UCDAVIS

ENGINEERING: BIOMEDICAL

INJURY AND ILLNESS PREVENTION PROGRAM

UC DAVIS

ENGINEERING: BIOMEDICAL

INJURY AND ILLNESS PREVENTION PROGRAM

This Injury and Illness Prevention Program has been prepared by the University of California, ENGINEERING: BIOMEDICAL department in accordance with University Policy (UCD Policy & Procedure Manual Section 290-15: Safety Management Program) and California Code of Regulations Title 8, Section 3203 (8 CCR, Section 3203).

UC DAVIS

ENGINEERING: BIOMEDICAL

INJURY AND ILLNESS PREVENTION PROGRAM

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APPENDICES

Department Information

Department Name: **ENGINEERING: BIOMEDICAL**

Department Director: **Steven George**

Address: **GBSF 2303 451 Health Sciences Dr. Davis, CA 95616**

Telephone Number: **530-752-8513**

Buildings Occupied by Department

1. **Building:** **Genome and Biomedical Sciences Facility**

   Unit(s): **Basement, 1st, 2nd and 3rd Floor**

   Contact: **Julie Hirota**

   Contact Phone: **530-752-9051**

2. **Building:** **Ghausi Hall**

   Unit(s): **2nd and 3rd Floor**

   Contact: **Julie Hirota**

   Contact Phone: **530-752-9051**

3. **Building:** **Academic Surge**

   Unit(s): **2nd Floor**

   Contact: **Julie Hirota**

   Contact Phone: **530-752-9051**

4. **Building:** **Tupper Hall**

   Unit(s): **Multiple Floors**

   Contact: **Julie Hirota**

   Phone: **530-752-9051**

I. Authorities and Responsible Parties

The authority and responsibility for the implementation and maintenance of the Injury and Illness Prevention Program (IIPP) is in accordance with University Policy (UCD Policy & Procedure Manual Section 290-15: Safety Management Program) and California Code of Regulations (8 CCR, Section 3203) and is held by the following individuals:

1. Name: **Steven George**

   Title: **Professor & Department Chair**

   Authority: Authority and responsibility for ensuring implementation of this IIPP

   Signature: DocuSigned by: Steven George 8AD1D1825D93402... Date: 12/11/2019

2. Name: **Randy Carney**

   Title: **Chair of Departmental Safety Committee**

   Authority: Department designated authority for implementation of this IIPP

   Signature: DocuSigned by: Randy Carney 5ACD93C9F032428... Date: 12/6/2019

All Principal Investigators and supervisors are responsible for the implementation and enforcement of this IIPP in their areas of responsibility in accordance with University Policy (UCD Policy & Procedure Manual Section 290-15: Safety Management Program).

Annual Review Documentation

Responsible/Designated Authority	Signature	Date
Randy Carney (Dept Safety Committee Chair)	***Signature on file***	**December 2019**

II. System of Communications

1. Effective communications with **ENGINEERING: BIOMEDICAL** employees have been established using the following methods:

   Standard Operating Procedures Manual
   Safety Data Sheets
   Monthly departmental operations meetings
   EH S Safety Nets
   Safety Newsletter
   Handouts
   Building Evacuation Plan
   E-mail
   Posters and warning labels
   Job Safety Analysis - Initial Hire
   Job Safety Analysis - Annual Review
   Departmental Faculty meetings, regular staff meetings and research group meetings for each faculty member

2. Employees are encouraged to report any potential health and safety hazard that may exist in the workplace. **Hazard Alert/Correction Forms (Appendix A)** are available to employees for this purpose. Forms are to be placed in the Safety Coordinator's departmental mail box. Employees have the option to remain anonymous when making a report.

3. Employees have been advised of adherence to safe work practices and the proper use of required personal protective equipment. Conformance will be reinforced by discipline for non-compliance in accordance with University policy (UC Davis Personnel Policies for Staff Members- Section 62, Corrective Action).

III. System for Assuring Employee Compliance with Safe Work Practices

Employees have been advised of adherence to safe work practices and the proper use of required personal protective equipment. Conformance will be reinforced by discipline for non-compliance in accordance with University policy (UC Davis Personnel Policies for Staff Members- Section 62, Corrective Action).

The following methods are used to reinforce conformance with this program:

1. Distribution of Policies

2. Training Programs

3. Safety Performance Evaluations

   Performance evaluations at all levels must include an assessment of the individual's commitment to and performance of the accident prevention requirements of his/her position. The following are examples of factors considered when evaluating an employee's safety performance.

