

## LabCentral 700 Equipment List

### Private Lab Equipment List

C170i CellXpert CO<sub>2</sub> Cell Culture Incubator  
 ThermoMixer C w/ SmartBlock (24 x 1.5mL tubes)  
 4°C Refrigerator  
 -20°C Freezer  
 Ultra Low Temperature (ULT) Freezer  
 Refrigerated Benchtop Centrifuge 5810R  
 w/ bucket, plate, 15mL/50mL conical tubes adaptors

10L Waterbath  
 Chemical Fume Hood  
 MicroCentrifuge 5424R w/ 1.5mL rotor  
 Inverted Light Microscope  
 Vortex Mixer  
 Biosafety Cabinet (NSF Class II, Type A2)

\* Private labs differ in size and layout. Listed equipment may vary

### Private Bench Equipment List

Dedicated 4°C storage space in cold room  
 Dedicated -20°C storage space in freezer room  
 Dedicated ULT Freezer storage space in freezer room  
 Shared undercounter 4°C and -20°C storage at bench  
 Easypet 3 Pipette Controller w/ charger  
 Shared Vortex Mixer

Micropipettor (0.1 - 2.5 µL)  
 Micropipettor (0.5 - 10 µL)  
 Micropipettor (2 - 20 µL)  
 Micropipettor (10 - 100 µL)  
 Micropipettor (20 - 200 µL)  
 Micropipettor (100 - 1000 µL)

### Shared LabCentral 700 Equipment List

#### Equipment Type

#### Manufacturer

#### Liquid Handling Systems/Purification:

QIAcube  
 Unagi automated buffer exchanger  
 Kingfisher Apex  
 Maxwell RSC System  
 405<sup>TS</sup> Microplate washer  
 epMotion 96  
 epMotion 5075tc  
 VIAFLOW 384 (300ul, 96 well head)  
 Integra Assist Plus  
 GentleMACS Octo Dissociator with Heaters  
 TissueLyser III

QIAGEN  
 Unchained Labs  
 Thermo Fisher Scientific  
 Promega  
 Agilent BioTek  
 Eppendorf  
 Eppendorf  
 Integra  
 Integra  
 Miltenyi Biotec  
 QIAGEN

#### Gene Expression Analysis/Genotyping/Electroporation:

Spectrum Compact CE Sanger Sequencing System  
 ExPERT GTx electroporator  
 QIAcuity dPCR  
 Absolute Q Digital PCR System  
 Mastercycler X50i and X50s thermal cycler  
 VeritiPro thermal cycler (96 well block)  
 QuantStudio 6 Pro Real-Time PCR System (96 x 0.2mL/384 well blocks)  
 QuantStudio 7 Pro Real-Time PCR System (96 x 0.2mL/384 well blocks)  
 QuantStudio 7 Flex Real-Time PCR System  
 Neon NxT Transfection System  
 Gene Pulser xCell Electroporation System

Promega  
 MaxCyte  
 QIAGEN  
 Thermo Fisher Scientific  
 Eppendorf  
 Thermo Fisher Scientific  
 Thermo Fisher Scientific  
 Thermo Fisher Scientific  
 Thermo Fisher Scientific  
 Invitrogen  
 Bio-Rad

#### Analytical Chemistry:

1260 Infinity Bio-inert LC System

Agilent

1290 Infinity II LC System	Agilent
LC/MSD iQ System	Agilent
6545XT AdvanceBio LC/Q-TOF	Agilent
ÄKTA go FPLC System	Cytiva
Endosafe Nexgen-PTS	Charles River

**Bioanalytical Equipment:**

Attune CytPix Flow Cytometer w/ Autosampler -- Blue/Red/Yellow/Violet 6 4-Laser configuration	Thermo Fisher Scientific
Attune NxT Flow Cytometer w/ Autosampler -- Blue/Red/Yellow/Violet 6 4-Laser configuration	Thermo Fisher Scientific
FlowJo Analysis Software	FLOWJO, LLC
2100 Bioanalyzer	Agilent
TapeStation 4150	Agilent
Seahorse XFe96 Analyzer	Agilent
PALA single cell dispenser	Namocell
Stunner UV-Vis and DLS	Unchained Labs
Monolith X binding affinity analyzer	Nanotemper
Prometheus Panta	Nanotemper
Gator Plus BLI	Gator Bio

