

ATTACHMENT 2 - Maintenance and Calibration Requirements for Equipment Commonly Used in Research Biorepositories

Item	Maintenance required	Verification of function
Autoclaves	Cleaning, pressure vessel, system of surveillance, maintenance contract as required; run with indicators	Manufacturers; service
Incubators	Cleaning, system of surveillance, maintenance contract as required	Manufacturers' standard on service, temperature calibration
Liquid nitrogen storage vessels	Cleaning, leakage, pressure, temperature check	Five yearly Manufacturer's Test
Centrifuges	Cleaning, system of surveillance, maintenance contract as required	Regular cleaning, Manufacturer's service
Cryo-storage tanks	Removal of condensation and ice, look for malfunction of liquid nitrogen level alarms	
Liquid nitrogen store oxygen level alarm	System of surveillance, maintenance contract as required	Manufacturers' standard on service
Liquid nitrogen level alarms	Look for malfunction	None
Programmed Cooler	System of surveillance, maintenance contract as required	None
Cryomicroscope	Clean after use, temperature calibration	Calibration equipment provided for test at each time of use
Spin and self-freeze-drier	System of surveillance, maintenance contract as required	Calibration of the vacuum gauge
Microtome	Clean after use	
Microscopes	Clean after use, system of surveillance, maintenance contract as required	
Laminar Flow Cabinet	Clean after use, airflow, particle count	Annual functionality test
Class II Microbiological Safety Cabinet	Clean after use, system of surveillance, maintenance contract as required, particle count, KI test	Manufacturers' standard on service
DNA Extractor	Clean after use	Manufacturers' standard on service
-20°C Freezer	Temperature check	Temperature calibration
-80°C Freezer	Temperature check and registration, system of surveillance, maintenance contract as required, security advices, clean	Manufacturers' standard on service, temperature calibration
Media preparation equipment	Clean after use	
Balance	Clean after use, system of surveillance, maintenance contract as required	Manufacturer's standard on service
pH Meter	Clean after use	Test against Manufacturers' standard
Computers	Firewall, safeguard	