   - Adherence to defined safety practices.
   - Use of provided safety equipment.
   - Reporting unsafe acts, conditions, and equipment.
   - Offering suggestions for solutions to safety problems.
   - Planning work to include checking safety of equipment and procedures before starting.
   - Early reporting of illness or injury that may arise as a result of the job.
   - Providing support to safety programs.

4. Statement of non-compliance will be placed in performance evaluations if employee neglects to follow proper safety procedures, and documented records are on file that clearly indicate training was provided for the specific topic, and that the employee understood the training and potential hazards.

5. Corrective action for non-compliance will take place when documentation exists that proper training was provided, the employee understood the training, and the employee knowingly neglected to follow proper safety procedures. Corrective action includes, but is not limited to, the following: Letter of Warning, Suspension, or Dismissal.

IV. Hazard Identification, Evaluation, and Inspection

Job Hazard Analyses and worksite inspections have been established to identify and evaluate occupational safety and health hazards.

1. Job Safety Analysis:

Job Safety Analysis (JSA) identifies and evaluates employee work functions, potential health or injury hazards, and specifies appropriate safe practices, personal protective equipment, and tools/equipment. JSA's can be completed for worksites, an individual employee's job description, or a class of employees' job description. Completed JSA's are located in **Appendix B**.

The following resources are available for assistance in completing JSA's:

- Laboratory personnel, please refer to the Laboratory Hazard Assessment Tool
- Non-Laboratory personnel, please refer to the JSA/PPE Certification Forms

2. Worksite Inspections

Worksite inspections are conducted to identify and evaluate potential hazards. Types of worksite inspections include both periodic scheduled worksite inspections as well as those required for accident investigations, injury and illness cases, and unusual occurrences. Inspections are conducted at the following worksites:

1) Location: **Genome and Biomedical Sciences Facility**
Frequency: **Annual**
Responsible Person: **Elizabeth Ingham**
Records Location: **GBSF, Room 2303**

2) Location: **Ghausi Hall**
Frequency: **Annual**
Responsible Person: **Elizabeth Ingham**
Records Location: **GBSF, Room 2303**

3) Location: **Academic Surge**
Frequency: **Annual**
Responsible Person: **Elizabeth Ingham**
Records Location: **GBSF, Room 2303**

4) Location: **Tupper Hall**
Frequency: **Annual**
Responsible Person: **Elizabeth Ingham**
Records Location: **GBSF, Room 2303**

Worksite Inspection Forms are located in **Appendix C** (C1 - General Office and C2 - Laboratory).

V. Accident Investigation

University Policy requires that work-related injuries and illnesses be reported to Workers' Compensation within 24 hours of occurrence and state regulation requires all accidents be investigated.

ENGINEERING: BIOMEDICAL employees will immediately notify their supervisor when occupationally-related injuries and illnesses occur, or when employees first become aware of such problems.

1. **Supervisors** will investigate all accidents, injuries, occupational illnesses, and near-miss incidents to identify the causal factors or attendant hazards. Appropriate repairs or procedural changes will be implemented promptly to mitigate the hazards implicated in these events. Proper injury reporting procedures can be found at http://safetyservices.ucdavis.edu/article/injury-reporting-procedure.

   The **Injury and Illness Investigation Form (Appendix D)** shall be completed to record pertinent information and a copy retained to serve as documentation. It can be completed by either the supervisor or the Department Safety Coordinator.

3. **Note:** Serious occupational injuries, illnesses, or exposures must be reported to Cal/OSHA by an EH&S representative **within eight hours** after they have become known to the supervisor. These include injuries/illnesses/exposures that cause permanent disfigurement or require hospitalization for a period in excess of 24 hours. Please refer to EH&S SafetyNet #121 for OSHA notification instructions.

VI. Hazard Correction

Hazards discovered either as a result of a scheduled periodic inspection or during normal operations must be corrected by the supervisor in control of the work area, or by cooperation between the department in control of the work area and the supervisor of the employees working in that area. Supervisors of affected employees are expected to correct unsafe conditions as quickly as possible after discovery of a hazard, based on the severity of the hazard.

Specific procedures that can be used to correct hazards include, but are not limited to, the following:

- Tagging unsafe equipment "Do Not Use Until Repaired," and providing a list of alternatives for employees to use until the equipment is repaired.
- Stopping unsafe work practices and providing retraining on proper procedures before work resumes.
- Reinforcing and explaining the need for proper personal protective equipment and ensuring its availability.
- Barricading areas that have chemical spills or other hazards and reporting the hazardous conditions to appropriate parties.