**Cell/Particle Counters:**

Countess 2 and 3 FL (GFP, RFP) Automated Cell Counters	Invitrogen
Cellometer Auto 2000	Revvity
Cellometer Ascend	Revvity
Cellaca MX	Revvity
Vi-Cell XR counter	Beckman Coulter

**Plate Readers/Spectrophotometers:**

Cary 3500 Multicell Peltier UV-VIS	Agilent
SpectraMax i3x Multi-Mode Microplate Reader Platform	Molecular Devices
SpectraMax M5 <sup>e</sup>	Molecular Devices
SpectraMax Mini	Molecular Devices
EnVision Nexus	Revvity
VICTOR Nivo	Revvity
GloMax Discover Plate Reader w/ Injector System (UV/Vis, Fluorescence, Luminescence, BRET, FRET)	Promega
Synergy H1 Multimode reader	Agilent BioTek
Cytation 5 Cell Imaging Multimode Reader (UV/Vis, Fluorescence, Luminescence, High Content Cell Imaging)	Agilent BioTek
Celigo brightfield and fluorescent imaging system	Nexcelom
Ultrospec 2100 Pro	Amersham Biosciences
NanoDrop 8000 UV Spectrophotometer	Thermo Fisher Scientific
NanoDrop One C	Thermo Fisher Scientific
Qubit 2.0 and 3.0 Fluorometer	Thermo Fisher Scientific
MESO QuickPlex SQ 120	Meso Scale Discovery
Luminex MAGPIX Multiplex System	Millipore Sigma

**Electrophoresis/Imaging Systems:**

Wes automated western blotting system	Bio-Techne
Ella ELISA System	Bio-Techne
LabChip GX II Touch HT	Revvity

XCell4 Surelock Midi-Cell Electrophoresis Systems	Life Technologies
XCell Surelock Mini-Cell Electrophoresis Systems	Life Technologies
Bolt Mini Gel Tanks	Life Technologies
Owl Easy Cast	Thermo Fisher Scientific
Midi-Horizontal Electrophoresis System	CBS Scientific
PowerEase 90/300/500w Power Supply	Life Technologies
EPS-300X Power Supply	CBS Scientific
iBind and iBind Flex Western Device	Life Technologies
iBlot 3 Gel Transfer Systems	Life Technologies
E-Gel Power Snap Plus w/ Camera System	Life Technologies
Odyssey M Imaging System	LI-COR
Odyssey DLx Imaging System	LI-COR
Odyssey XF Imaging System	LI-COR
iBright FL1000 Imaging System	Thermo Fisher Scientific
iBright FL1500 Imaging System	Thermo Fisher Scientific

### Microscopy and Imaging:

Inverted Light Microscopes	VWR & Fisher
EVOS XL Core	Thermo Fisher Scientific
EVOS Flويد Imaging System	Thermo Fisher Scientific
EVOS M3000	Thermo Fisher Scientific
EVOS M5000	Thermo Fisher Scientific
EVOS M7000	Thermo Fisher Scientific
Axio Vert A1.0 w/ X-Cite 120Q	Zeiss
Axioscan 7	Zeiss
Celldiscoverer 7 system	Zeiss
Cytation C10	Agilent BioTek
Stemi 508 Dissecting Scope with AxioCam 105 Color Camera	Zeiss
APX100 Digital Imaging System	Evident (Olympus)
FV3000 Confocal Microscope	Evident (Olympus)
HIVE image processing workstation	Aquifer
Celleste Digital Imaging Software	Thermo Fisher Scientific

