

## Shared Resources Quick Reference List January 2017

Resource Name	Services	Contact, Phone, Email
Antibody Development	<ul style="list-style-type: none"> <li>Hybridoma Cell Line Production and Optimization</li> <li>Monoclonal Antibody Development</li> </ul>	Ben Hoffstrom, PhD 206-667-6612 <a href="mailto:bhoffstr@fredhutch.org">bhoffstr@fredhutch.org</a>
Arnold Library	<ul style="list-style-type: none"> <li>Ask a Librarian</li> <li>Journal Article Open Access Analysis</li> <li>Interlibrary Loan</li> <li>Online Databases and Journals</li> <li>PubMed Central Deposit Assistance</li> </ul>	Ann Marie Clark 206-667-4314 <a href="mailto:library@fredhutch.org">library@fredhutch.org</a>
Bioinformatics	<ul style="list-style-type: none"> <li>Consulting and Training</li> <li>Genomics and Proteomics Data Analysis and Visualization</li> <li>Programming Support</li> </ul>	Jeff Delrow, PhD 206-667-2714 <a href="mailto:bioinformatics@fredhutch.org">bioinformatics@fredhutch.org</a>
Biologics Production Facility	<ul style="list-style-type: none"> <li>Biologics Production (Research &amp; cGMP Support)</li> <li>Product Quality Testing</li> </ul>	Ron Manger PhD 206-667-5838 <a href="mailto:rmanger@fredhutch.org">rmanger@fredhutch.org</a>
Biomarker Lab	<ul style="list-style-type: none"> <li>Epidemiological &amp; Clinical Studies</li> <li>Nutritional Biochemistry &amp; Cancer Biomarkers</li> </ul>	Xiaoling Song 206-667-5866 <a href="mailto:Xsong2@fredhutch.org">Xsong2@fredhutch.org</a>
CCEH - Core Center for Excellence in Hematology	<ul style="list-style-type: none"> <li>Blood Cell Analysis</li> <li>Genotype Tracking/Cell &amp; Molecular Reagents</li> <li>Hematopoietic Cell Processing &amp; Repository</li> </ul>	Beverly Torok- Storb, PhD 206-667-4549 <a href="mailto:btorokst@fredhutch.org">btorokst@fredhutch.org</a>
Cell Processing Facility	<ul style="list-style-type: none"> <li>Hematopoietic Cell Production</li> <li>Immuno-competent Cell Production</li> </ul>	Linda Wilson 206-667-2838 <a href="mailto:ldwilson@fredhutch.org">ldwilson@fredhutch.org</a>
Cellular Bioenergetics	<ul style="list-style-type: none"> <li>Monitor Bioenergetics State of Cells</li> <li>Seahorse XF24 Bioanalyzer</li> </ul>	David Hockenbery, M.D. 206-667-4611 <a href="mailto:dhockenb@fredhutch.org">dhockenb@fredhutch.org</a>
Clinical Research Support	<ul style="list-style-type: none"> <li>Biostatistical Expertise</li> <li>Clinical Informatics</li> <li>Study Management</li> <li>Regulatory Affairs Assistance</li> </ul>	Paul Martin, M.D. Kristi Stiffler 206-667-4520 <a href="mailto:CRScustomerservice@fredhutch.org">CRScustomerservice@fredhutch.org</a>
Clinical Vector Development	<ul style="list-style-type: none"> <li>Clinical grade virus vectors</li> <li>HIV-1 derived lentivirus</li> </ul>	Hans-Peter Kiem, M.D. 206-667-4425 <a href="mailto:hkiem@fredhutch.org">hkiem@fredhutch.org</a>
Collaborative Data Services	<ul style="list-style-type: none"> <li>Programming &amp; Database Design</li> <li>Survey and Data Operations &amp; Control</li> <li>Telephone Interviewing</li> </ul>	Catherine Duggin, PhD 206-667-2323 <a href="mailto:cduggan@fredhutch.org">cduggan@fredhutch.org</a>
Comparative Medicine	<ul style="list-style-type: none"> <li>Animal Husbandry &amp; Research Veterinary Services</li> <li>Animal Model Development &amp; Breeding Colony Management</li> <li>Comparative Pathology Services</li> </ul>	Rajesh Uthamanthil, DVM, PhD 206-667-5313 <a href="mailto:ruthaman@fredhutch.org">ruthaman@fredhutch.org</a>
