

## UCLA Neuroscience Genomics Core

The UNGC currently occupies approximately 1500s sq/ft of dedicated laboratory space in the Gonda research facility on the UCLA campus. Installed capital equipment includes one HiSeq 4000 sequencer and access to two NovaSeq instruments, one cBot cluster station, one Illumina LIMS capable iScan confocal laser scanner with Autoloader II automatic loading support capable of scanning all Illumina beadchip formats. One Tecan Evo 150 robotic liquid handling platform with Illumina GTS and Infinium robot control software installed, one Tecan Evo 100 robotic liquid handling platform and two 48 place temperature controlled beadchip processing racks, one SciGene Little Dipper microchip processing robot, one Tomtec autosealer, one MJ Research tetrad 2 thermocycling system and four Eppendorf Nexus gradient PCR machines. Additional equipment includes one Covaris M220 nucleic acid shearing system, one Covaris E210 high throughput nucleic acid shearing platform one VisonMate SR 2D barcode plate scanner, one Agilent 4200 TapeStation, one Caplier Labchip XT nucleic acid size selection system, six programmable incubation ovens, six microplate heat blocks, two tabletop centrifuges, one Molecular Dynamics fluorescent microplate readers, one speedvac and four high capacity microplate shakers, 8 benchtop precision shakers and -20 and -80 freezer storage. Computer resources include ten networked workstations. The UNGC has 60TB of network storage space with RAID backup.

The UNGC is equipped to provide sequencing services, including library preparation and QC, using all current Illumina and compatible third party chemistries and kits on our HiSeq 4000 instrumentation.

The UNGC supports all versions of Illumina's whole genome and custom iSelect Infinium genotyping assays, including methylation analysis.

The UNGC currently operates an Illumina HiSeq 4000 sequencer and has access to NovaSeq instruments with the following options:

<b>NovaSeq SP</b>	<b>unit</b>	<b>Estimated reads (Million)</b>
SBS_(2021 Q1)_NovaSeq SP (XP) SR 1x100	Per lane	400
SBS_(2021 Q1)_NovaSeq SP (XP) PE 2x50	Per lane	400
SBS_(2021 Q1)_NovaSeq SP (XP) PE 2x150	Per lane	400
SBS_(2021 Q1)_NovaSeq SP (XP) PE 2x250	Per lane	400
SBS_(2021 Q1)_NovaSeq SP SR 1x100	Per Flowcell	800
SBS_(2021 Q1)_NovaSeq SP PE 2x50	Per Flowcell	800
SBS_(2021 Q1)_NovaSeq SP PE 2x150	Per Flowcell	800
SBS_(2021 Q1)_NovaSeq SP PE 2x250	Per Flowcell	800
<b>NovaSeq S1</b>		
SBS_(2021 Q1)_NovaSeq S1 (XP) SR 1x100	Per lane	800
SBS_(2021 Q1)_NovaSeq S1 (XP) PE 2x50	Per lane	800
SBS_(2021 Q1)_NovaSeq S1 (XP) PE 2x100	Per lane	800
SBS_(2021 Q1)_NovaSeq S1 (XP) PE 2x150	Per lane	800

SBS_(2021 Q1)_NovaSeq S1 SR 1x100	Per Flowcell	1600
SBS_(2021 Q1)_NovaSeq S1 PE 2x50	Per Flowcell	1600
SBS_(2021 Q1)_NovaSeq S1 PE 2x100	Per Flowcell	1600
SBS_(2021 Q1)_NovaSeq S1 PE 2x150	Per Flowcell	1600

#### **NovaSeq S2**

SBS_(2021 Q1)_NovaSeq S2 (XP) SR 1x100	Per lane	2000
SBS_(2021 Q1)_NovaSeq S2 (XP) PE 2x50	Per lane	2000
SBS_(2021 Q1)_NovaSeq S2 (XP) PE 2x100	Per lane	2000
SBS_(2021 Q1)_NovaSeq S2 (XP) PE 2x150	Per lane	2000
SBS_(2021 Q1)_NovaSeq S2 SR 1x100	Per Flowcell	4000
SBS_(2021 Q1)_NovaSeq S2 PE 2x50	Per Flowcell	4000
SBS_(2021 Q1)_NovaSeq S2 PE 2x100	Per Flowcell	4000
SBS_(2021 Q1)_NovaSeq S2 PE 2x150	Per Flowcell	4000

#### **NovaSeq S4**

SBS_(2021 Q1)_NovaSeq S4 (XP) PE 2x100	Per lane	2500
SBS_(2021 Q1)_NovaSeq S4 (XP) PE 2x150	Per lane	2500
SBS_(2021 Q1)_NovaSeq S4 PE 2x100	Per Flowcell	10,000
SBS_(2021 Q1)_NovaSeq S4 PE 2x150	Per Flowcell	10,000

#### **HiSeq4000**

SBS_(2021 Q1)_HiSeq 4000 SR1x65	per lane	300
SBS_(2021 Q1)_HiSeq 4000 PE 2x75	per lane	300
SBS_(2021 Q1)_HiSeq 4000 PE 2x150	per lane	300

The UNGC is directed by Dr. Nelson Freimer. The UNGC is committed to providing equivalent access to its members at all institutions.

New consortium members are always welcome, contact Nelson Freimer for details at [nfreimer@mednet.ucla.edu](mailto:nfreimer@mednet.ucla.edu) or 310-794-9571. Cost estimates and information regarding all core services may be obtained by contacting Joe DeYoung, the facility manager at: [jdeyoung@mednet.ucla.edu](mailto:jdeyoung@mednet.ucla.edu) or by phone at 310-825-2390.

Additional information can be found on our web site: <http://www.semel.ucla.edu/ungc>