### Centrifuges:

MX 120+ Micro-Ultracentrifuge	Sorvall
S50-A Fixed Angle Rotor (6 x 30mL)	
S110-AT Fixed Angle Rotor (8 x 5mL)	
S55-A2 Fixed Angle Rotor (12 x 1.5mL)	
S50-ST Swinging Bucket Rotor (4 x 7mL)	
Lynx 4000 and 6000 Superspeed Centrifuge	Sorvall
Fiberlite F9 -- 6 x 1000mL LEX Fixed Angle Rotor	
Fiberlite F12 -- 6 x 500mL LEX Fixed Angle Rotor w/ 6 x 250mL adapter	
F14-14x50CY -- 14 x 50mL Fixed Angle Rotor	
T29-8x50 -- 8 x 50mL Fixed Angle Rotor	
BIOFlex HC -- Swinging Bucket Rotor w/ 10 x 50mL tube, 24 x 15 mL tube, 4 x 1000 mL bottle, and microplate adapters	
5810R Benchtop Centrifuge	Eppendorf
5910Ri Benchtop Centrifuge	Eppendorf
5430R Benchtop Centrifuge	Eppendorf
5424 Benchtop Microcentrifuge	Eppendorf
5424R Benchtop Microcentrifuge	Eppendorf
Allegra X-15R Benchtop Centrifuge	Beckman Coulter

Allegra 6R Benchtop Centrifuge  
Plate Centrifuge  
Mini Centrifuge  
Microfuge 16 Benchtop Centrifuge

Beckman Coulter  
Southwest Sciences  
VWR  
Beckman Coulter

#### Sonicators:

Q125 Sonicator w/ Probe  
Cup Horn Sonicator  
CPX2800H Sonicator Bath

Qsonica  
Qsonica  
Branson

#### Lyophilizer/Vacuum Concentrator:

FreeZone Plus 4.5 Liter Cascade Freeze Dry System  
Vacufuge Plus  
F-45-48-11 -- 48 x 1.5mL Tube Rotor  
A-2-VC -- 2 x Microplate Rotor

LabConco  
Eppendorf

#### Balances:

Cubis Semi-Micro Balance w/ Automatic Doors & Ionizer, 220g x 0.01mg  
Cubis Semi-Micro Balance w/ Manual Doors, 220g x 0.01mg  
Cubis Toploader Balance w/ Touch Screen, 4200g x 0.01g  
Discovery Analytical Balance, 210g x 0.1mg  
Navigator Pan Balance, 210g x 0.01g  
Explorer Semi-Micro Balance, 220g x 0.1mg  
Adventurer Precision Balance, 2200g x 0.01g

Sartorius  
Sartorius  
Sartorius  
Ohaus  
Ohaus  
Ohaus  
Ohaus

#### Sample Prep and Processing Equipment:

Sunscreen LNP formulation screener  
ThermoMixer C w/ SmartBlock (24 x 1.5mL and 24 x 0.5mL tubes)  
Multichannel pipettes (assorted)  
Heatblock  
pH and Conductivity Meter  
Rockers  
Orbital Plate Shakers  
Hot/Stir Plates  
Vortex Mixer  
Rugged Rotator w/ tissue culture tube head  
Rotating Tube Mixer  
3050s Cryostat  
Slide Warmer  
Tissue Drying Oven  
Microwave Ovens

Unchained Labs  
Eppendorf  
Integra  
VWR  
Mettler Toledo and VWR  
Various  
Various  
Various  
VWR  
Glass-Col  
Thermo Fisher Scientific  
Leica  
Lab-Line  
Medita  
Various

#### Controlled Temperature, Incubation, and Environmental Chambers

VIP+ Series Cryogenic Freezer  
CryoMed Controlled-Rate Freezer  
37°C Waterbath(s)  
Heratherm OMH60 Oven  
BD 53 Incubator w/ Gravity Convection  
Innova 42 Bacterial Shaker Incubator (for BSL1 and BSL2 organisms)  
Innova 42R Bacterial Shaker Incubator (for BSL1 and BSL2 organisms)  
Innova 44 Bacterial Shaker (for BSL1 organisms)  
Innova s44i Bacterial Shaker Incubator (for BSL1 organisms)

PHCBI  
Thermo Electron  
Various  
Thermo Fisher Scientific  
Binder  
Eppendorf  
Eppendorf  
Eppendorf  
Eppendorf

