Genomic Unity™ Test
A WGS test for diagnosis of rare genetic disorders
The diagnostic odyssey for unexplained genetic disorders is a frustrating and costly process for patients and their families. Unnecessary delays in identifying the molecular cause of the symptoms result in potentially missed opportunities for changes in treatment for the patient as well as missed screening opportunities for family members.

Genomic Unity™ test provides fast, accurate diagnosis at a lower overall cost than traditional tests, bringing an end to the diagnostic odyssey.

Now is the right time to switch to whole genome testing

Whole genome sequencing (WGS) is no longer for research use only. Clinical grade WGS is available today. And when analyzed and interpreted by the right lab, it provides important benefits over other NGS tests including whole exome sequencing.

Better coverage of exonic variants
Because the entire genome is sequenced without relying on PCR amplification, WGS provides a consistent read depth. This dramatically reduces the number of low coverage areas that can lead to missed exonic variant calls in other types of testing.

Detection of additional variant types
WGS's consistent read depth makes it possible to detect small sequence changes, structural variants, tandem repeat expansions and mitochondrial variants all within a single assay. Including known disease-causing variants in non-coding regions.

Ability to rerun analyses, without resequencing
Because the DNA regions of interest are not predetermined, WGS data can be stored and reanalyzed at any time. Without collecting another sample, performing another sequencing run or undertaking another genetic test.

Isn't WGS generate a lot of noise? What about the intronic variants?

While it’s true that WGS identifies many thousands more variants than exome sequencing does, this is addressed by limiting analysis to only those variants that have a characterized disease association or have a high likelihood of disrupting protein function. This means that the few intronic or non-coding variants that are known to be disease causing are identified while the vast majority with no known biological function are screened out.
The most comprehensive variant detection available

Genomic Unity™ detects

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<tr>
<th></th>
<th>✓</th>
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<tbody>
<tr>
<td>SNVs</td>
<td>✓</td>
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<tr>
<td>Small indels (&lt;50bp)</td>
<td>✓</td>
</tr>
<tr>
<td>Structural variants (≥ 50bp)</td>
<td>✓</td>
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<tr>
<td>Deletions</td>
<td>✓</td>
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<tr>
<td>Duplications</td>
<td>✓</td>
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<td>Inversions</td>
<td>✓</td>
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<tr>
<td>Breakpoints</td>
<td>✓</td>
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<tr>
<td>Mitochondrial variants (≥ 4% hereroplasmy)</td>
<td>✓</td>
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<tr>
<td>Tandem repeat expansions</td>
<td>✓</td>
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Visit our online resources to take a deeper dive into the data

www.variantyx.com/unity-data

Performance statistics
- How we detect structural variants
- How we detect repeat expansions
- Repeat expansions screened

Full commitment to support you and your patients

We make the genetic testing process as easy as possible

Flexible Billing
We accept insurance, institutional, and direct patient pay, performing all benefits investigation in-house

Fast turnaround
Receive a clinical report signed by our board-certified clinical geneticists within ~8 weeks of sample receipt

Timely support
Our clinical coordinators and geneticists are always available to answer your questions and facilitate testing
Genomic Unity™ test is now reimbursable by many major insurance providers