



CUSTOMER STORY TGEN

TGen uses genome sequencing to inform individualized medical treatments.

Industry

- > Healthcare

Challenge

- > Using the unique genetic fingerprint found in a patient's genome to individualize treatment

Products Used

- > NVIDIA Clara Parabricks Pipelines
- > NVIDIA V100 Tensor Core GPUs

Goals

- > 6X speedup in genomic sequence analysis
- > Same-day results



LEARN MORE

developer.nvidia.com/clara-parabricks
www.tgen.org

FASTER GENOME ANALYSIS LEADS TO QUICKER DIAGNOSES AND BETTER TREATMENT OUTCOMES

"Running Parabricks on NVIDIA GPUs significantly speeds up sequence analysis."

- **Glen Otero**, Ph.D., Vice President of Scientific Computing,
Translational Genomics Research Institute

Giving Hope to Children and Their Families

All humans are unique at the genomic level, so understanding individual patients at the molecular level is an important step toward determining how they'll respond to treatment options.

The Center for Rare Childhood Disorders (C4RCD) at the Translational Genomics Research Institute (TGen) converts research discoveries into treatments for children with rare neurological disorders. The institute is investigating the unique genetic fingerprints found in a patient's genome. The resulting genetic profile then informs the treatment decision.

NVIDIA Solution

TGen is using NVIDIA® V100 Tensor Core GPUs and NVIDIA Clara Parabricks Pipelines to power a highly integrated high performance computing (HPC) infrastructure that delivers sequence analysis results to collaborative teams of researchers and physicians. The system accelerates whole genome sequencing analysis of healthy, as well as diseased cells, which helps determine the most effective therapy for each patient.

TGen Goal

Faster genome sequencing and analysis can result in a shorter time to individualized treatment. Because of this, TGen's goal is to reduce the time for a patient's genome sequence analysis as much as possible using Clara Parabricks Pipelines. With Clara Parabricks Pipelines, TGen can move faster, accelerating diagnoses, and improving treatment outcomes.