Computer Graphics	<ul style="list-style-type: none"> <li>Graphic Design &amp; Posters</li> <li>Photography &amp; Digital Imaging</li> </ul>	Deborah Anderson 206-667-4200 <a href="mailto:graphics@fredhutch.org">graphics@fredhutch.org</a>
Electron Microscopy	<ul style="list-style-type: none"> <li>Cryo-Ultramicrotomy and High Pressure Freezing</li> <li>Immunolectron Microscopy</li> <li>Scanning and Transmission Electron Microscopy</li> </ul>	Bobbie Schneider 206-667-4289 <a href="mailto:emsr@fredhutch.org">emsr@fredhutch.org</a>
Epidemiology	<ul style="list-style-type: none"> <li>Population based studies</li> <li>Cancer Surveillance System (CSS)</li> </ul>	Stephen Schwartz, PhD 206-667-4707 <a href="mailto:esr@fredhutch.org">esr@fredhutch.org</a>
Experimental Histopathology	<ul style="list-style-type: none"> <li>Digital slide scanning and image analysis</li> <li>Histology &amp; Special Stains</li> <li>Immunohistochemistry &amp; Immunofluorescence</li> <li>Laser Capture Microdissection</li> </ul>	206-667-6166 <a href="mailto:exphisto@fredhutch.org">exphisto@fredhutch.org</a>
Flow Cytometry	<ul style="list-style-type: none"> <li>Cell Analysis</li> <li>Cell Sorting</li> <li>CyTOF Mass Cytometer</li> </ul>	Andrew Berger 206-667-61955941 <a href="mailto:flowcytometry@fredhutch.org">flowcytometry@fredhutch.org</a>
Genomics	<ul style="list-style-type: none"> <li>CE Sequencing</li> <li>Microarrays</li> <li>NanoString Technology</li> <li>NextGen Sequencing</li> <li>Quantitative RT-PCR</li> </ul>	Jeff Delrow, PhD 206-667-2714 <a href="mailto:genomics@fredhutch.org">genomics@fredhutch.org</a>
Glassware	<ul style="list-style-type: none"> <li>Biohazardous Waste Processing</li> <li>Glassware Processing</li> <li>Tissue Culture Media</li> </ul>	Karl Ross 206-667-5429 <a href="mailto:glassware@fredhutch.org">glassware@fredhutch.org</a>
Immune Monitoring	<ul style="list-style-type: none"> <li>Cellular Immunoassays &amp; Molecular Assays</li> <li>Cytokine Analysis</li> <li>Immune Phenotyping</li> <li>MHC Tetramers</li> </ul>	Jianhong Cao, PhD 206-667-6455 <a href="mailto:jcao@fredhutch.org">jcao@fredhutch.org</a>
Metabolomics	<ul style="list-style-type: none"> <li>Global Aqueous Metabolite Profiling</li> <li>Global Lipidomics</li> <li>Metabolic Flux Analysis of central carbon and amino acid metabolisms</li> <li>Targeted Metabolite Profiling</li> </ul>	Dan Raftery, PhD 206-543-4505 <a href="mailto:draftery@uw.edu">draftery@uw.edu</a>
Molecular Design and Therapeutics	<ul style="list-style-type: none"> <li>Novel Biologics</li> <li>Protein Engineering and Expression</li> </ul>	Colin Correnti 206-667-4172 <a href="mailto:proteinsciences@fredhutch.org">proteinsciences@fredhutch.org</a>
Molecular Epidemiology	<ul style="list-style-type: none"> <li>DNA extraction</li> <li>BRAF/KRAS testing</li> </ul>	Sushma Thomas 206-667-2548 <a href="mailto:ssstomas@fredhutch.org">sstomas@fredhutch.org</a>
Molecular Oncology	<ul style="list-style-type: none"> <li>Clinical DNA assays</li> <li>Mutational Analysis</li> </ul>	Jill Harrell 206-667-2592 <a href="mailto:jthomps@fredhutch.org">jthomps@fredhutch.org</a>

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<b>NWBioTrust</b>	<ul style="list-style-type: none"> <li>Annotated Research Biospecimens</li> <li>Biospecimen Acquisition &amp; Distribution</li> <li>Virtual Biospecimen Discovery Database</li> </ul>	Sarah Bowell 206-221-6096 <a href="mailto:nwbt@uw.edu">nwbt@uw.edu</a>
<b>Nutrition Assessment</b>	<ul style="list-style-type: none"> <li>Dietary Assessment</li> <li>Dietary Data Collection and Management</li> </ul>	Carolyn Ehret, MS, RD 206-667-4161 <a href="mailto:nasr@fredhutch.org">nasr@fredhutch.org</a>