Heratherm Microbial Incubator (for BSL1 and BSL2 organisms)	Thermo Fisher Scientific
37°C, 5% CO <sub>2</sub> Cell Culture Incubators(s)	Various
New Brunswick S41i CO <sub>2</sub> Incubator Shaker	Eppendorf
Type II Class A2 Biosafety Cabinet(s)	Various
Concept 500 Anaerobic Workstation	Baker Rushkin
Airegard Horizontal Laminar Flow Clean Workstation	NuAire
Airclean 600 PCR Workstation	AirClean Systems

**Facility Systems:**

Cold Rooms for storage and/or sample prep (4°C)	N/A
Chemical Hood(s)	N/A
House Deionized Water System	N/A
Available House RO Water	N/A
Arium Pro DI/UV Lab Water System (Type I water)	Sartorius
Synergy UV Water Purification System (Type I water)	Millipore
House Vacuum System	N/A
AMSCO 250LS Autoclave	Steris
Reliance 100LS and 400XLS Glasswashers	Steris
Ice Machines and Dry Ice Chests	Various

## LabCentral 610 Equipment List

### LabCentral 610 Private Lab Equipment List

Corrosive Chemical Cabinet	Vortex Mixer
4°C Refrigerator	Hot/Stir Plate
-20°C Freezer	MicroCentrifuge 5424 w/ 1.5mL rotor
Ultra Low Temperature (ULT) freezer	Chemical Fume Hood
Refrigerated Benchtop Centrifuge 5810R	ThermoMixer C w/ SmartBlock
w/ bucket, plate, 15mL/50mL conical tubes adaptors	(24 x 1.5mL tubes) and ThermoTop

### LabCentral 610 Private Tissue Culture Lab Equipment List

Biosafety Cabinet (NSF Class II, Type A2) (x2)	Vortex Mixer
Galaxy 170 or C170i CO <sub>2</sub> Incubators (x4)*	20L Waterbath
Mini-spin Centrifuge	Inverted Light Microscope
Refrigerated Benchtop Centrifuge 5810R	Countess II Automated Cell Counter
w/ bucket, plate, 15mL/50mL conical tubes adaptors	4°C Refrigerator

*\*Labs are responsible for ordering and maintaining their CO<sub>2</sub> supply.*

### Shared LabCentral 610 Equipment List

Equipment Type	Manufacturer
CryoPlus 3 LN <sub>2</sub> Storage	Thermo Fisher Scientific
Lynx 6000 Superspeed Centrifuge	Sorvall
Fiberlite F9 -- 6 x 1000mL LEX Fixed Angle Rotor	
Fiberlite F12 -- 6 x 500mL LEX Fixed Angle Rotor w/ 6 x 250mL adapter	
F14-14x50CY -- 14x50mL Fixed Angle Rotor	
BIOFlex HC Swinging Bucket Rotor w/15 mL tube and 1000 mL	
MX 120+ Micro-Ultracentrifuge	Sorvall
S50-A Fixed Angle Rotor (6 x 30mL)	

S110-AT Fixed Angle Rotor (8 x 5mL)	
S55-A2 Fixed Angle Rotor (12 x 1.5mL)	
S50-ST Swinging Bucket Rotor (4 x 7mL)	
AMSCO 250LS Autoclave	Steris
Reliance 100LS Glasswashers	Steris
Ice Flaker	Hoshizaki
RiOS Essentials 8 RO Water System	Millipore Sigma
Dry ice chest	N/A
Backup cold storage SU105UE freezers (-20°C to -86°C)	Stirling

**Microscopes:**

Revolve Hybrid Fluorescence Microscope	Echo
CellInsight CX7 LZR Pro High-Content Screening Platform*	Thermo Fisher Scientific
LSM 9000 Confocal microscope	Zeiss

**Facility Systems:**

House Deionized Water System	N/A
House Vacuum System	N/A
Refrigerated Benchtop Centrifuge - Sorvall X4R, Pro MD w/ TX-1000 Swinging bucket rotor, x4 buckets, 15mL/50ml conical	

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## LabCentral 238 Equipment List

