

# Elimu Informatics Leads the Way with Genomics-EHR Integration Using FHIR Genomics Operations

*This publication underscores Elimu's long commitment to research and innovation in precision medicine and clinical decision support.*

EL, CERRITO, CA, UNITED STATES, October 9, 2024 /EINPresswire.com/ -- Elimu Informatics is proud to share our contributions to a pivotal article updating the genomics community about the evolving landscape of interoperable clinical decision support for Precision Medicine. The article, titled "[Genomics Clinical Decision Support with Fast Healthcare Interoperability Resources Genomics Operations](#)," highlights critical advances in how genomics data and clinical decision support can be managed and integrated within Electronic Health Records (EHRs).



Clinicians face many challenges in the current environment because genomic testing results are often delivered as static PDF reports with free text genomic information that limits real-time decision support. In response to these challenges, the co-authors emphasize the importance of Fast Healthcare Interoperability Resources (FHIR) Genomics Operations, a standard developed by HL7 to encapsulate genomic data complexity, enabling dynamic variant annotation and supporting advanced clinical decision support (CDS) systems. This approach will vastly simplify the development of new clinical decision support applications for key domains in precision medicine such as tumor board solutions leveraging molecular data, pharmacogenomic decision support, and clinical trial matching.

Key Insights from the Article Include:

- Evolving Regulatory Environment: Clinical decision support in genomics is advancing within a landscape of regulatory uncertainty.
- FHIR Genomics Operations Encapsulate Data Complexity: These operations manage intricate genomic data, including variant normalization and dynamic variant annotation, making real-time

decision support based on current knowledge possible.

- Advanced Decision Support: FHIR Genomics Operations enable a more comprehensive clinical decision support system that leverages a patient's entire genomic dataset.

### Genomics-EHR Integration Challenges

- Genomic testing results are often integrated into EHRs through PDF reports, which are not ideal for advanced clinical decision support. These reports offer only a point-in-time snapshot of key variants, limiting their utility when variant knowledge is constantly evolving and real-time data interpretation is essential.

### FHIR Genomics: A Game-Changer for Precision Medicine

- The HL7 FHIR Genomics standard is recognized as a breakthrough in enabling the structured communication of genomic data, including both simple and complex variants, germline and somatic variants, pharmacogenomic findings, and more. This standard empowers advanced clinical applications like those used in precision cancer care, clinical trials referral and rare disease discovery.

### Future Directions for FHIR Genomics Operations

- As the article notes, FHIR Genomics Operations are relatively new, and Elimu Informatics is participating in ongoing pilots that will help refine the standard further. Several of these pilots are being conducted under the GenomeX "[HL7 FHIR Accelerator Program](#)," designed to promote the global adoption of FHIR standards.

The authors describe how FHIR Genomics Operations encapsulate the complexity of genomic data, enable dynamic variant annotation, and offer a robust approach to advancing clinical decision support by leveraging a person's entire genomic profile. With the growing adoption of FHIR and its integration into EHR systems, FHIR Genomics Operations are poised to drive next-generation precision care.

Elimu Informatics is excited to be at the forefront of these groundbreaking developments in healthcare technology. This publication underscores Elimu's [long commitment to research and innovation in precision medicine](#) and clinical decision support.

### About Elimu Informatics:

Elimu Informatics is a recognized leader in clinical decision support, data quality optimization, and interoperability solutions. Our suite of solutions empowers healthcare providers with the tools they need to enhance care quality, drive research, and streamline operations. Through innovations such as the FHIR Genomics standard, we continue to lead the industry in advancing precision medicine. To learn more about what Elimu Informatics can do for you, visit:

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