



GENOME INSTITUTE

at Washington University

Washington
University in St. Louis
School of Medicine

PMBIO Module 07

Clinical. Clinical Applications

Malachi Griffith, Obi Griffith, Zachary Skidmore, Huiming Xia Introduction to bioinformatics for DNA and RNA sequence analysis (IBDR01) 29 October - 2 November, 2018

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Learning objectives of module 07: Clinical

- **Key concepts:** Clinical interpretation of variants, variant interpretation types (predisposing, predictive, predisposing, diagnostic), variant interpretation guidelines, clinical applications of passenger somatic variants (early detection, minimal residual disease tracking, personalized vaccines).
- Prioritize germline variants to identify putative de novo and clinically relevant mutations
- Germline pathogenicity assessment (demonstrate concepts with some example variants using ClinGen Variant Curation Interface)
- Biological function or oncogenicity (demonstrate concepts by uploading a filtered VCF into CRAVAT)
- Somatic clinical actionability (demonstrate concepts with some example variants using CIViC)