

Fabric GEM™

AI-driven tool for fast diagnosis of rare genetic diseases

Benefits of Fabric GEM

Fabric GEM is the fastest, most accurate interpretation solution available. Fabric GEM uniquely goes beyond filtering and ranking to provide a complete decision support platform. Fabric GEM's unprecedented accuracy gives you the speed you need to scale NGS testing.



Accurate

Our most accurate genomics interpretation platform yet, GEM ranks the causal variant and condition at the top



Fast

With automated interpretation of a multi-dimensional analysis of all variants - review and sign in minutes



Scalable

Confidently scale testing volume with accelerated diagnostics and data transparency

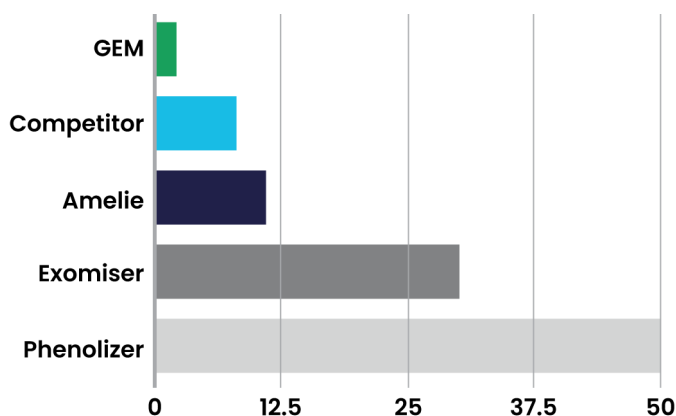
More needles. Less haystack.

Fabric GEM uses advanced artificial intelligence (AI) to provide a fully automated provisional diagnosis, prioritizing and identifying the most likely disease-causing variant after analyzing all variants against the most comprehensive data sets. GEM analyzes the genetic variants – including complex structural variants, a patient’s symptoms and clinical information, and probabilistic disease condition matching – and its algorithms nominate a handful of likely diagnoses automatically from raw sequence data. By prioritizing diagnoses, the Fabric algorithms allow the clinical team to concentrate on the most likely possibilities, slashing the time to diagnosis from days to minutes.

Reduce clinical review time by >90%

In recent validation studies at Rady Children’s Institute for Genomic Medicine, **Fabric GEM ranked the causal gene in the top 1 or 2 in 90% of cases, the top 5 in 98% of cases and the top 10 in 100% of cases.** When other AI and interpretation solutions report ranking in the top 20 to 50 candidates, Fabric AI consistently reduces clinical review time. Fabric GEM was further validated in 5 of the leading genomic institutes in the world.

Number of genes to achieve 90% diagnosis rate



GEM beats other solutions in speeding up interpretation by reducing review to an average of just 2 genes per case*

*For single proband cases. No SVs.



Diverse use cases

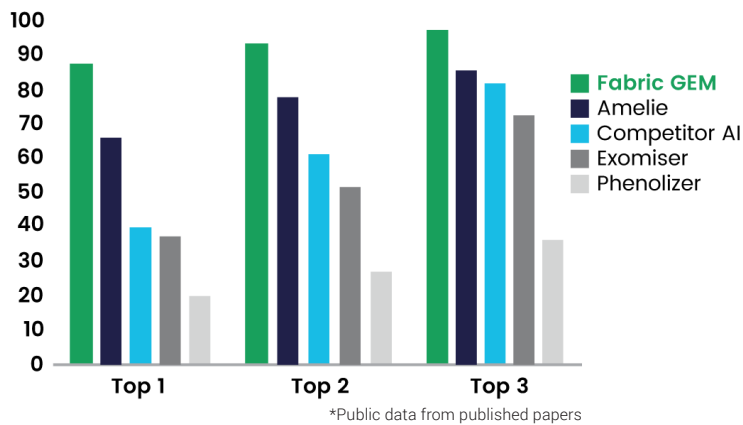
Fabric GEM has been validated in multiple clinical settings, demonstrating broad utility for WES & WGS testing

- **Rare & undiagnosed diseases**
- **Ultra-rapid NICU & PICU cases**
- **Re-analysis of negative cases**
- **Solos and nuclear families**

Identify disease-causing genes, fast

Fabric GEM AI platform leverages genomic, phenotypic and clinical data combined with diverse clinical resources such as OMIM, gnomAD, ClinVar, and many others. Leveraging vast compute power, multiple algorithms, and diverse databases, the full genome is assessed, and all variants ranked with the provisional diagnosis at the top. Full transparency and logic are available for the clinician’s review. The result is that Fabric GEM enables labs to achieve near-instant identification of disease-causing genes in rare genetic disease diagnosis and with the speed needed for NICU cases. Fabric GEM has been validated by multiple partner datasets and will reduce the industry-standard turnaround time (TAT) by a factor of 10-100x while improving diagnostic rates.

Percentage of causal variants ranked in the top 3 positions



High diagnostic yield - GEM outperforms other methods to prioritize disease variants in top 1-5 rank, speeding up review

About Fabric Genomics

Fabric Genomics is making AI-driven genomics and precision medicine a reality. Fabric’s clinical-decision support software platform Fabric Enterprise incorporates proven AI algorithms to enable clinical labs, hospital systems and country-sequencing programs to gain actionable genomic insights, resulting in faster and more accurate diagnoses in areas of both hereditary disease and oncology.

Learn more at

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