

Technical Expertise**Contact****Analysis**

Analysis-Colocalization Analysis	Thomas A
Analysis-Deconvolution Method:	Thomas A
Analysis-Histone modification analysis	Dorota
Analysis-Image Pro Plus Software analysis	Jasemine Yang
Analysis-Segmentation Analysis:	Thomas A
Analysis-Viewing specimens: TEM, AFM, SEM, JB4 and freeze fracture images	Fanny

Animal Studies

Animal Studies-Aortic Surface Lesion Area Quantitation by En Face	Hongyan
Animal Studies-BAL cell count and differential:	Koichi/David J
Animal Studies-Colony Management, Breeding techniques, breeding scheme	Tatjana
Animal Studies-Containment level 2 suite for animal studies	GEM
Animal Studies-Cross fostering, caesarian and embryo rederivation	Tatjana
Animal Studies-Drug development and dosing, dermal, ocular model development	Claire
Animal Studies-en fas analysis of aortas (dissection, cleaning, etc)	Ted/Leanne
Animal Studies-Exercise wheel systems for mice (voluntary, electronic)	GEM
Animal Studies-Handling, injection, blood collection, anesthesia training	Claire, Tatjana, Lubos
Animal Studies-Harvesting lungs, liver, heart, and aorta from mice	Koichi
Animal Studies-Isoflurane anesthetic machine	GEM
Animal Studies-Kent CODA Blood pressure monitoring system for rodents	GEM
Animal Studies-Micro-Dissector	Dennis
Animal Studies-Microsurgical scopes with training arm:	GEM
Animal Studies-Morphometric analysis of the mouse lung	Koichi
Animal Studies-Mouse anesthesia (general, IP, subQ)	Koichi
Animal Studies-Mouse bronchoalveolar lavage (BAL)	Koichi
Animal Studies-Mouse catheterization and blood collection (Arterial and venous)	Koichi
Animal Studies-Mouse Intratracheal intubation	Koichi
Animal Studies-Mouse surgery	Yingjin
Animal Studies-Mouse tracheotomy	Koichi
Animal Studies-Muscle Stimulation	Dennis
Animal Studies-Myography	Pascal
Animal Studies-Myography	Tammy
Animal Studies-Northwestern Rack cagewasher	GEM
Animal Studies-Protocol development, procedures, writing	GEM staff
Animal Studies-SOP writing	GEM staff
Animal Studies-Steris Autoclave:	GEM
Animal Studies-Study design, protocol development and report writing	Claire
Animal Studies-Surgery	Koichi
Animal Studies-Surgical model:	Lubos, Claire

Animal Studies-Tecniplast individually ventilated caging system:	GEM
Animal Studies-Tissue Collection / dissection	Rich
Animal Studies-Various surgical instruments (microsurgical and larger)	GEM
Animal Studies-Video capture equipment (for filming surgical procedures)	GEM
Animal Studies-Visualsonics rodent ultrasound	Lubos/Claire
Animal Studies-Visualsonics rodent ultrasound (echo)	Lubos
Animal Studies-Working Heart Perfusion (WH)	Rich

Assays

Assays-Electrophoretic mobility shift assays (EMSA) (radioactive)	Simone
Assays-ELISA	Ted
Assays-ELISA	Tillie
Assays-ELISA	Varun
Assays-ELISA	Wendy
Assays-ELISA	Zongshu
Assays-ELISAs	Gurpreet
Assays-ELISAs	Simone/Taka/Emily
Assays-Enzyme Activity Assays (32P)	Varun
Assays-Flow Cytometry / cell sorting - all aspects	Beth Whalen
Assays-Luciferase Assays	Simone/Emily
Assays-Luminex Assay	John
Assays-Measuring total and hepatic lipase activity from plasma	Daven/Eugene
Assays-Multiplex suspension arrays (Luminex)	Beth Whalen
Assays-Nitric Oxide quantification	Pascal

Bioanalyzer-Agilent 2100

Bioanalyzer-Agilent 2100	John G
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Biobanking

Biobanking - blood products	Beth Whalen
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Blood/bone marrow cell separation

blood/bone marrow cell separation	Beth Whalen
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Cardiovascular Registry