Supervisors should use the **Hazard Alert/Correction Report (Appendix A)** to document corrective actions, including projected and actual completion dates.

If an imminent hazard exists, work in the area must cease, and the appropriate supervisor must be contacted immediately. If the hazard cannot be immediately corrected without endangering employees or property, all personnel need to leave the area except those qualified and necessary to correct the condition. These qualified individuals will be equipped with necessary safeguards before addressing the situation.

VII. Health and Safety Training

Health and safety training, covering both general work practices and job-specific hazard training is the responsibility of **Steven George** and immediate Supervisor(s) as applicable to the following criteria:

1. Supervisors are provided with training to become familiar with the safety and health hazards to which employees under their immediate direction and control may be exposed.

2. All new employees receive training prior to engaging in responsibilities that pose potential hazard(s).

3. All employees given new job assignments receive training on the hazards of their new responsibilities prior to actually assuming those responsibilities.

4. Training is provided whenever new substances, processes, procedures or equipment (which represent a new hazard) are introduced to the workplace.

5. Whenever the employer is made aware of a new or previously unrecognized hazard, training is provided.

The **Safety Training Attendance Record** form is located in **Appendix E**.

VIII. Recordkeeping and Documentation

Documents related to the IIPP are maintained in/at/on:

GBSF 2303.

The following documents will be maintained within the department's IIPP Binder for at least the length of time indicated below:

1. Hazard Alert/Correction Forms (Appendix A form).
   Retain for three (3) years.

2. Employee Job Safety Analysis forms (Appendix B form)
   Retain for the duration of each individual's employment.

3. Worksite Inspection Forms (Appendix C form).
   Retain for three (3) years.

4. Injury and Illness Investigation Forms (Appendix D form).
   Retain for three (3) years.

The following documents will be maintained within the department's IIPP Training Records Binder for at least the length of time indicated below:

1. Employee Safety Training Attendance Records (Appendix E form).
   Retain for three (3) years.

IX. Resources

1. UC Office of the President: Management of Health, Safety and the Environment, 10/28/05
2. UC Davis Policy and Procedure Manual, Section 290-15, Safety Management Program
3. California Code of Regulations Title 8, Section 3203, (8CCR §3203), Injury and Illness Prevention Program
4. Personnel Policies for Staff Members, Corrective Action, UC PPSM 62
5. UC Davis Environmental Health & Safety
    - Safety Services Website
    - EH&S SafetyNets
    - Safety Data Sheets

X. Completed Tasks

☒JSAs reviewed
☒ Annual Worksite Inspections
☒ IIPP Reviewed
☒ Training Completed

HAZARD ALERT / CORRECTION FORM

Alert Identification No. _ _ _ _ _
Department: _____

I. Unsafe Condition or Hazard

Name: (optional) _____ Job: _____

Title: (optional) _____

Location of Hazard: _____

Building: _____ Floor: _____ Room: _____

Date and time the condition or hazard was observed:

_____

Description of unsafe condition or hazard: _____

_____

_____

What changes would you recommend to correct the condition or hazard?

_____

_____

Employee Signature: (optional) _____

Date:

II. Management/Safety Committee Investigation

Name of person investigating unsafe condition or hazard:

_____

Results of investigation (What was found? Was condition unsafe or a hazard?): (Attach additional sheets if necessary.)

_____

_____

_____

_____

Proposed action to be taken to correct hazard or unsafe condition: (Complete and attach a Hazard Correction Report, IIPP Appendix E)

_____

_____

_____

Signature of Investigating Party: _____

Date:

Completed copies of this form should be routed to the appropriate supervisor and department Safety Coordinator, and must be maintained in department files for at least three years.

HAZARD ALERT / CORRECTION REPORT

Alert Identification No. __ __ __ __ __

Department:_____

This form should be used in conjunction with the "Hazard Alert Form" (IIPP Appendix A), as appropriate, to track the correction of identified hazards.

All hazards should be corrected as soon as possible, based on the severity of the hazard. If a serious imminent hazard cannot be immediately corrected, evacuate personnel from the area and restrict access until the hazard can be addressed.

Supervisor/Safety Coordinator Name:_____ Telephone: _____

Supervisor/Safety Coordinator Signature:_____ Date: _____

Description and Location of Unsafe Condition	Date Discovered	Required Action and Responsible Party	Completion Date	
			Projected	Actual

Completed copies of this form should be routed to the department Safety Coordinator and kept in department files for at least three years.

