AVAILABLE TECHNOLOGY

University of South Australia | UniSA Ventures Pty Ltd

Variant Grid™/ Genetic variance visualisation

A graphical user interface that allows non-experts to filter, search and analyse a patient's genetic variants in a database.

Benefits

- Automation of genetic variance analysis and visualisation
- Simplified graphical user interface allows non-experts to investigate genetic variance of a given sample

Background

High throughput sequencing provides unprecedented power to detect genetic variation in applications such as inherited disorders and somatic mutations in cancer, but managing and filtering the enormous data sets remains a challenge.

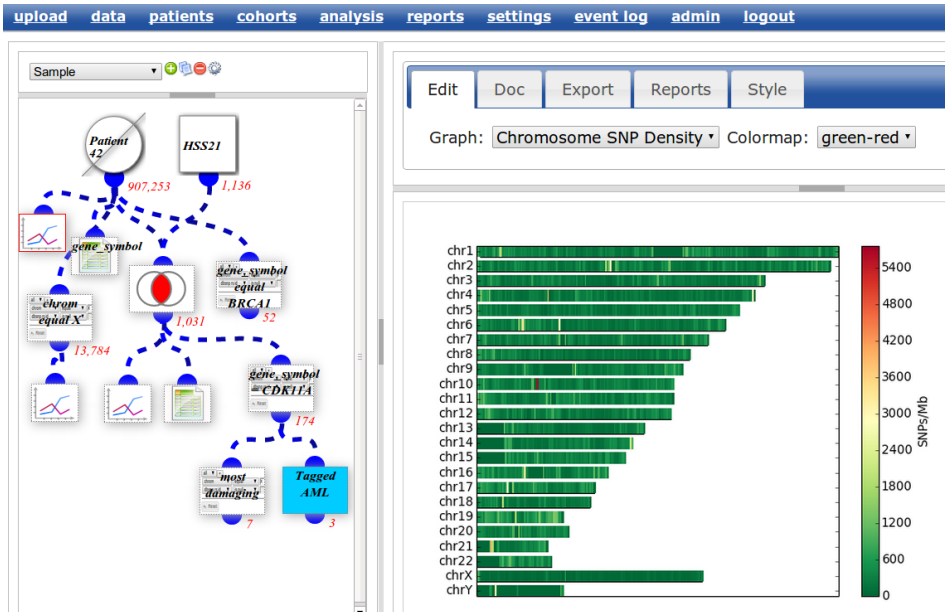
Existing software can annotate variants, predict effects and remove false positives, but ultimately an individual may need to sort through many hundreds of thousands of potential candidates, using expert knowledge of relevant pathways and phenotypes.

Clinicians and researchers often do not know how to program, and existing graphical interfaces do not scale to exome sized data sets. A graphical front end that allows creation of sophisticated custom filters on these large data sets could thus leverage expert knowledge to gain more from exome scale sequencing.

Technology

Variant Grid™ stores variant and genotype information in a relational database, with a graphical web front end to display and filter this data.

A drag and drop interface allows a user to connect together nodes that represent filtering operations which are applied to the variants. This allows rapid creation of custom filters and analysis, encourages experimentation and provides a visual summary of operations applied.



Variant Grid™'s node graph user interface improves on existing solutions by allowing the construction of sophisticated filters over larger data sets.

Potential Markets

- Genetic testing facilities
- Medical service providers needing to analyse high throughput sequencing data
- Medical scientists, genetic counsellors, oncologists, etc.

Partnering Opportunities

UniSA Ventures is currently seeking development partners or licensing opportunities for the technology.

Current product subscription available.

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