### LabCentral 238 Private Lab Equipment List

|                                                                                                                        |                                          |
|------------------------------------------------------------------------------------------------------------------------|------------------------------------------|
| Chemical Fume Hood                                                                                                     | Corrosive Chemical Cabinet               |
| Ultra Low Temperature (ULT) freezer                                                                                    | 4°C Refrigerator                         |
| -20°C Freezer                                                                                                          | Refrigerated MicroCentrifuge - Micro 21R |
| Refrigerated Benchtop Centrifuge - Sorvall X4R, Pro MD w/ TX-1000 Swinging bucket rotor, x4 buckets, 15mL/50ml conical |                                          |

### LabCentral 238 Private Process Development Lab Equipment List

|                                                                                                              |                           |
|--------------------------------------------------------------------------------------------------------------|---------------------------|
| Biosafety Cabinet (NSF Class II, Type A2) w/ VacuTrap                                                        | Inverted Light Microscope |
| Countess III Automated Cell Counter w/ GFP and RFP light cubes                                               | 4°C Refrigerator          |
| Regulators for medical grade N <sub>2</sub> , O <sub>2</sub> , and CO <sub>2</sub> gasses and compressed air |                           |

### LabCentral 238 Private Tissue Culture Lab Equipment List

|                                                                  |                                     |
|------------------------------------------------------------------|-------------------------------------|
| Biosafety Cabinet (NSF Class II, Type A2) w/ VacuTrap (x3)       | 20L bead bath                       |
| 4°C Refrigerator                                                 | Countess III automated cell counter |
| HERACell VIOS 160i CO2 Incubator (x4)                            | w/ GFP and RFP filters              |
| New Brunswick s41i CO2 Shaking Incubator (x2)                    | Inverted microscope                 |
| w/ 250, 500, and 1000mL flask adaptors                           |                                     |
| Sorvall ST 8R Benchtop Centrifuge                                |                                     |
| w/ TX-150 Swinging Bucket Rotor, 15mL/50mL conical tube adaptors |                                     |

### Shared LabCentral 238 Equipment List

| Equipment Type                        | Manufacturer   |
|---------------------------------------|----------------|
| Liquid Handling Systems/Purification: |                |
| 405 <sup>LS</sup> Microplate washer   | Agilent BioTek |

#### Gene Expression Analysis/Genotyping/Electroporation:

|                                                                     |                          |
|---------------------------------------------------------------------|--------------------------|
| QuantStudio 6 Pro Real-Time PCR System (96 x 0.2mL/384 well blocks) | Thermo Fisher Scientific |
| QX600 AutoDG ddPCR                                                  | Bio-Rad                  |
| PX1 PCR plate sealer                                                | Bio-Rad                  |
| C1000 thermal cycler                                                | Bio-Rad                  |
| CTS Xenon Electroporation System                                    | Thermo Fisher Scientific |

#### Analytical Chemistry:

|                                                                            |        |
|----------------------------------------------------------------------------|--------|
| BioAccord LCMS with Acquity Premier UPLC<br>w/ TUV, FLR, and TOF detectors | Waters |
| Arc Premier UPLC System<br>w/ PDA, FLR, ELS, and Qda detectors             | Waters |

#### Bioanalytical Equipment:

|                                                                                                                                        |                          |
|----------------------------------------------------------------------------------------------------------------------------------------|--------------------------|
| Attune NxT Flow Cytometer<br>w/ CytKick Autosampler<br>Four Lasers (405nm, 488nm, 561nm, 640nm)                                        | Thermo Fisher Scientific |
| Attune Cytpix Flow Cytometer<br>w/ high-speed brightfield camera<br>w/ CytKick Autosampler<br>Four Lasers (405nm, 488nm, 561nm, 640nm) | Thermo Fisher Scientific |
| PALA Single Cell Dispenser                                                                                                             | Namocell                 |
| Cedex Media Bio Analyzer                                                                                                               | Roche                    |

#### Plate Readers/Spectrophotometers:

|                                  |                          |
|----------------------------------|--------------------------|
| Varioskan LUX Plate Reader       | Thermo Fisher Scientific |
| NanoDrop One C Spectrophotometer | Thermo Fisher Scientific |
| FLEXMAP 3D System                | Luminex                  |
| QuickPlex SQ 120 Plate Reader    | MSD                      |

