**Site-Specific Responsibility**  
*For Chemical Hygiene and Safety*  

**OFFICE OF ENVIRONMENTAL HEALTH AND SAFETY**  
**UNIVERSITY OF CALIFORNIA, DAVIS**

<table>
<thead>
<tr>
<th>Department:</th>
<th>Biomedical Engineering: Center for Molecular and Genomic Imaging (CMGI)</th>
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<tbody>
<tr>
<td>Building:</td>
<td>GBSF</td>
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</table>

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**Rooms covered by this plan:**  
0202 GBSF: CMGI Cyclotron  
0302 GBSF: CMGI Radiochemistry QC  
0303 GBSF: CMGI MR Imaging  
0309 GBSF: CMGI Nuclear Imaging  
0310 GBSF: CMGI Optical Imaging  
0311 GBSF: CMGI Radiochemistry  
0662 GBSF: CMGI Procedure Room

**Implementation Date:** 04/15/14  
**Annual Review Date:** November
Site-Specific Information on Chemical Receiving, Storing, or Dispensing

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Give the location of your laboratory’s chemical receiving, storage, or dispensing areas. Describe any ordering policies or procedures for hazardous chemicals. List any chemicals that require prior Principal Investigator approval for purchase.

Receiving: Chemicals are received at the GBSF Receiving facility, and distributed to 2303 GBSF for pickup and documentation of receipt.

Laboratory personnel are encouraged to initial and date the container on receipt and on opening.

Ordering: All orders require approval by supervisory personnel.

Restricted chemicals: All orders of restricted chemicals are processed and documented by the University according to applicable regulations.

Storage/dispensing: Vented storage cabinets for flammable chemicals and corrosives/acids are located in 0302 GBSF. Drugs subject to restricted access and inventory logs are stored in a locked cabinet in 0310 GBSF. Radioactive materials are stored behind shielding, dispensed only by trained, authorized personnel, and logged as specified by EH&S Health Physics.

Chemical Inventory: A chemical inventory is maintained and updated at University-required intervals using the University inventory system.
MSDS and Other Reference Materials
Available in the Laboratory

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Describe how and where MSDSs and other reference materials are available in this laboratory. (See the Bibliography for a list of recommended references.)

The general-use computer in the CMGI lobby (opposite the cubicle office area) has a link to Safety Data Sheets (formerly MSDSs), displayed on the computer desktop.

In addition, any internet-linked computer in the Facility or personal smart phones may be used to access SDSs via the EH&S-recommended references, chemical manufacturer website, or internet search.

For UC Davis Safety Services SDS links and information, go to:
http://safetyservices.ucdavis.edu/ps/cls/msds
Emergency Response Instructions

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GENERAL PROCEDURES:
The following are some general instructions for actions to take in case of an emergency:

**Medical Emergency**
1. Remain calm.
2. Initiate lifesaving measures if required.
3. Call for Emergency Response --- CALL 911
4. Do not move injured person unless it is necessary to prevent further harm.
5. Keep injured person warm.

**Major Incident**
1. Attend to injured or contaminated person and remove him or her from exposure.
2. Alert people to evacuate the area.
3. Call for Emergency Response --- CALL 911
   - Fire....................................................... 911
   - Chemical, radiation, biological spill .......... 911
   - (Evenings and weekends) ......................... 911
4. Close doors to affected areas.
5. Have person knowledgeable of incident assist emergency workers.

LABORATORY-SPECIFIC PROCEDURES:
The following are specific instructions for actions to take during an emergency situation in your laboratory.

In the event of an emergency, suspend all laboratory activities.
Refer to laboratory-specific animal protocols regarding steps to be taken when working with animals in the laboratory.
Refer to RUA 1517 SOPs to respond to high radiation fields. If you know or suspect a sustained field >10 mR/h, evacuate the affected area and do not return until field has returned to a safe level. Alert EH&S Health Physics for advice and assistance if needed.
Radioactive splashes, spills, and decontamination: refer to UCD Safety Net #37. Alert EH&S Health Physics for advice and assistance if needed.

EMERGENCY EQUIPMENT LOCATIONS

<table>
<thead>
<tr>
<th>Equipment</th>
<th>Location</th>
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<tbody>
<tr>
<td>Emergency Showers</td>
<td>(1) East corridor near exit; (2) Room 0302</td>
</tr>
<tr>
<td>Emergency Eyewashes</td>
<td>(1) Room 0302; (2) Room 0311</td>
</tr>
<tr>
<td>Fire Extinguisher</td>
<td>North corridor</td>
</tr>
<tr>
<td>Spill kits</td>
<td>(1) Room 0302; (2) Room 0311</td>
</tr>
</tbody>
</table>
List hazardous material control systems (e.g., fume hoods) available in the laboratory. Include information on restrictions, special precautions or procedures, preventive maintenance schedules, and any other information relevant to safe operation in the laboratory.

