Leveraging the precisionFDA bioinformatics platform to support developers

Alexis Norris, PhD
Division of Animal Bioengineering and Cellular Therapies
Center for Veterinary Medicine

Co-authors: Carlo Mercado, PhD; Heather Lombardi, PhD; and Adam Moyer, PhD

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Introduction

CVM’s Veterinary Innovation Program (VIP)

• Products:
  – Intentional genomic alterations (IGAs) in animals
  – Animal cells, tissues, and cell- or tissue-based products

• Benefits:
  1. Intensive review team, senior management, and developer interaction
  2. Hands-on assistance
  3. Review process benefits

• Aim: use precisionFDA to provide next generation sequencing (NGS) data analysis assistance to developers of IGA products, to:
  1. Confirm intended genomic alteration(s)
  2. Screen for unintended genomic alterations

Introduction

CVM’s Veterinary Innovation Program (VIP)
Results

- FastQC
- Trimmomatic
- BWA-MEM
- Freebayes
- SnpSift & SnpEff

Input Files:
- R1.fastq
- R2.fastq
- ref.fasta
Animal biotechnology developers can now leverage our suite of Apps through precisionFDA Review Spaces to increase the quality and speed of NGS submissions.

preCISIONFDA “Review Space”
1. Private area for reviewer(s)
2. Private area for developer
3. Shared area enables secure sharing and analysis of data, as well as ensuring data provenance
Thank you!

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