**RADIATION SAFETY AND EMERGENCY PROCEDURES**

**FOR RADIOACTIVE MATERIALS**

1. **EMERGENCIES — Notify Radiation Safety Officer of all emergencies immediately at 628-777-6888** 
   1. Emergencies include suspected area and personnel contamination, abnormal personnel exposure, loss of radioactive material. If minor area contamination occurs, follow the decontamination procedures in the UCSF Radiation Safety Manual.
   2. In case of injury involving a contaminated person, take needed lifesaving steps and immediately call 9-911 and notify the Radiation Safety Office. Do not attempt decontamination.
   3. In case of major area contamination, contain spill by placing absorbent materials over contaminated area, restrict access to the affected area, and notify the Radiation Safety Officer before attempting decontamination.
2. **PROCUREMENT AND SHIPMENT**  
   All incoming and outgoing radioisotope shipments shall be processed through an authorized receiving location.

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| Long Hospital L235G  at Parnassus Campus | Cancer Research Building N132  at Mt Zion Campus | Genentech Hall N121  at Mission Bay Campus | Gateway Building M1321D  at Mission Bay Hospital |

For Patients Only:

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| Suite 122 at Cardiovascular Research Institute | Suite 180, Lobby 6 at China Basin |

1. **AUTHORIZED APPLICANT RESPONSIBILITY**  
   Each Principal Investigator (P.I.) is responsible for ensuring that every employee or student who works with ionizing radiation is fully instructed in all necessary precautions to be taken to protect himself and others, and must be familiar with all pertinent sections of the UCSF Radiation Safety Manual.
2. **GENERAL SAFETY PRECAUTIONS** 
   1. Experiments shall be carefully designed in detail before radioactive materials are used. When indicated, dry runs using non-radioactive materials shall be conducted.
   2. Disposable gloves, eye protection and a lab coat shall be worn during experiments involving radioisotopes.
   3. When assigned, personnel dosimetry shall be worn.
   4. Mouth pipetting is prohibited. Use a mechanical pipette.
   5. Working area shall be confined to a small area, covered with vinyl backed absorbent paper. Survey the immediate working area for contamination before, during, and after experiments; and maintain good housekeeping.
   6. No smoking, drinking, eating or application of cosmetics is allowed where radioactive material, chemicals or biohazardous material is used.
   7. All volatile or potentially airborne materials shall be used or stored in an approved fume hood, a glove box, or suitable enclosure which shall have adequate ventilation.
   8. Radioactive material shall be stored so as to prevent unauthorized removal and shielded to less than 2 mR/hr at the surface of the shield.
   9. All changes in RUA must be approved by the Radiation Safety Office.
   10. Current radioisotope inventory shall be maintained.
   11. Work areas and each container in which radioactive material is transported, stored, or used, must have the standard caution label bearing the words, "Caution Radioactive Materials".
   12. All personnel must comply with bioassay requirements.
3. **ADMINISTRATION TO ANIMALS** 
   1. Principal Investigators (P.I.'s) are responsible for notifying the Committee on Animal Research of intent to administer radioactive materials to animals and must advise the Director of the Laboratory Animal Resource Center of potential hazards.
   2. Animals given radioactive materials must be caged separately from other animals.
   3. Cages must be labelled with appropriate radiation signs and contain information as to the isotope, the quantity, date of administration and the name of the researcher and P.I. A copy of "Animal Involvement Form" must be posted.
   4. If respiration, excreta, or shaving are to become radioactive, consult with Radiation Safety to minimize contamination of surrounding areas.
   5. Principal Investigators are encouraged to have their laboratory personnel care for animals given radioactive materials.
   6. Principal Investigators must request Radiation Safety to check for contamination prior to returning animal cages to the Vivarium general wash room. Otherwise it shall be the responsibility of the laboratory personnel.
4. **WASTE DISPOSAL** 
   1. Radioactive wastes shall not be disposed of by the laboratory personnel via the sewerage system or normal solid waste collection systems. Request disposal of radioactive materials through RIO.
   2. No radioactive waste will be accepted by EH&S staff unless properly packaged and identified as to type, amount of isotope, the volume, and Principal Investigator's name.
   3. Exempt or regulated liquid scintillation vials must not contain activity exceeding 0.05 µCi/mL. Refer to the Radiation Safety Manual for further information.
   4. Arrangements for collection and disposal of radioactive waste which has unique quantities, unusual physical condition, pathogens, or chemical formulation (i.e., toxic explosive, volatile, etc.) shall be made with the Radiation Safety Officer in advance of the generation of such waste.
   5. No lead pigs shall be disposed of in the radioactive waste. Lead must be segregated from other waste and disposed of as hazardous waste through EH&S.
   6. Sharps must be segregated in sharps container.