Resource Summary Report

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Penn High-Throughput Sequencing Facility

RRID:SCR_010015
Type: Tool

Proper Citation

Penn High-Throughput Sequencing Facility (RRID:SCR_010015)

Resource Information

URL: http://eagle-i.itmat.upenn.edu/i/00000138-ba32-e90b-9cd7-d7e280000000

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Description: Core facility that provides the following services: Illumina sequencing service, 5500xl sequencing service. The recent boon in high-throughput sequencing technologies has offered enormous potential to applications in genome sequencing, transcriptome profiling, epigenetics, metagenomics, discovery of non-coding RNAs and protein binding sites. A primary mission of PGFI is to lead the development of new genomics technologies at the University of Pennsylvania. In response to the ever growing demand for high-throughput sequencing at Penn, PGFI?s HTS facility was established. In this facility, investigators have access to different types of HTS technology: Illumina?s HiSeq and Applied Biosystem?s SOLiD4 and 5500xl. With two HiSeqs, the facility can provide the latest innovation from Illumina featuring up to 3 billion paired-end reads (up to 100x100 bp reads) per flow cell, 8 lanes per flow cell and 2 flow cells per machine. With the SOLiD4, the facility can provide up to 1.4 billion reads per slide, 50 x 25 bp paired-end reads, up to 8 sectors per slide and 2 flow cells per machine. With the 5500xl, the facility can provide up to 180 Gb or more than 2.8 B reads per run. The 5500xl offers 75 bp fragment runs, 75x35 bp paired-end runs and up to 60 bp x 60 bp mate paired runs with the added bonus of pay-as-you-go sequencing. All platforms offer multiplexing capability. Currently Illumina offers 48 barcodes and Life Technologies offers 96 barcodes. The SOLiD 4 system provides greater than 99.94% accuracy due to 2-base encoding. The 5500xl offers up to 99.99% accuracy utilizing 2-base encoding and Exact Call Chemistry.

Resource Type: access service resource, core facility, service resource

Keywords: protein interaction detection, exome sequencing, next generation sequencing, dna sequencing, rna sequencing, mirna expression analysis, chip-seq assay, transcription profiling assay

Funding:

Resource Name: Penn High-Throughput Sequencing Facility

Resource ID: SCR_010015

Alternate IDs: nlx_156480

Record Creation Time: 20220129T080256+0000

Record Last Update: 20250412T055443+0000

Ratings and Alerts

No rating or validation information has been found for Penn High-Throughput Sequencing Facility.

No alerts have been found for Penn High-Throughput Sequencing Facility.

Data and Source Information

Source: SciCrunch Registry

Usage and Citation Metrics

We have not found any literature mentions for this resource.