Cardiovascular Registry-Biobanking	Crystal/Lise
Cardiovascular Registry-Ethics/Privacy	Crystal/Lise
Cardiovascular Registry-Gross Photography	Crystal/Lise
Cardiovascular Registry-Microscopy	Crystal/Lise
Cardiovascular Registry-Patient Consent	Crystal/Lise
Cardiovascular Registry-Pulmonary Biobanking	Mark Elliott
Cardiovascular Registry-Tissue Archiving	Crystal/Lise
Cardiovascular Registry-Tissue Request	Crystal/Lise

Cell Culture (CC)

Cell Culture	Bernatchez lab
Cell Culture	Hongyan
Cell Culture	John
Cell Culture	Varun
Cell Culture	Yuexin/Anthony
Cell Culture	Zongshu
Cell Culture- (suspension or adherent	Walley lab
Cell Culture- (suspension or adherent), RSV infection	Gurpreet
Cell Culture- General (seeding, splitting, feeding, freezing)	Francis Lab
Cell Culture-ACAT assay (14C-Cholesteryl Oleate)	Ted/Leanne
Cell Culture-Adeno Virus Infection - H9c2 cell:	Varun
Cell Culture-Air liquid interface culture:	Tillie
cell culture-Air Liquid Interphase (ALIs)	Sam Wadsworth
Cell Culture-Cholesterol accumulatio	Eugene/Ming
Cell Culture-Cholesterol efflu	Eugene/Ming
Cell Culture-Cholesterol Efflux (3H-Cholesterol	Ted/Leanne
Cell Culture-Dil Cholesterol cellular associatio	Eugene/Ming
Cell Culture-Fatty Acid Oxidation (14C)	Varun
Cell Culture-Glucose Oxidation (3H	Varun
Cell Culture-Glucose Uptake	Varun
Cell Culture-LDL Derived Cholesterol Efflux (3H-Cholesterol Linoleate	Ted/Leanne
Cell Culture-New Cholesterol Synthesis (3H-Mevalonic Acid	Ted/Leanne
Cell Culture-Phenyl Alanine Incorporatio	Varun
Cell Culture-Phospholipid Assay (3H-Choline	Ted/Leanne
Cell Culture-Primary and secondary cell cultur	Tillie & Dmitri
Cell Culture-Proliferation Assay (Thymidine incorporatio	Ted/Leanne
Cell Culture-Thymidine Incorporatio	Varun

Clinical Lab Skills

Clinical lab-Hematology, histology, medical microbiology, transfusion medicine, clinical chemist	Ted
Clinical lab-Phlebotomy	Ted

Electron Microscopy

Sectioning and staining for JB-4 (2-5 um	Fanny
Sectioning and staining for TEM (0.5 um, ultra-thin, and cryo sections	Fanny
Specimen processing for JB-4	Fanny
Specimen processing for Scanning Electron Microscopy (SEM) including critical point drying & sputter coat	Fanny
Specimen processing for TEM (including immuno & cryo) & AFI	Fanny

Electrophoresis

Electrophoresis-2-D for Lipoproteins	Emmanuel
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Electrophoresis-Agarose for DNA	Francis Lab
Electrophoresis-Agarose for RNA	Ted
Electrophoresis-DNA Gel	Minnie
Electrophoresis-Native gels for proteir	Francis Lab
Electrophoresis-SDS-Page for proteins	Francis Lab

Flow Cytometry

Flow Cytometry / cell sorting - all aspects	Beth Whalen
Flow cytometry	Furquan
Flow cytometry	Ted/Emmanuel

General Physical Chemistry/ Biophysical Chemistry

General Physical Chemistry/ Biophysical Chemistr	Thomas A
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Histology

Histology-Coverslipping	Crystal/Nicole/Amrit
Histology-Cryosectioning	Crystal/Nicole/Amrit
Histology-Deparaffnizator	Crystal/Nicole/Amrit
Histology-Immunohistochemical stain	Mark Elliott
Histology-Microscopy	Crystal/Nicole/Amrit
Histology-Paraffin sectioning	Crystal/Nicole/Amrit
Histology-Process/embed/section/stain of arterial stents and hard tissue:	Crystal/Amrit
Histology-Routine and special histological stain	Crystal/Nicole/Amrit
Histology-Tissue fixation, processing, embeddin	Crystal/Nicole/Amrit

