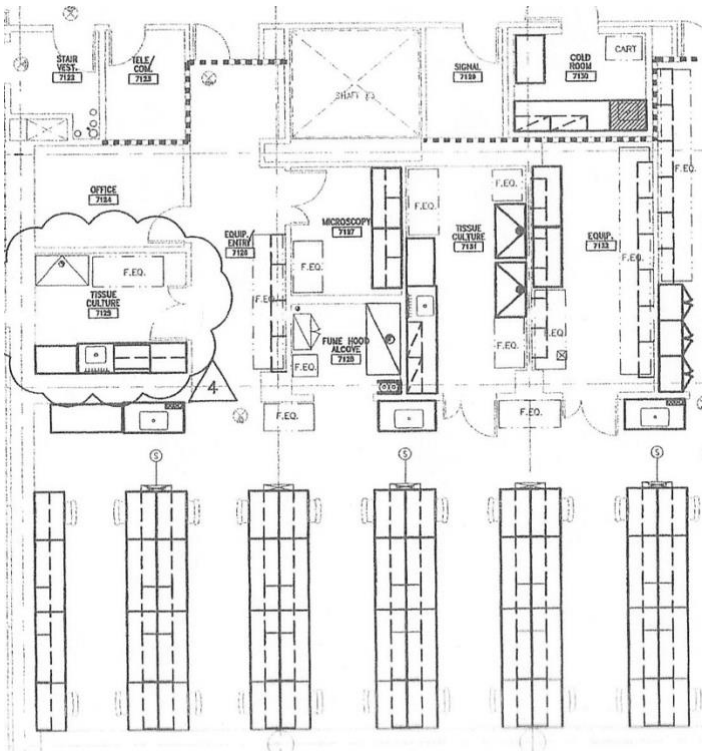
Immune Monitoring

Laboratory: The Beckman Center for Immune Monitoring core laboratory ("Immune Monitoring Core lab") at the University of Southern California, Los Angeles, CA, is located on the 7th floor in the Harlyne Norris Cancer Research Building (opened 2007) located on the Health Science Campus.

Features: Dedicated 100-sq ft desk/bench ((4 x 5 ft^2 desk/ 6 x 5 ft^2 bench) x 2) space to sufficiently accommodate 4 personnel (NRT 7517). 100 sq ft tissue culture room for BSL2+ work (NRT 7517C) accommodating one Class II Biological Safety Cabinet, two in-lined CO_2 incubators for cell culture, refrigerator and 4 feet of bench space. 100 sq ft microscope room housing a Zeiss digital microscope, Beckman Coulter five-color FC500 flow cytometer, and BD LSRII flow cytometer. The laboratory has two sinks for laboratory use; deionized water, Milli-Q system water, and ~240 cu ft wooden glassware cabinets. Access on the same floor to a walk-in 4°C cold room, ice machine and dry ice storage.



Adjacent shared space includes the following functional areas with unlimited use: Solution preparation area; bacterial work area, radioactivity use area, Gel Electrophoresis running area; PCR-based assaying areas with dedicated pre-PCR setup space; RNA extraction area, one open-space Class II Biological Safety Cabinet, and a designated 56 sq ft area (NRT 7513F) with fume hood and flammable/corrosives storage; ~150 sq ft tissue culture room (NRT 7513E) for BSL2+ work accommodating three Class II Biological Safety Cabinets, a sink, one benchtop model refrigerated centrifuge, two in-lined CO_2 incubators for cell culture, refrigerator and 6 feet of bench space.

Security for the building includes key-card access only. Internal doors are locked when laboratories are unattended.

Computer: The laboratory has a total of 4 computers which affords ready internet access and connection to the USC Medical Center mainframe computer facility, networked drives and secured and backed-up server systems. Network communications with e-mail and data transfer are in place. Also available are 1 scanner, 2 printers, 1 fax machine. Access to a photocopier on the same floor. Researchers have access to any software needed to execute their research. All networked computers have unlimited access to online journals and medical databases through the USC Norris medical library and institutional subscriptions. Computer systems are supported by the Keck School of Medicine Information Technology department with appropriate firewall and anti-virus software.

Equipment:

Core equipment

- *2 class II biological safety cabinets*
- *2 CO_2 incubators, bacterial incubator*
- *1 Beckman Allegra 6KR centrifuge*
- *1 Beckman Allegra X-22R centrifuge*

- *1 table-top refrigerated/non-refrigerated centrifuge*
- *Tabletop microfuges*
- *Shaking digital waterbaths*
- *2 refrigerators*
- *2 -20°C freezers*
- *-80°C ultralow freezer*
- *Upright and inverted microscopes*
- *Bio-Rad gene pulser*
- *Nucleic acid and protein electrophoresis equipment and power supplies*
- *Applied Biosystems GeneAmp 9700 PCR machine*
- *Applied Biosystems ProFlex PCR machine*
- *Beckman Coulter FC500 flow cytometer*
- *BD LSR2 flow cytometer*
- *Zeiss KS automated ELISPOT counter*
- *Bio-Rad Bio-Plex 200 suspension array system*

Shared equipment:

- *Beckman ultracentrifuges and rotors*
- *Beckman high-speed centrifuges and rotors*
- *Zeiss fluorescent upright and inverted microscope*
- *Nikon confocal microscope*
- *Amaxa nucleofector*
- *Bio-Rad Image Analysis System/Gel Photodocumentation*
- *Bio-Rad CFX96 real time PCR machine*
- *Orbital shakers*
- *TopCount cell harvester and liquid scintillation counter*
- *BD FACSAria cell-sorting system*
- *BD FACS Canto II flow cytometer*
- *Licor Odyssey UV/infrared imager*
- *Nanodrop spectrophotometer*
- *BMG ClarioSTAR Plus multifunction plate reader*
- *Darkroom with film developer*
- *Cryogenic freezer farm with piped in liquid nitrogen*

Flow Cytometry

Laboratory: The Flow Cytometry Facility is located on the 2nd floor in the Eli and Edythe Broad CIRM Center for Regenerative Medicine and Stem Cell Research (opened 2010) on the University of Southern California Health Sciences Campus.

Features: The Flow Cytometry Facility is comprised of ~600ft^2 lab space which houses all the instrumentation and lab bench space. Each cell sorter is housed in an appropriate biosafety cabinet for BSL2+ cell sorting conditions. The laboratory has one sink for laboratory use with access to the building deionized water system. There is also access on the same floor to a walk-in 4°C cold room, ice machine, dry ice, and a flammables cabinet. Security for the building includes key-card access for the main entrance, stair well, and elevator access.

Computer: The Flow Cytometry Facility has a designated analysis area which includes a 20TB RAID data server and three computers for data analysis. With access to the USC secured network, researchers have unlimited access to online journals and medical databases through the USC Norris medical library and institutional subscriptions. Computer systems are supported by the Keck School of Medicine Information Technology department with appropriate firewall and anti-virus software.

Equipment:

- *BD FACSYMPHONY Cell Sorter*

- *BD FACSARIA III Cell Sorter*
- *BD FACSARIA IIu Cell Sorter*
- *BioRad S3e Cell Sorter*
- *Attune NxT Flow Cytometer*
- *20TB RAID Data Server*
- *1 PC computer for data analysis*
- *2 iMac computers for data analysis*
- *5 FlowJo USB keys*
- *1 Networked Color Laser Printer*
- *1 Refrigerator/Freezer for reagent storage*