Genetic Sequencer

Description
Illumina NextSeq 500 **(More details)**

Location
Rm510B, Biotech Centre 1

Features
- Desktop next-generation sequencing (NGS) system capable of sequencing a whole human genome at high coverage (30×) in one run and delivers one-day turnaround for a number of popular sequencing applications.
- Leverage the latest evolution of Illumina's sequencing by synthesis (SBS) technology, two-channel SBS, enabling a breakthrough reduction in data generation times
- Exceptionally high quality score distributions: >75% of bases with Q scores >30 (2 x 150 bp)

Flexibility and Scalability
- Two flow cell configurations (High and Mid) offers tunable read lengths and output options
- Easily shift from low to higher throughput processing with each sequencing run
- Read-length is fully adjustable up to 2 x 150 bp

Flow cell configuration	Expected output using 2x150 bp with dual-surface scanning
High Output	Up to 120 Gb (Up to 400M single reads / 800M paired-end read)
Mid Output	Up to 39 Gb (Up to 130M single reads / 260 paired-end read)

Easy and simple integrated workflow
- Does not require emulsion PCR
- No need for dedicated ancillary amplification system
- Single instrument performs clonal amplification, sequencing, paired-end turn
- Alignment, variant calling and reporting are supported in **BaseSpace Onsite**

Short hands-on and sequencing time
- 10 minutes hands-on time for run setup (amplification, paired-end sequencing)
- As fast as 12-hour sequencing time including cluster generation, sequencing run and base calling with quality scores

Applications
- Whole-genome sequencing
- Targeted resequencing
- Exome sequencing
- Transcriptome sequencing

Contact
bsc@hkstp.org