



## FOCUS PANELS

Six individual panels for highly frequent and severe genetic diseases.

<p><b>Alpha Thalassemia, HBA1, HBA2</b></p> <p>Carrier Frequency: 1 in 25 General Population</p> <ul style="list-style-type: none"> <li>• Early onset</li> <li>• Interventions &amp; Therapy</li> <li>• Life quality</li> <li>• Life-threatening</li> </ul> <p>Detection Rate: &gt;90% of affected cases</p>	<p><b>B-Haemoglobinopathies, HBB</b></p>	
<p><b>Cystic Fibrosis, CFTR</b></p> <p>Carrier Frequency: 1 in 20 European 1 in 45 General Population</p> <ul style="list-style-type: none"> <li>• Early onset</li> <li>• Interventions &amp; Therapy</li> <li>• Life quality</li> <li>• Life-threatening</li> <li>• Multi-organ</li> <li>• Progressive</li> </ul> <p>Detection Rate: &gt;75% of affected cases</p>	<p><b>B-Thalassemia</b></p> <p>Carrier Frequency: 1 in 28 Mediterranean</p> <ul style="list-style-type: none"> <li>• Early onset</li> <li>• Interventions &amp; Therapy</li> <li>• Life quality</li> <li>• Life-threatening</li> </ul> <p>Detection Rate: &gt;95% of affected cases</p>	<p><b>Sickle-Cell Disease</b></p> <p>Birth prevalence: 112 per 100,000 Globally</p> <ul style="list-style-type: none"> <li>• Early onset</li> <li>• Interventions &amp; Therapy</li> <li>• Life quality</li> <li>• Life-threatening</li> <li>• Multi-organ</li> </ul> <p>Detection Rate: &gt;95% of affected cases</p>
<p><b>Spinal Muscular Atrophy, SMN1, SMN2</b></p> <p>Carrier Frequency: 1 in 35 Caucasian 1 in 41 Ashkenazi Jewish</p> <ul style="list-style-type: none"> <li>• Early Onset</li> <li>• Failure to thrive</li> <li>• Interventions &amp; Therapy</li> </ul>	<p><b>Duchenne Muscular Dystrophy, X-linked, DMD</b></p> <p>Carrier Frequency: &lt;1 in 500 General Population</p> <ul style="list-style-type: none"> <li>• Early onset</li> <li>• Interventions &amp; Therapy</li> <li>• Life quality</li> <li>• Life-threatening</li> <li>• Motor development</li> <li>• Progressive</li> <li>• Reduced lifespan</li> </ul> <p>Detection Rate: &gt;75% of affected cases</p>	<p><b>Fragile X Syndrome, X-Linked, FMR1</b></p> <p>Carrier Frequency: 1 in 102 Ashkenazi Jewish 1 in 201 General Population</p> <ul style="list-style-type: none"> <li>• Early onset</li> <li>• Cognitive &amp; Developmental</li> <li>• Interventions &amp; Therapy</li> <li>• Motor development</li> </ul> <p>Detection Rate: &gt;99% of affected cases</p>
<ul style="list-style-type: none"> <li>• Life quality</li> <li>• Life-threatening</li> <li>• Motor development</li> </ul>	<ul style="list-style-type: none"> <li>• Progressive</li> <li>• Reduced lifespan</li> </ul>	<p>Detection Rate: &gt;75% of affected cases</p>

### DISEASE CHARACTERISTICS

<b>Cognitive &amp; Developmental</b>	Varying degrees of reduced intellectual ability, or developmental delays
<b>Early onset</b>	Symptoms originate from birth, in infancy or childhood
<b>Interventions &amp; Therapy</b>	Medical, physical or supportive therapies are necessary and available to support or improve quality of life
<b>Life quality</b>	Impact on quality of life
<b>Life-threatening</b>	Disease can be fatal
<b>Failure to thrive</b>	Difficulty eating, swallowing resulting in poor growth
<b>Motor development</b>	Reduced ability to move, delayed development of movement or muscle weakness
<b>Multi-organ</b>	Disease affects multiple organs
<b>Progressive</b>	Symptoms become worse over the years
<b>Reduced lifespan</b>	Decreased life expectancy

The above diseases are also included in the **Adventia Core Panel** and **Comprehensive Panel**, which screen for all coding regions on the genes of interest, offering increased detection rates. *Exceptions include Alpha-Thalassemia, Spinal Muscular Atrophy and Fragile X Syndrome, which have the same detection rates in all panels offered.*