#### Electrophoresis/Imaging Systems:

|              |                          |
|--------------|--------------------------|
| iBright 1500 | Thermo Fisher Scientific |
| Odyssey M    | LI-COR                   |

#### Microscopy and Imaging:

|                                                       |                          |
|-------------------------------------------------------|--------------------------|
| V200 Slide Scanner                                    | Evident                  |
| EVOS XL Core Imaging System                           | Thermo Fisher Scientific |
| EVOS M5000 Imaging System                             | Thermo Fisher Scientific |
| EVOS M7000 Imaging System                             | Thermo Fisher Scientific |
| STEDYCON Super Resolution Confocal Imaging Microscope | Abberior                 |

#### Centrifuges:

|                                                                                                       |         |
|-------------------------------------------------------------------------------------------------------|---------|
| Lynx 6000 Superspeed Centrifuge                                                                       | Sorvall |
| Fiberlite F9 -- 6 x 1000mL LEX Fixed Angle Rotor                                                      |         |
| Fiberlite F12 -- 6 x 500mL LEX Fixed Angle Rotor<br>w/ 6 x 250mL adapters                             |         |
| Fiberlite F14 -- 14 x 50mL Fixed Angle Rotor                                                          |         |
| Fiberlite F20 -- 12 x 50ml LEX Fixed-Angle Rotor                                                      |         |
| Lynx A27-6x50 -- 6 x 50ml Fixed Angle Rotor                                                           |         |
| BIOFlex HC -- 4 x 1000ml Swinging Bucket Rotor<br>w/ adapters for 15mL and 50mL tubes and microplates |         |

|                                                                       |                          |
|-----------------------------------------------------------------------|--------------------------|
| WX 80+ Ultracentrifuge                                                | Sorvall                  |
| Surespin 632 Swinging Bucket Rotor – 6 x 38.5ml                       |                          |
| Fiberlite F50L Fixed Angle Rotor – 24 x 1.5ml                         |                          |
| Fiberlite F37L Fixed Angle Rotor – 8 x 100ml                          |                          |
| 5910Ri Bench Top Centrifuge                                           | Eppendorf                |
| <b>Sonicators:</b>                                                    |                          |
| M5800H Sonicator Bath                                                 | Branson                  |
| <b>Lyophilizer/Vacuum Concentrator:</b>                               |                          |
| Lyophilizer                                                           | LabConco                 |
| <b>Balances:</b>                                                      |                          |
| ME204T/00 Analytical Balance                                          | Mettler Toledo           |
| <b>Sample Prep and Processing Equipment:</b>                          |                          |
| pH Meter                                                              | Thermo Fisher Scientific |
| CTS Rotea                                                             | Thermo Fisher Scientific |
| CTS DynaMag Magnet                                                    | Thermo Fisher Scientific |
| Vortex                                                                | Argos                    |
| <b>Controlled Temperature, Incubation, and Environmental Chambers</b> |                          |
| Backup Cold Storage (4oC, -20oC, and ULT)                             | Thermo Fisher Scientific |
| VIP+ Series Cryogenic Freezer                                         | PHCBI                    |
| CryoPlus3 LN2 Storage                                                 | Thermo Fisher Scientific |
| CryoMed Controlled Rate Freezer                                       | Thermo Fisher Scientific |
| Digital Rocker                                                        | Thermo Fisher Scientific |
| Tubing Welder                                                         | Terumo                   |
| HERACell VIOS 160i CO2 incubator                                      | Thermo Fisher Scientific |
| <b>Facility Systems:</b>                                              |                          |
| PLW6111 Glasswasher                                                   | Miele                    |
| SSR-3A-X1 Autoclave                                                   | Consolidated Sterilizers |
| SR-26A Autoclave                                                      | Consolidated Sterilizers |
| Ice Flaker                                                            | Various                  |
| Dry Ice Chest                                                         | Various                  |
| Chemical Fume Hood                                                    | Mott                     |
| GenPure Water Purification System                                     | Thermo Fisher Scientific |

*revised 11/26/2024*