WORKSITE INSPECTION FORM

General Office Environment

Location: _____ Date: _____

Inspector: _____ Phone: _____

Department: _____

Administration and Training

Yes J No J NA J	1.	Are all safety records maintained in a centralized file for easy access? Are they current?
Yes J No J NA J	2.	Have all employees attended Injury & Illness Prevention Program training? If not, what percentage has attended?
Yes J No J NA J	3.	Does the department have a completed Emergency Action Plan? Are employees being trained on its contents?
Yes J No J NA J	4.	Are chemical products used in the office being purchased in small quantities? Are Material Safety Data Sheets needed?
Yes J No J NA J	5.	Are the Cal/OSHA information poster, Workers' Compensation bulletin, annual accident summary posted?
Yes J No J NA J	6.	Are annual workplace inspections performed and documented?

General Safety

Yes J No J NA J	7.	Are exits, fire alarms, pullboxes clearly marked and unobstructed?
Yes J No J NA J	8.	Are aisles and corridors unobstructed to allow unimpeded evacuations?
Yes J No J NA J	9.	Is a clearly identified, unobstructed, charged, currently inspected and tagged, wall-mounted fire extinguisher available as required by the Fire Department?
Yes J No J NA J	10.	Are ergonomic issues being addressed for employees using computers or at risk of repetitive motion injuries?
Yes J No J NA J	11.	Is a fully stocked first-aid kit available? Is the location known to all employees in the area?
Yes J No J NA J	12.	Are cabinets, shelves, and furniture over five feet tall secured to prevent toppling during earthquakes?
Yes J No J NA J	13.	Are books and heavy items and equipment stored on low shelves and secured to prevent them from falling on people during earthquakes?
Yes J No J NA J	14.	Is the office kept clean of trash and recyclables promptly removed?

Electrical Safety

Yes D No D NA D	15.	Are plugs, cords, electrical panels, and receptacles in good condition? No exposed conductors or broken insulation?
Yes D No D NA D	16.	Are circuit breaker panels accessible and labeled?
Yes D No D NA D	17.	Are surge protectors being used? If so, they must be equipped with an automatic circuit breaker, have cords no longer than 15 feet in length, and be plugged directly into a wall outlet.
Yes D No D NA D	18.	Is lighting adequate throughout the work environment?
Yes D No D NA D	19.	Are extension cords being used correctly? They must not run through walls, doors, ceiling, or present a trip hazard.
Yes D No D NA D	20.	Are portable electric heaters being used? If so, they must be UL listed, plugged directly into a wall outlet, and located away from combustible materials.

Completed copies of this form should be routed to the department Safety Coordinator and must be maintained in department files for at least three years.

UC DAVIS
UNIVERSITY OF CALIFORNIA

University of California, Davis
Laboratory Self-Inspection Checklist

Principal Investigator/Laboratory Supervisor: _____

Laboratories Reviewed: _____

Date: _____

Reviewer: _____ Revised 1/2015

I. SAFETY PROGRAM ADMINISTRATON			
A. Chemical Hygiene Plan	Yes	No	N/A
1. Does the laboratory have access to the campus-wide Chemical Hygiene Plan and all of the required elements?			
2. Are there any operations that require prior approval before beginning (e.g.., Radiation Safety, Bio-safety committee)?			
B. Illness and Injury Prevention Plan	Yes	No	N/A
1. Does laboratory have access to Department IIPP and has it been reviewed in past year?			
2. Is there documentation that all laboratory personnel have trained on IIPP?			
C. **Standard Operating Procedures (SOP's)**	Yes	No	N/A
1. Are there written SOP's covering the laboratory processes and hazardous chemicals referenced in Title 8 (*i.e.*, acutely toxic substances, reproductive toxins, and regulated carcinogens)?			
2. Are there exemptions to the written SOPs and are these documented?			
3. Training of laboratory personnel documented.			
4. Required specialized training complete and documented.			
5. Training is current with Chemical Hygiene Plan.			
6. Training is complete on Hazardous waste management.			
7. Training is complete on Blood borne Pathogen requirements.			
II. HAZARDOUS MATERIALS	Yes	No	N/A
1. Laboratory doors are labeled with emergency contact notification names & numbers, hazards present & necessary precautions.			
2. Labels are clean and intact on all chemical containers.			
3. Chemical containers are clearly identified with contents and hazards.			
4. Containers with non-hazardous substances (*i.e.*, water) clearly labeled to avoid confusion.			
A. **Chemical Controls**	Yes	No	N/A