Chemical fume hood, room 0302 GBSF
- Training is required for proper use and applications of the fume hood.
- The chemical fume hood will be used, if required, when working with hazardous chemicals in the laboratory. Examples include volatile, flammable, and highly acidic chemicals.
- Avoid overcrowding the fume hood during active use.
- The fume hood is certified annually by TSS under contract with the University.

Biological Safety Cabinet, room 0662 GBSF
- Training is required for proper use and applications of the biosafety cabinet.
- The biosafety cabinet will be used, if required, when working with biohazardous materials in the laboratory.
- The biosafety cabinet is certified annually by TSS under contract with the University.

Radiochemistry hot cells and manipulators, room 0311 GBSF
- CMGI radiation safety training is required for proper use and applications of the hot cells and manipulators.
- The hot cells and manipulators will be used, when applicable, when performing radioactive chemical synthesis and high-activity experiments in the radiochemistry laboratory.
- Hot cells are continuously monitored for exhaust. Preventive maintenance and repairs of hot cells and manipulators are performed by qualified CMGI staff or contractors.

Secondary containment
- Secondary containment of hazardous chemicals and hazardous chemical waste will be used when there is a possibility of leakage or overflow.
**Personal Protective Equipment**  
*Available in the Laboratory*  

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List the personal protective equipment available in the laboratory and when it should be used. See Chapter V for additional information.

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<th>Personal Protective Equipment</th>
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<tr>
<td>Eye Protection</td>
<td>Eye protection is provided to staff and guests of CMGI, based on a risk assessment, when there is hazardous activity taking place in the laboratory.</td>
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<tr>
<td>Gloves</td>
<td>Appropriate laboratory gloves are available, based on a risk assessment of the hazardous activity taking place in the laboratory.</td>
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<tr>
<td>Other Protective Clothing</td>
<td>Laboratory coats (e.g., white cotton, barrier, flame resistant, and aprons) are provided to staff and guests of CMGI, based on a risk assessment of the hazardous activity taking place in the laboratory.</td>
</tr>
<tr>
<td>Respiratory Protection</td>
<td>Respirators can be provided to staff and guests of CMGI, based on a risk assessment of the activity taking place in the laboratory. Laboratory workers will be required to complete the respiratory protection medical evaluation, fit testing, and training through Employee Health Services before wearing a respirator in the laboratory.</td>
</tr>
<tr>
<td>Other</td>
<td>Hearing protection can be provided to staff and guests of CMGI, based on a risk assessment of the activity taking place in the laboratory.</td>
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Clients working in the CMGI facility will be trained in task-appropriate PPE, and CMGI will make reasonable efforts to monitor and advise clients on the appropriate use of PPE. However, PPE supply, maintenance, and compliance are the responsibility of client PIs.
Prior Approvals Required

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List prior approvals required for particular laboratory functions. The Principal Investigator or Laboratory Supervisor will determine which laboratory operations, if any, will require prior approval.

CMGI Client Users:
CMGI checklist training signed by the trainee is used to assure proper performance of laboratory functions.

- CMGI Safety Training is required for all client users before they may access or work in the facility. General safety procedures are reviewed, and in the checklist, the trainee attests to completing applicable task-appropriate University requirements (e.g., Radiation Safety training, enrollment in the Occupational Health Program, Biosafety Cabinet training, etc.).

- CMGI Radiation Safety Training is additional training required for users of the radiochemistry laboratory (Room 0311). Topics include chemical receipt, RUA compliance specifications, radiation monitoring and emergency response, and other site-specific and task-specific procedures.

- On both training documents, the trainee attests to the following by signature: “I understand that it is my responsibility to talk with a supervisor should I be unsure about the safety of any procedure or should I need further information or advice regarding potential hazards.”

Equipment-specific training is sometimes provided by the manufacturer to groups, but is usually provided on as-needed individual basis. CMGI staff will reserve equipment for use only by fully trained client users.

CMGI Staff:
CMGI staff meet the same requirements to perform specific lab functions as described above for client users, plus a complete skills checklist supported by training documentation is maintained for staff. Some laboratory functions are reserved exclusively for staff. For example, the requirements for certification as a Cyclotron Operator include 80 hours of training and annual recertification review, as specified in the University Broadscope License and CMGI’s RUA.