input type="checkbox"/> Mucopolysaccharidosis type I | <input type="checkbox"/> Schindler disease |
| <input type="checkbox"/> Mucopolysaccharidosis type II | <input type="checkbox"/> Tay-Sachs disease |
| <input type="checkbox"/> Mucopolysaccharidosis type IIIC | |

By signing this form, the medical professional acknowledges that the individual/family member authorized to make decisions for the individual (collectively, the "Patient") has been supplied information regarding and consented to undergo genetic testing, substantially as set forth in Invitae's Informed Consent for Genetic Testing (www.invitae.com/patient-consent) and in connection with the Program, and has been informed that Invitae may notify them of clinical updates related to genetic test results (in consultation with the ordering medical professional as indicated). The medical professional warrants that he/she will not seek reimbursement for this no-charge test from any third party, including but not limited to federal healthcare programs. The medical professional also hereby acknowledges that organization and clinician contact information provided in the order may be shared with third parties, including commercial organizations, that may contact the medical professional directly in connection with the Program, and that they have made the Patient aware that de-identified Patient data may be used and shared with such third parties, for purposes which include contacting their medical professional directly in connection with the Program. In addition to the above, I attest that I am the ordering physician, or I am authorized by the ordering physician to order this test, or I am authorized under applicable state law to order this test.

Medical professional signature (required)	Date
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