Notes: _____

1. Chemicals are not stored on laboratory benches in excessive quantities.			
2. Expired or chemicals not used (for more than one year) are disposed of as hazardous waste.			
3. Secondary containment is provided for strong acids and strong bases.			
4. Incompatible chemicals are segregated and stored with compatible hazard classes.			
5. All chemical containers are closed, except when actively adding or removing materials from them (*i.e.*, no open funnels left in container).			
6. Containers of peroxide-forming chemicals are dated upon receipt and disposed of as hazardous waste within one year of receipt.			
7. Safety Data Sheets (SDS) and laboratory chemical inventory are up-to-date and readily available.			
8. Chemicals (liquids) are stored below eye level and not directly on the floor, unless in secondary containment.			
9. Dedicated chemical storage (cabinets, refrigerators, freezers) clearly labeled with contents and hazard warnings.			
B. **Flammable & Combustible Liquids**	Yes	No	N/A
1. Flammable liquids stored in 1-gallon or smaller containers or kept in 2-gallon or smaller safety cans.			
2. Flammable liquids (including flammable liquid waste) stored outside of a storage cabinet does not exceed 10 gallons.			
3. If more than 10 gallons of flammable liquids are present does the laboratory have an approved flammable storage cabinet?			
4. Flammable liquids, stored in flammable storage cabinets limited to 60 gallons per fire rated area.			
5. Flammable liquids requiring reduced temperature stored in flammable-rated refrigerator/freezer.			
C. **Particularly Hazardous Substances**	Yes	No	N/A
1. Have all particularly hazardous substances been identified?			
2. Designated area(s) for acutely toxic materials, reproductive toxins and/or carcinogens clearly marked.			
3. Are all users adequately trained? Documentation available?			
4. All necessary PPE (personal protective equipment) available and used as needed.			
D. **Radioactive Materials**	Yes	No	N/A
1. Stock materials of radioactive materials are secured against unauthorized removal?			
2. Do personnel wear lab coats and gloves when handling radioactive materials? If assigned dosimeters, are they wearing them?			

Notes:_____

3. Are all radioactive materials registered with the EH&S Health Physics Program?			
4. Radioactive Waste – Properly labeled, segregated, and shielded?			
III. CHEMICAL WASTE			
A. Storage	Yes	No	N/A
1. Are chemical waste containers properly segregated, sealed with tight-fitting caps and stored with EH&S Hazardous Waste Labels attached?			
2. All hazardous chemical waste is arranged to be picked up by EH&S — not drain disposed or evaporated.			
3. Hazardous chemical waste has been accumulating for less than 270 days. Extremely hazardous waste has been accumulating less than 90 days.			
4. All hazardous chemical waste is secondary contained.			
5. Training for personnel handling hazardous waste is documented?			
6. EH&S is called for waste pick up when containers are full (90% capacity or full line) or have reached their accumulation date threshold.			
7. Waste containers sturdy, compatible with the waste, routinely checked for leaks and kept closed when not actively being filled.			
B. Labeling	Yes	No	N/A
1. All hazardous waste containers have the proper labels with contents and accumulation start date.			
2. The hazardous waste accumulation area is clean with waste containers clearly marked.			
IV. BIOHAZARDOUS WASTE			
A. Storage	Yes	No	N/A
1. Solid bio hazardous waste is bagged in red polyethylene bags as per the Medical Waste Management Plan.			
2. Bio hazardous liquid waste is managed per the Medical Waste Management Plan.			
3. Sharps stored in puncture-proof containers and labeled appropriately, not past fill line.			
B. Labeling	Yes	No	N/A
1. Secondary containers for laboratory medical waste storage or transport labeled with the international biohazard symbol and the word "Biohazard."			
V. PERSONAL HEALTH AND SAFETY			
A. Food and Drink	Yes	No	N/A
1. Sinks labeled "Industrial Water – Do Not Drink".			
2. Food and drink is not permitted in laboratories.			
3. Food and drink is stored only in refrigerators/freezers dedicated and labeled "for food only".			