Human Studies

Human Studies-BAL cell count and differential	Koichi/David J
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Imaging and Image Processing

Image Processing (3D, Multi-Dimensional, Multi-Channels, etc.	Thomas A
Imaging-Electron tomography on TEM & data analyses for high resolution holographic 3-D visualization imaging of cell ultrastructure	Fanny
Imaging-Live Cell Imaging	Thomas A
Imaging-Morphometric image analysis of TEM, LM samples using "Image Pro" software	Fanny
Imaging-Topographically image and manipulate fixed and live specimens using the AF	Fanny

Immunofluorescence and Immunohistochemistry

Immunofluorescence	Soraya
Immunohistochemistry	Hongyan
Immunohistochemistry	Sima
Immunohistochemistry	Soraya
Immunohistochemistry	Yuexin/David
Immunohistochemistry	Zongshu
Immunohistochemistry on parafin and frozen sections for brightfield and flourescenc	Furquan

Isolations (miscellaneous)

Isolation- Lipoprotein (HDL, LDL, VLDL) isolation by Ultracentrifugation	Ted/Leanne
Isolation of TGF-beta1 from serum	Ted
Isolation-Bone marrow isolation from mice	Daven
Isolation-DNA and RNA extraction from blood, cells or tissue	Loubna
Isolation-DNA/RNA/protein extraction	Gurpreet
Isolation-LDL through ultracentrifugation and copper oxidation	Eugene/Ming
Isolation-Mouse Heart Myocyte Isolation	Minnie or Varun
Isolation-Protein purification through FPLC	Ming
Isolation-skin fibroblast from tissue biopsies (human, mouse, rat)	Ted
Isolation-smooth muscle cells from aortas	Ted

Lactate Production

Lactate Production	Varun
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Laser Capture Microdissection (LCM)

Laser Capture Microdissection (LCM)	Gurpreet Singhera
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Microscopy

Microscopy, Atomic Force-Operation, training & maintenance of Bioscope Atomic Force microscope (AFM) in Core 4	Fanny
Microscopy, Electron -Operation, training & maintenance of Tecnai 12 transmission electron microscope (TEM) in Core 4	Fanny
Microscopy-Confocal	Thomas A
Microscopy-Confocal microscopy	Tillie
Microscopy-Confocal Microscopy	Yuxin/David
Microscopy-confocal sample preparation (not software - see Thomas A.)	John G
Microscopy-Fluorescent	Emmanuel
Microscopy-FRAP Microscopy Methods	Thomas A
Microscopy-FRET Microscopy methods	Thomas A
Microscopy-Light	Ted
Microscopy-Linear Microscopy (Wide Field, Polarized Field, Multi-Dimensional, Multi-Channels, etc)	Thomas A
Microscopy-Non-Linear Microscopy (Harmonic Generation, Multi-Photon, Multi-Dimensional, Multi-Channels, etc)	Thomas A

Molecular Biology

Molecular Biology-Bacterial Transformation	Bernatchez Lab
Molecular Biology-Cloning (experience, not expertise....)	Simone/Melissa
Molecular Biology-Coxsackievirus infection	John
Molecular Biology-DNA methylation analysis	Dorota
Molecular Biology-DNA/RNA/protein extraction	Simone/Melissa
Molecular Biology-DNA/siRNA Transfection	John/Jerry/Max
Molecular Biology-Electrophoretic mobility shift assays (EMSA) (radioactive)	Simone/Katherine
Molecular Biology-Histone modification analysis	Dorota
Molecular Biology-Infections adenovirus	Emmanuel/Kristin
Molecular Biology-Infections lentivirus	Kristin

