Expanded Carrier Screen Panel includes:

- Adrenoleukodystrophy, X-Linked (ALD-Related)
- Alpha-Thalassemia 2 (HbH Disease)
- Apert Syndrome (CALM1-Related)
- Arteriovenous Malformation
- Autosomal Dominant Polycystic Kidney Disease
- Cystic Fibrosis
- Ehlers-Danlos Syndrome, Type IV
- Fanconi Anemia, Group C
- Familial Mediterranean Fever
- Friedreich Ataxia
- Metachromatic Leukodystrophy
- Myotonic Dystrophy Type 1
- Niemann-Pick Disease A/B (SMPD1-Related)
- Oculopharyngeal Dystrophy
- Primary Aplastic Anemia
- Primary Myotonia
- Spinal Muscular Atrophy (includes Enhanced SMA Testing)
- Tay-Sachs Disease
- Usher Syndrome, Type IB
- X-Linked Juvenile Retinoschisis
- X-Linked Mental Retardation, X-Linked Dominant Type 3

KEY FOR SMALLER PANELS

- Standard ▶
- High-Frequency ▶
- Comprehensive Jewish ▶
- Ashkenazi Jewish Disorders ▶
- Sephardic/Mizrachi Jewish Disorders ▶

mv 1218
Informed Consent for Genetic Testing

I, ____________________________________________, hereby request genetic testing, which may include molecular,
cytogenetic and/or biochemical analyses, for
☐ Myself
☐ My child

I have received verbal and written information (please see sema4.com/testcatalog for test-specific information sheet) from my physician or from a genetic
counselor that described, in words that I understood, the nature of the genetic testing that I/my child am about to undergo.

I understand that specimen(s), such as a peripheral blood, saliva, cheek swab, dried blood spot, skin biopsy, amniotic fluid, chorionic villi and/or urine sample,
will be taken from me/my child. I understand that the samples will be used for determining if I/my child have a genetic disease, are carriers of a genetic
disease, or are more likely to develop a genetic disease or condition.

The nature of the genetic test, ____________________________________________, has been explained to me and the accuracy of the test and its risks
and limitations have been detailed. I understand that infrequent errors may occur, even though the likelihood of an incorrect diagnosis or a misinterpretation of
the result is extremely small. The likelihood of this occurring has been estimated to be less than 1%. I understand that a negative result reduces, but does not
eliminate, the possibility that I/my child carry a mutation(s) in the gene(s) analyzed or in other gene(s) that are not included in the test.

I understand that no test will be performed on my sample other than the one(s) authorized by this consent and my doctor.

De-identified research
Sema4 may also give the de-identified information to its research partners and may submit this de-identified information to research databases for use in
scientific and medical research, including scientific databases that are maintained by the federal government, such as a database kept by the National Institutes
of Health ("NIH") (an agency of the federal government that funds research). Researchers have to apply to the NIH to see the information in the database. Any
information that could directly identify you (such your name or address) will not be provided to a scientific database.

If I prefer not to have any of my/my child's de-identified health information used in research consistent with this consent, I may initial here ____________ or request this
by contacting Sema4, including by emailing privacy@sema4.com.

Permission to contact
I understand that Sema4 may wish to contact me/my child in the future, including for the following reasons: research purposes, the provision of general
information about research findings, and/or the provision of information about the results of tests on my/my child's sample(s). I understand that I may notify
Sema4 to opt out of such future contact, including by emailing privacy@sema4.com.

I understand that this testing may yield results that are of unknown clinical significance and that parental or other relative's specimens may also be tested to
determine whether a specific finding was inherited. In addition, incidental findings that are not related to the primary diagnosis may be identified in me/my child.

An error in the diagnosis may occur if the true biological relationships of the family members involved are not as I have stated and this test may detect non-
paternity.

The results of my/my child's test will be explained to me by a genetic counselor or by my physician who will have the opportunity to discuss my results with a
geneticist. I have had the opportunity to have all of my questions answered. If I am signing this form on behalf of a minor for whom I am the legal guardian, I am
satisfied that I have received enough information to sign on his or her behalf.

I understand that this consent is being obtained in order to protect my right to have all of my questions answered before testing. I understand that the results of
this testing will become part of my medical record and may only be disclosed to individuals who have legal access to this record or to individuals who I designate
to receive this information.

Sample storage
By initialing here, I agree that Sema4 may store, de-identify, and use my/my child's sample and information to support medical and academic
research relating to health, disease prevention, drug development, and other scientific purposes, and that I/my child will receive no compensation
in connection with such research. If I do not initial here, my/my child's sample will be destroyed at the end of the testing process or not more than
60 days after collection. I understand that I may withdraw this consent by contacting Sema4 (including by emailing privacy@sema4.com).

_________________________________________  ____________________________________________
Signature of person being tested (or guardian)  Date

Rev.10/4/2018