Notes:_____

B. **Standard Practices**	Yes	No	N/A
1. Employees wash areas of exposed skin prior to leaving the laboratory.			
2. Sink is available and hands washed after removing gloves and before leaving laboratory.			
3. Cosmetic applications, taking medication, touching eyes, nose or mouth avoided in laboratory.			
VI. HEALTH AND SAFETY EQUIPMENT			
A. Safety Showers and Eye Washes	Yes	No	N/A
1. Approved safety showers and eye washes provided within 10 seconds travel time from the work area for immediate use, with no barriers (*i.e.* doors) for use or storage of corrosives.			
2. All eyewashes and showers have unobstructed access.			
3. Units inspected and activated monthly. Annually certification by Facilities Management for proper functioning.			
4. Sign indicating location of safety shower and eye wash unobstructed.			
B. Personal Protective Equipment	Yes	No	N/A
1. Has the correct PPE been selected based on a hazard assessment or SDS recommendation?			
2. PPE required for laboratory work: ( ) Lab Coats, ( ) Safety glasses with side shields/goggles, ( ) Hearing protection, ( ) Face Shield, ( ) Proper foot-wear, ( ) Gloves, ( ) Aprons			
3. All necessary equipment is available, in good condition, and properly used.			
C. Laboratory Fume Hoods	Yes	No	N/A
1. Storage inside of hood is kept to a minimum.			
2. Equipment in use does not interfere with proper functioning of the hood.			
3. All work is done at least 6 inches inside hood.			
4. Front sash is lowered when hood is not in use.			
5. Certified annually by Facilities Management, semi-annually for Title 8 §5209 "listed" Carcinogens.			
6. Hood has continuous flow monitor.			
7. The back ventilation slot is not obstructed.			
8. Drains are protected from hazardous materials entering.			
D. Biological Safety Cabinet	Yes	No	N/A
1. Certified within the last year.			
2. Proper type of hood for work being conducted.			
3. Equipment is properly labeled for the hazard present (radiation, UV,), Manufacturer approved for hazard.			
4. Hood ducted per manufacturer and ASHRAE requirements and meets the bio-safety specifications.			

Notes:_____

E. Compressed Gas Cylinders	Yes	No	N/A
1. Cylinders stored in well protected, well vented and dry locations away from combustible materials.			
2. Flammable gases stored away from oxidizers.			
3. Cylinders are secured to a rigid structural component of the building with non-flammable restraints located 1/3 and 2/3 (preferred) or ½ the height of the cylinder.			
4. Protective caps in place while cylinders are in storage and full/empty tags attached.			
5. Proper regulators are being used and closed when cylinders are not in use.			
F. Housekeeping & Miscellaneous Laboratory Safety	Yes	No	N/A
1. Bench tops clean, organized and environs maintained to eliminate harmful exposures or unsafe conditions.			
2. Supplies stored at minimum of 24 inches from ceiling and off the floor.			
3. Vacuum lines equipped with traps designed specifically to accumulate/filter the hazardous materials being evacuated.			
4. All moving machinery (*i.e.*, vacuum pumps) belts adequately protected by a rigid belt guard or housing.			
5. All sharps disposed properly.			
6. The condition of the broken glass box is adequate and placed out of the way.			
7. Ceiling tiles present and in good condition.			
8. Refrigerators/freezers labeled according to use.			
G. Electrical Safety	Yes	No	N/A
1. High voltage equipment (>600V) labeled, grounded and insulated.			
2. No equipment has damaged or frayed cords.			
3. Extension cords are not connected together.			
4. Power strips used only if they are equipped with circuit breakers.			
5. All equipment is grounded via 3-prong plugs.			
6. Damaged equipment tagged out to prevent use.			
H. General Safety	Yes	No	N/A
1. Cabinets and bookshelves are secured.			
2. Overhead storage is minimized and restrained from falling (i.e., shelf lips, rails).			
3. Heavy equipment is secured or braced from falling.			

I. Respiratory Protection	Yes	No	N/A
1. Use of respiratory protection conforms to UC Davis Policy.			
2. Respirators are inspected monthly and before use.			

Notes:_____

3. The user has been fit tested by the Occupational Health Services.			
4. Cartridges are changed on designated schedule and are the appropriate cartridge for the hazard.			
J. **Laser Safety**	Yes	No	N/A
1. Does the laboratory use any Class 3b or 4 lasers?			
2. Are the lasers registered with EH&S Health Physics Program?			
3. Are the Standard Precautions for lasers prominently posted for each laser?			
4. Are appropriate warning signs and labels posted?			
5. Does the laboratory entrance have a warning light or lighted sign showing when the laser is in use?			
6. Have all workers attended the EH&S Laser Safety course?			
7. Does the laboratory have appropriate laser eyewear?			
K. Non-Ionizing Radiation (NIR) Source	Yes	No	N/A
1. Have proper warning signs been posted?			
L. Emergency Planning & Procedures	Yes	No	N/A
1. Emergency Response Guide and evacuation map visibly posted and current.			
2. Chemical spill kit/cleanup materials available.			
3. Training in spill clean-up procedures provided and documented.			
4. First aid materials kept in adequate supply (in a sanitary and usable condition) and made readily available.			
M. Fire Prevention	Yes	No	N/A
1. Appropriate fire extinguisher mounted, unobstructed, available within 75 feet, in working order and inspected within the last year. A fire extinguisher should be available in a room containing flammable and/or combustible liquids.			
2. Fire extinguisher sign is clearly visible.			
3. 18-inch vertical clearance maintained from sprinkler head (*i.e.*, over shelving).			
4. Are all laboratory doors kept closed? Closure devices in place?			
5. Storage of combustible material is minimized.			
N. Exits	Yes	No	N/A
1. Exits and aisles are clear and free of obstructions in case of emergency.			
2. Exit signs clearly visible.			

