

# Icahn School of Medicine at Mount Sinai Technology Development Team

*PacBio UGM; Service Provider Forum  
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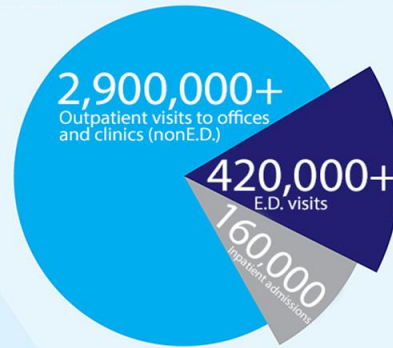
**Mount  
Sinai**



# Mount Sinai Health System

PATIENTS SERVED: 3.5 MILLION

One of the largest integrated health care systems in the nation



37,000+ EMPLOYEES

Providing medical care to local and global communities

BABIES DELIVERED A YEAR

18,000+ 48/DAY

6,100+ PRIMARY AND SPECIALTY CARE PHYSICIANS

31 Affiliations with community health center locations

3,535 138

TOTAL CERTIFIED BEDS

OPERATING ROOMS\*

6,000+ NURSES

41 Clinical and academic relationships with other local health care organizations

\*There are 47 additional specialty ORs for endoscopy, electrophysiology, interventional radiology, catheterization laboratory, labor and delivery

140+ Ambulatory practice locations throughout 5 boroughs of New York City, Westchester, and Long Island

# Our Technology Development team & capabilities

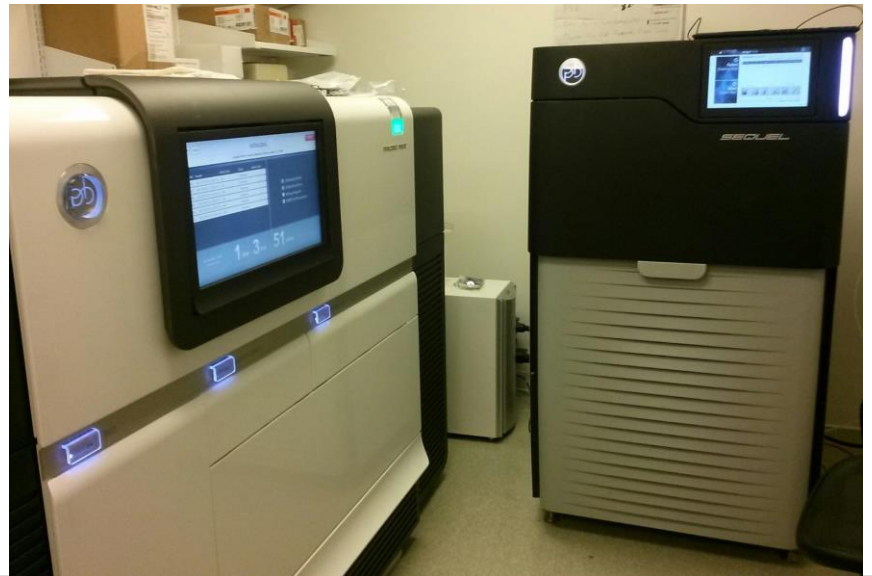
*Mission: To enable investigators to perform translational and interdisciplinary biomedical research using cutting edge genomics tools*

## Multi-Platform DNA Sequencing:

- 3 PacBio RS IIs
- 2 PacBio Sequels
- 8 Illumina HiSeq 2500/4000
- 2 MiSeq
- 8 Ion Protons
- 7 Ion S5XL
- 2 Ion PGM
- 11 Ion Chefs
- 1 10X Genomics Chromium
- 1 BioNano Genomics Irys
- 1 Applied Biosystems 3730xl
- ONT MinION

## Single Cell Technology:

- 1 10X Genomics Chromium
- 1 BLI Beacon
- 1 BioRad/Illumina ddSeq

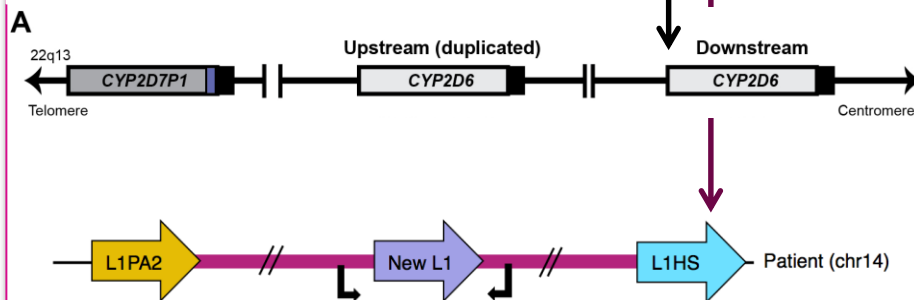
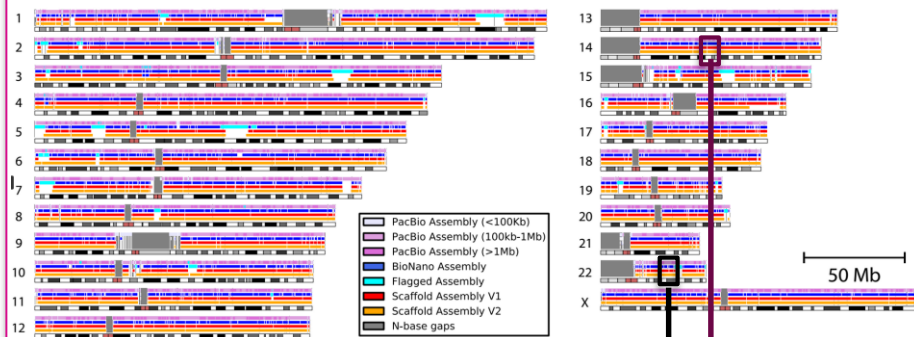


# Using long read sequencing as a translational research tool

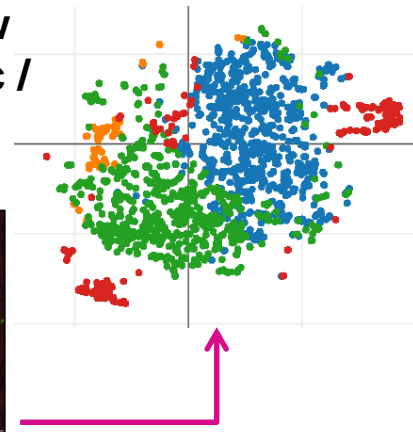
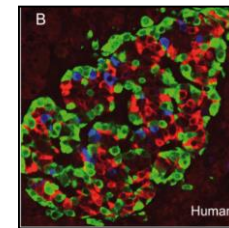
## Technology Toolbox and Expertise:

- 2 Sequel & 3 RS II sequencing systems with 3000+ samples run in 2016
- 10X Chromium, BioRad/ILMN ddSeq and BLI Beacon for unique single cell genomics
- BioNano Genomics optical mapping and scaffold generation expertise
- Novel data integration, spanning all technologies to inform R&D and novel diagnostics

## Addressing complex structure & targeting comprehensive diagnostics



## Rapid validation of low freq variants in somatic / heterogeneous tissue



## Infectious Disease & Immune Repertoire Profiling and Surveillance

