Name	Description	Unit no.	Brief description of the utilization of the instrument
Freezer	Ultra-low temperature freezer (-80°C)	11	Sample storage
Freezer	Upright Freezer (-20°C)	5	Sample storage
Cryogenic dewar	Liquid nitrogen vessel	1	Sample storage
Fume hood	Lab ducted fume hood	2	Prevention of the release of hazardous substances into the laboratory space by controlling and then exhausting hazardous and/or odorous chemicals
Imaging system	Image capture system and analysis	2	Capture of western blot and gel images and analysis of data. This system supports basic imaging applications associated with chemiluminescent western blots, as well as fluorescent stained nucleic acid gels, fluorescent stained protein gels, and colorimetric stained protein gels.
Autoclave	Steam sterilizer	1	Sterilization of laboratory consumables
Hood	Cell culture hood	2	Protection of cell cultures and researcher from contamination
Centrifuge	Laboratory device that spins samples at high speed to separate components based on density	15	Fluid component separation
Refrigerated centrifuge	Laboratory device that spins samples at high speed to separate components based on density	3	Fluid component separation
Incubator	Insulated enclosure in which temperature, humidity, and other environmental conditions can be regulated at levels optimal for growth, hatching, or reproduction.	5	Culture of cells
Liquid handling robot	Hamilton STARlet M Aliquot System	1	Automation of sample aliquoting

Liquid handling robot	Hamilton STAR M High volume Extraction System fitted with the appropriate equipment and protocols for DNA extraction from 5 ml EDTA whole blood.	1	Automation of extraction, quantification, and aliquoting of DNA
Confocal microscope	A specialized form of standard fluorescence microscopy that uses particular optical components to generate high-resolution images of material stained with fluorescent probes.	1	Visualization and image capture of cells and tissues
Microtome	Manual microtome	1	Production of extremely thin slices (sections) of tissue samples for consequent staining and visualization
Refrigerator	A device that keeps samples or materials at low temperatures to preserve their stability and prevent degradation.	9	Storage of consumables and reagents
Next-generation sequencer	Next-generation sequencing (NGS) is a massively parallel sequencing technology that offers ultra-high throughput, scalability, and speed. The technology is used to determine the order of nucleotides in entire genomes or targeted regions of DNA or RNA.	1	Parallel sequencing of hundreds of genes simultaneously to detect novel or rare variants
Sanger sequencer	Sanger sequencing, also known as the chain termination method, is a technique for DNA sequencing based upon the selective incorporation of chain-terminating dideoxynucleosides (ddNTPs) by DNA polymerase during *in-vitro* DNA replication.	1	Sequencing for validation of gene variants
Ion Chef	NGS workflow simplification.	1	Automated library preparation, template preparation, and chip loading for NGS.
Thermal Cycler	Polymerase chain reaction machine.	13	Amplification of DNA.
Real-time PCR	Real-time polymerase chain reaction machine.	1	Real-time monitoring of PCR products, useful for investigating gene expression.
Hybridization oven	Instrument used for accurate temperature control for active mixing and hybridization.	2	Prehybridization and hybridization of membranes used in blotting techniques as well as for active, temperature controlled mixing.

Biobank Information Management System	Software for managing the biobank systems, aliquots, samples, freezers, distribution, shipments, etc.	1	This software is used to manage all the relative biobank systems being physical or virtual (samples, storage, freezers, etc.)
Electronic Data Capture System	Advanced software that is used to electronically collect information	1	A secure web application designed for data collection and management in research studies and clinical trials. It provides a user-friendly interface for researchers to create electronic forms, capture data, and store it in a secure and compliant manner. It is widely used in academic and healthcare settings to streamline data collection and facilitate data analysis, making it a valuable tool for research projects and data-driven studies.
Computing server nodes	Computing nodes that are used for computational heavy tasks	3	The computing nodes are used to host several virtual systems for bioinformatics, health and biobank informatics applications
Data storage	Petabyte data storage units	3	Storage medium to hold the data and information generated in the biobank. Current capacity is 3 Petabytes
Virtual Machine hypervisor	System to manage virtual machines and containers	3	Specialized software and platform, το manage virtual machines and containers
Genetic variant management system	System to manage the vast amounts of information from genomics experiments	1	Software designed for annotating and prioritizing genetic variants. It is primarily used in genomics and bioinformatics to help researchers and clinicians analyze genetic variants by providing information about their potential functional impact and relevance to diseases.