Molecular Biology-light virus work (we're no specialists)	Stephanie
Molecular Biology-mouse genotyping	Hongyan
Molecular Biology-Northern Blotting	Ted
Molecular Biology-PCR	Dorota
Molecular Biology-PCR	Loubna
Molecular Biology-PCR	Minnie
Molecular Biology-PCR	Varun
Molecular Biology-PCR (experience, not a perfectionist...)	Simone/Melissa
Molecular Biology-PCR troubleshooting and optimization	Gurpreet
Molecular Biology-Plaque Assay	Melissa
Molecular Biology-Plasmid construction	Xin Ye/Mary
Molecular Biology-plasmid transfections	Xin Ye/Mary
Molecular Biology-Primer design	Francis Lab
Molecular Biology-Primer design	Gurpreet
Molecular Biology-Primer Design and Optimization	Simone/Melissa
Molecular Biology-Primer Design and Optimization	Soraya
Molecular Biology-Primer Design and Optimization	Ted
Molecular Biology-Primer Design and Optimization	Xin Ye/Mary
Molecular biology-Primer Design and Optimization	Zongshu
Molecular Biology-qPCR	Minnie
Molecular Biology-qPCR	Ted/Leanne
Molecular biology-qPCR	Yuexin/Tammy
Molecular biology-qPCR	Zongshu
Molecular Biology-qPCR	John G
Molecular Biology-qPCR (not SYBR Green)	Soraya
Molecular biology-qRT-PCR	Melissa
Molecular Biology-Reverse-transcription PCR	Soraya
Molecular Biology-Reverse-transcription PCR	Ted/Leanne
Molecular biology-Reverse-transcription PCR	Yuexin
Molecular biology-Reverse-transcription PCR	Zongshu
Molecular Biology-RNA related applications	John G
Molecular Biology-RNA/DNA/Protein isolation	Bernatchez lab
Molecular Biology-RNA/DNA/Protein isolation	Hill Lab
Molecular biology-RNA/DNA/Protein isolation	Sin Lab
Molecular Biology-RNA/DNA/Protein isolation	Xin Ye/Mary
Molecular biology-RNA/DNA/Protein isolation	Zongshu
Molecular Biology-RNA/DNA/Protein isolation (cells and tissues)	Francis Lab
Molecular Biology-Sequencing	Melissa
Molecular biology-Silencing RNA	Tillie
Molecular Biology-Site Directed Mutation	Simone/Melissa
Molecular Biology-SNP Genotyping	Loubna

Molecular Biology-Southern Blotting	Ted
Molecular Biology-Transfections, Stimulation of TC	Gurpreet
Molecular Biology-Transfections, Stimulation of TC	Simone/Melissa
Molecular Biology-Viral amplification/isolation	Arpeeta
Molecular Biology-Viral amplification/isolation	Emmanuel
Molecular Biology-Viral amplification/isolation	Mary
Molecular Biology-Whole Genome Amplification	Loubna

Phlebotomy

Phlebotomy-human venipuncture	Ted
Phlebotomy-Mouse saphenous vein	Ted
Phlebotomy-Venipuncture	Yuexin

Protocol Development

Protocol Development-Immuno EM e.g. DNA, viruses, bacteria, cultured cells & tissue	Fanny
Protocol Development-microwave processing for TEM and SEM	Fanny

Reconstituted HDL Particles

Making reconstituted HDL particles	Ted/Leanne
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Structural Analysis

Structural Analysis-Light, X-ray and Neutron Scattering Method:	Thomas A
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Technology Development

Technology development-Data Acquisition - Labview programming (UBC site wide license)	Keddie
Technology development-Electronic:	Keddie
Technology development-Fabrication - sheet metal forming	Keddie
Technology development-Instrumentation	Keddie
Technology development-Machining - precision metal and plastic	Keddie
Technology development-Mechanical Design	Keddie
Technology development-Welding	Keddie

Thin Layer Chromatography

Thin Layer Chromatography (neutral and phospholipids)	Ted/Leanne
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Training, Equipment

Training on the various equipment and techniques in Core	Fanny
Usage of ABI7900 for setting up realtime qPCR or genotyping runs	Loubna

Western Blotting

Western Blotting	Varun
Western Blotting	Xin Ye/Mary
Western Blotting	Wally Lab
Western Blotting	Bernatchez lab
Western Blotting	Francis Lab

Western Blotting
Western Blotting
Western Blotting
Western Blotting
Western Blotting

Granville lab
Gurpreet
John/Jerry/Max
Zongshu
Furquan

Working Heart Perfusion (WH)

Working Heart Perfusion (WH)
WH - Fatty Acid Oxidation (14C)
WH - Glucose Oxidation (3H)
WH - Glucose Uptake
WH - Lactate Oxidation

Rich
Rich
Rich
Rich
Rich