<b>Prevention Center</b>	<ul style="list-style-type: none"> <li>Exercise Studies</li> <li>Feeding Studies</li> <li>Research Clinic</li> </ul>	Tara Ohrazda 206-667-4639 <a href="mailto:prevcent@fredhutch.org">prevcent@fredhutch.org</a>
<b>Process Development</b>	<ul style="list-style-type: none"> <li>Process Development and Optimization for the Manufacture of Cell Therapy Products</li> <li>Technical Support for Existing Processes to Improve Quality and Efficiency</li> </ul>	Chris Garbe (interim) 206-667-7541 <a href="mailto:cgarbe@fredhutch.org">cgarbe@fredhutch.org</a>
<b>Proteomics</b>	<ul style="list-style-type: none"> <li>Mass Spectrometry</li> <li>Protein Identification/Characterization</li> <li>Quantitative Proteomics</li> </ul>	Phil Galken, PhD 206-667-1051 <a href="mailto:proteomics@fredhutch.org">proteomics@fredhutch.org</a>
<b>Quality Assurance</b>	<ul style="list-style-type: none"> <li>Approval and Final Release of Immunotherapy Products for Clinical Trials</li> <li>GMP Quality System Oversight</li> <li>Review and Approval of all Procedures Related to GMP Manufacturing and Testing</li> </ul>	Stephanie Eaton 206-667-5060 <a href="mailto:seaton2@fredhutch.org">seaton2@fredhutch.org</a>
<b>Quality Control</b>	<ul style="list-style-type: none"> <li>Determine the Acceptability of each Batch for Release GMP Quality Assessment of Materials</li> <li>Product Quality Testing; Laboratory Evaluation to Ensure Adherence to Product Specifications and Limits</li> </ul>	Chris Garbe 206-667-7541 <a href="mailto:cgarbe@fredhutch.org">cgarbe@fredhutch.org</a> Lab: 206-667-7542
<b>Research Freezers</b>	<ul style="list-style-type: none"> <li>Access and Allocation of Space in Shared Freezer Facility</li> <li>Freezer Best Practices</li> <li>Leased Freezer Storage</li> <li>Research Sample Storage</li> </ul>	Debbie Shiozaki 206-667-7520 <a href="mailto:freezers@fredhutch.org">freezers@fredhutch.org</a>
<b>Scientific Imaging</b>	<ul style="list-style-type: none"> <li>3-D Microscopy (Confocal, Deconvolution and Two Photon)</li> <li>Fluorescence and Brightfield Microscopy</li> <li>Gel and Blot Imaging &amp; Quantitative Image Analysis</li> <li>Live Cell and Time Lapse Imaging</li> </ul>	Julio Vazquez, PhD 206-667-4205 <a href="mailto:imaging@fredhutch.org">imaging@fredhutch.org</a>
<b>Specialized Pathology</b>	<ul style="list-style-type: none"> <li>Solid Tumor Pathology Review and Interpretation</li> <li>Tissue Microarray Construction &amp; Imaging</li> </ul>	Elizabeth Donato 206-667-4501 <a href="mailto:edonato@fredhutch.org">edonato@fredhutch.org</a>
<b>Specimen Processing/Research Cell Bank</b>	<ul style="list-style-type: none"> <li>DNA Extraction</li> <li>Specimen Processing</li> <li>Biorepository</li> <li>Cell Banking and Cell Processing</li> </ul>	Jon Digel 206-667-4645 <a href="mailto:processing@fredhutch.org">processing@fredhutch.org</a>
<b>Translational Bioimaging Center</b>	<ul style="list-style-type: none"> <li>Consultation for the Effective Use of Imaging for Specific Research Projects</li> <li>Small Animal MRI &amp; Ultrasound</li> <li>Small Animal Optical Imaging</li> <li>Training and Education in Imaging Research</li> </ul>	Robert Miyaoka, PhD 206-543-2084 <a href="mailto:rmiyaoka@uw.edu">rmiyaoka@uw.edu</a> Rajesh Uthamanthil, DVM, PhD 206-667-5313 <a href="mailto:ruthaman@fredhutch.org">ruthaman@fredhutch.org</a>
<b>Therapeutic Products Program</b>	<ul style="list-style-type: none"> <li>Alliance Management</li> <li>Biologics</li> <li>Cell Processing</li> <li>Process Development</li> <li>Quality Assurance</li> <li>Quality Control</li> </ul>	James Adams 206-667-6131 <a href="mailto:jbadams@fredhutch.org">jbadams@fredhutch.org</a>