Notes:_____

IIPP - Appendix D
January 2016

Please access the h1iury Reporting Procedure page on the Safety Services website.

hUp ://sddyservices.ucdavis.edu/artide/in jury-reporting-procedure

Complete the electronic . .m..p.J. yer's First RepO.,r..!. as soon as practicable.

UCD E1nployer's Report of Occupational Injury or Illness

UNIVERSITY POUCV REQUIRES T!HAT H'IIDUSTRIAL HN.JURYm...ILINESS IBE IR.EPORTED TO VV'OIRKERS' COMPEHSAIION WITHIN 24 HOURS OF OCCUIRRENCE AND STATE REGUUI..I"UONS REQUIRE TIHIAT ALIL ACCIKJIENTS BIE INVESTIGATED.
In the event of a serious injury or hos.pitalization, call Workers' Compen1.ation immediately at (530) 752-7243. This form must be completed in its entirety and mailed or faxed (530) 7 2-3439 to Worker.,,· Compensation. Omi'5.t.ion of information could result in a delay of benefits.

EMPLOYEE MUST COMPLETE THESE SECTIONS:

Employee Name | Employee's UCDavis ID#

Address: | Home Phone: ( )

City/State/Zip: | Sex: DFemale DMale | Date of Birth:

Department/Location: | Employee's Work Phone· ( )

Payroll Title/TC· | Date of Hire· | :nnual Gross Salary

Supervisor's Name: | Supervisor's Work Phone: ( )

Employee ( ) Volunteer ( ) Student-Employee ( ) | ( )hours per day | ( ) days per week | ( ) total weekly hours

Specific Injury/Illness/Exposure: | Body Part(s) affected: | Date of injury/illness:

Location where injury or illness occurred: | Others 1n·ured? DYes DNo

What equipment, materials or chemicals caused the injury/illness? : | Who witnessed this injury?

Explain in detail how the injury occurred Include specific activities..-1:asks performed at the time

Medical Treatment provided by:
__ Employee Health Services Sutter Davis Hospital ER Other: (Provide Name &Phone#) _____
___ Private Physician UC Davis Medical Center _____
First Aid, no medical care needed

Employee Signature | Today's Date

EMPLOYER'S INVESTIGATION AND STATEMENT (EMPLOYER COMPLETES):

After the investigation, explain in detail how the injury/illness occurred and the specific activity being performed·

What was the 1nJury, illness or exposure?

INITIAL CAUSE	CONTRIBUTING FACTORS AND ACTIVITIES		PREVENTIVE ACTIONS
D Struck by or against object (indicate) D Caught in/under/ between D Fall/ Slip /Trip D Material handling or lifting D Repetitive motion D Chemical exposure D Body fluid exposure: _Needle stick _Sharps D Anlmal bite D Other, Explain	Equipment D Equipment failure D Equipment unavailable D Improper equipment or material used for job Personal protective equipment D Notworn D Not readily available D Not adequate for the task D Personal protective equipment failure Tralnlng/E><perlence D Lack of training D Safety training provided, not followed D Newtask for employee or lack of experience Work Area D Work area set up improperly D Inadequate lighting or noise issues D Housekeeping issues D Environmental factors (rain, wind, temo. etc)	D Ventilation issues D Ergonomic factors Employee D Physically not able to do work D Employee fatigue D Unbalanced or poor position or motion D Incorrect procedures used for task D Other unsafe practice Assistance D Difficult to perform task without help D Safety features or devices not readily available D Assistive devices not used D Lack of pollcy/procedure D Anlmal (explain below) D Other (explain) _____ Use addltlonal oaoes as needed	SUPERVISOR WILL: D Develop/revise safety procedures and update IIPP or Chem. Hyg. Plan D Request ergonomic evaluation D Order newequipment D Order new personal protective equipment D Remove equipment from use and repair/replace D Schedule preventive maintenance D Will retrain employee before task is re-assigned. D Perform on-site review of work activity, update job safety analysis. D Reconfigure work area D Communicate corrective actions to others in job category. D Other _____ Preventive actions wlll be completed by: Name_____ Expected date of completion_____

