

Clinical **i**nformatics Grand Rounds

Webinar October 2nd, 2025

12 pm PT / 3 pm ET

“AI Agents Driving Precision Medicine in Colorectal Cancer Research”



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Abstract: Colorectal cancer (CRC) disproportionately affects underserved populations and remains a leading cause of cancer-related mortality worldwide. Precision medicine approaches hold promise for improving outcomes, yet integrating the vast complexity of clinical, genomic, spatial multi-omics, and social determinants of health (SDoH) data into actionable insights remains a major challenge.

This presentation introduces a new generation of artificial intelligence (AI) conversational agents designed to bridge this gap by enabling real-time, user-friendly exploration of multi-modal cancer data. Developed within the Velazquez-Villarreal Lab at City of Hope Comprehensive Cancer Center, these AI agents leverage natural language processing, high-performance computing, and advanced machine learning to support case-control bioinformatics, clinical-genomic integration, and equity-focused oncology research. Applications include the characterization of CRC disparities, identification of actionable molecular alterations, and integration of SDoH to inform individualized treatment strategies.

> [Events Calendar with Zoom Links](#) <

Clinical **i**nformatics Grand Rounds



Cancer Clinical Informatics Grand Rounds (CiGR): Serves as a platform for knowledge exchange, fostering collaboration, and advancing the use of clinical informatics to improve cancer care, elevate patient outcomes, and support translational research and biomarker discovery. The goal is to highlight applied informatics practices, tools, and methodologies that benefit cancer patients, offering a space for in-depth discussions on key topics in the field.

Scope: The Cancer Clinical Informatics Grand Rounds Series, held monthly on the first Thursday, focuses on the intersection of clinical informatics and cancer care. This series covers a wide range of topics in Artificial Intelligence, Data Science, Technology, and Clinical Applications specifically tailored to oncology. It provides a dedicated forum for discussing advancements, challenges, and innovative informatics and data science strategies essential for enhancing cancer research, diagnosis, treatment, and, ultimately, patient outcomes.



>> **CiGR Monthly Webinar Schedule** <<