**Computing Resources**: The Human Genetics Center (HGC) has a series of interconnected microcomputer resources. All key personnel have late model mobile computers and/or desktop workstations. Researches in HGC operate multiple high-performance multi-CPU Intel workstations with 8GB memory. Two 4-CPU Sun Enterprise 450 servers with 8GB memory, two 2-CPU Sunfire 280 servers and two 24-CPU Sun Enterprise 6800 server are dedicated and maintained for the Human Genetics Center faculty and staff. Additional UNIX resources include two V880, and 4-CPU Sun servers. Dr. Xiong’s lab has  a DELL PRECISION T5400 sever with 2-CPU and 16GB memory, two DELL OPTIPLEX workstations with multi-core CPU and 8GB memory.

The analyses of exceptionally large amounts of genomic data require sufficient storage space, memory, and numerous multi-core processors. Thus, HGC recently upgraded our computational capacity by creating a computer cluster of the following components: one large server (512Gb memory, 5Tb hard drive) for data storage, data sharing and light data analysis; seven traditional servers (24Gb memory, 1,000 Gb hard drive) for dedicated, computationally intensive analyses; two network storage servers (12 Tb) for data backup; and one GPU based workstation for simulation-based analyses.

Our server details:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| ID | IP | CPU Type | CPU counts | Memory |
| 1 | 185 | AMD Opteron(tm) Processor 6176 | 24 | 64G |
| 2 | 186 | AMD Opteron(tm) Processor 6176 | 24 | 64G |
| 3 | 187 | AMD Opteron(tm) Processor 6176 | 24 | 64G |
| 4 | 188 | AMD Opteron(tm) Processor 6176 | 24 | 64G |
| 5 | 189 | AMD Opteron(tm) Processor 6176 | 24 | 64G |
| 6 | 190 | AMD Opteron(tm) Processor 6176 | 24 | 64G |
| 7 | 191 | AMD Opteron(tm) Processor 6176 | 24 | 64G |
| 8 | 192 | AMD Opteron(tm) Processor 6176 | 24 | 64G |
| 9 | 193 | AMD Opteron(tm) Processor 6180 SE | 24 | 180G |
| 10 | 194 | Intel(R) Xeon(R) CPU X5690 | 24 | 96G |
| 11 | 110 | Intel(R) Xeon(R) CPU E7- 4870 | 80 | 512G |