

Case Study: ARUP Laboratories and Ingenuity Variant Analysis

Introduction

This case study of ARUP Laboratories is based on a March 2013 survey of Ingenuity Systems customers by TechValidate, a 3rd-party research service.

“[Ingenuity Variant Analysis] provides easy access to excellent gene variant interpretation, especially for those without a bioinformatics background. It has also greatly reduced the time from variant call to seeing “final” results.”

Challenges

- Solved the following challenges by deploying Ingenuity Variant Analysis:
 - Realized faster and easier identification of causal variants
 - Improved access to biological content including primary sources
 - Reduced the need for developing own informatics pipeline
 - Eliminated the need for creating and maintaining own up-to-date database of biomedical literature
- Purchased Ingenuity Variant Analysis for the following reasons:
 - Access rich biological content in Ingenuity Knowledge Base plus additional sources of variant level content
 - Increase trust in the insights received from experiment
 - Access user friendly interface and no bioinformatics experience needed
 - 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
 - DNA sequencing – Targeted / Gene Panel
- Sequencing data is from the following platforms:
 - Illumina MiSeq
 - Illumina Genome Analyzer (GA) / HiSeq
 - Ion Torrent PGM
 - Complete Genomics

Results

- Chose Ingenuity Systems over the following solutions:
 - ANNOVAR
 - Cartagenia
 - Knome
 - VAAST / Omicia
 - In-house developed software
- Saves 1 to 3 days per sample using Ingenuity Variant Analysis for DNA variant annotation and analysis.
- Reduced time to results by 10 to 49% 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: 4 (very differentiated)
 - Accessibility/ ease of use: 4 (very differentiated)
 - Sharing with colleagues/peers: 5 (strongly differentiated)
- Is very satisfied with the ease of use of Ingenuity Variant Analysis.

Company Profile

Company:
ARUP Laboratories

Company Size:
Large Enterprise

Industry:
Health Care

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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