

# Case Study: Educational Institution and Ingenuity Variant Analysis

## Introduction

This case study of a educational institution is based on a March 2013 survey of Ingenuity Systems customers by TechValidate, a 3rd-party research service. The profiled organization asked to have their name blinded to protect their confidentiality.



“Ingenuity Variant Analysis has massively reduced the time it takes to filter variants for prioritization. I can do any type of filtering I like while using the same computational protocol in an intuitive, user friendly interface.”

## Challenges

- Solved the following challenges by deploying Ingenuity Variant Analysis:
  - Realized faster and easier identification of causal variants
  - Reduced IT infrastructure costs
  - Improved access to biological content including primary sources
  - Improved sharing and collaboration capabilities
  - Reduced the need for developing own informatics pipeline
  - Eliminated the need for creating and maintaining own up-to-date database of biomedical literature
  - Enabled independent study without the need for specialized bioinformatics skills
  - Enabled support for more studies by providing a self-service tool for colleagues and collaborators
- Purchased Ingenuity Variant Analysis for the following reasons:
  - Access rich biological content in Ingenuity Knowledge Base plus additional sources of variant level content
  - Reduce time to identify variants worth following up on
  - Identify high impact, most compelling variants to follow up on
  - Access user friendly interface and no bioinformatics experience needed
  - Secure web application that is HIPAA and Safe Harbor compliant
  - Scale from small to large studies
  - Collaborate and share easily with colleagues and peers

## Use Case

- Uses the following applications with Ingenuity Variant Analysis:
  - DNA sequencing – Whole Genome
  - DNA sequencing – Whole Exome
- Sequencing data is from the following platforms:
  - Illumina Genome Analyzer (GA) / HiSeq
  - Complete Genomics

## Results

- Chose Ingenuity Systems over the following solutions:
  - In-house developed software
- Saves > 3 days per sample using Ingenuity Variant Analysis for DNA variant annotation and analysis.
- Reduced time to results by > 75% by using Ingenuity Variant Analysis for DNA variant annotation and analysis.
- Rated the following Ingenuity Variant Analysis capabilities in terms of how differentiated they are compared to other data analysis solutions:
  - Speed: 5 (strongly differentiated)
  - Accurate evidence: 3 (differentiated)
  - Accessibility/ ease of use: 5 (strongly differentiated)
  - Sharing with colleagues/peers: 5 (strongly differentiated)
- Is extremely satisfied with the ease of use of Ingenuity Variant Analysis.

### Organization Profile

The organization featured in this case study asked to have its name publicly blinded because publicly endorsing vendors is against their policies.

TechValidate stands behind the authenticity of this data.

Industry:  
**Educational Institution**

### About Ingenuity Systems

QIAGEN offers industry-leading applications for the analysis, interpretation, and reporting of biological data.

Understanding raw data is one of the most significant challenges in modern molecular methods. Data must be examined within the context of complex biological processes, and rapidly increasing throughput makes analyses time and labor intensive. QIAGEN's portfolio of powerful tools addresses this bottleneck with innovative applications based on cutting-edge bioinformatics.

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