SUPERVISOR'S OR MANAGER'S SIGNATURE: | Date of Investigation:

DEPARTT\IIENT HEAD'S SIGNATURE: | Date:

PLEASE NOTE: COMPLETING THIS FORM IS .t::1.-'ll,AN ADMISSION OF UNIVERSITY LIABILITY 712011 ER. Vl.,C/H/MJB

SAFETY TRAINING ATTENDANCE RECORD

Training Topic: _____ Date: _____
(attach a copy of the training session curriculum)

Instructor: _____ Training Aids: _____

Location: _____ Time: _____

Attendees - Please print and sign your name legibly. Use additional sheets if necessary.

No.	Print Name	Signature/Date
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Completed copies of this form should be routed to the department Safety Coordinator and must be maintained in department files for at least three years.

UC DAVIS HEALTH

EFFECTIVE: 2015	JOB SAFETY ANALYSIS IIPP-Appendix B	DEPARTMENT BIOMEDICAL ENGINEERING	LOCATION GBSF, Ghausi Hall, Academic Surge	JOB TYPE ANIMAL HANDLER
JOB FUNCTION	**POTENTIAL HEALTH OR INJURY HAZARD(S)**	**RISK ASSESSMENT, SAFE WORK PRACTICES, PPE AND ENGINEERING CONTROLS**		
ANIMAL: handling and restraint:	• Mechanical/Physical Injuries from Animals. • Zoonotic Exposures: Zoonotic diseases are infections or infestations shared by humans and animals. Be aware that these diseases may also be transmitted via animal tissues (blood, neural tissue, etc.). • Zoonotic Exposure or Mechanical/Physical Injuries from Animals	• Before beginning work, review the UCD Animal Use and Care website at: http://safetyservices.ucdavis.edu/programs-and-services/animals/main • In the section under Occupational Health, use the "Hazard Analysis Tool" to obtain current information on zoonotic diseases for the species with which you will be working. Also review the information on "Allergy to Animals". • Everyone who has exposure to animals must complete the "Significant Biological Agent or Animal Contact Health Surveillance Questionnaire. " Health care professionals at Occupational Health Services will review the form and make individual recommendations as appropriate. • Training for handling animals can be obtained from the Laboratory Animal Skills Class or from your supervisor. • Do not perform a procedure for which you have not been trained or feel uncomfortable. Ask your supervisor for assistance. • Always keep in mind that animals may bite, scratch or grab (in the case of primates). Maintain a safe distance from them when possible. • When working with species other than primates, the minimum protective clothing requirement is a lab coat, gloves, long pants and closed-toed shoes. • Based on a risk assessment, the laboratory or experimental conditions dictate any other requirements. For instance, if dust or fluid is generated (or if there is a potential for splash), wear a mask and eye protection. • When working with animals wear appropriate PPE. • Closed-toed shoes are to be worn in the lab where hazards are present. • When working with animals, long pants and a lab coat coat with cuffed sleeves (or "sleeves" with an uncuffed lab coat) will help protect against scratches. In some situations, you may be required to wear thick, protective leather gloves. See the Zoonotic Exposure section for more information. • Follow any Standard Operating Procedures (SOP) that your supervisor provides. (If you are working with primates, you may be required to watch a video such as, "Working Safely with Nonhuman Primates" or attend an animal handling training course. Prior to beginning work in a lab, discuss this with your supervisor.) • Immediately report any accident or injury to your supervisor and to Employee Health Services (752-6051). • No food or drink is allowed in the work place that contains hazardous materials of any kind. • Wash hands with an antibacterial soap before exiting animal and lab areas. • Training and enforcement are under the direction of the laboratory's PI.	
	DATE	**SIGNATURE**		

UC DAVIS HEALTH

EFFECTIVE: 2015	JOB SAFETY ANALYSIS IIPP-Appendix B	DEPARTMENT BIOMEDICAL ENGINEERING	LOCATION GBSF, Ghausi Hall, Academic Surge	JOB TYPE ANIMAL HANDLER
JOB FUNCTION	**POTENTIAL HEALTH OR INJURY HAZARD(S)**	**RISK ASSESSMENT, SAFE WORK PRACTICES, PPE AND ENGINEERING CONTROLS**		
PRIMATE: handling and restraint	Nonhuman primates used in the research may be naturally infected with diseases that are transmissible to humans. Examples of natural diseases include enteric bacteria such as Campylobacter, Shigella, Yersinia, or Protozoa such as Giardia. Herpes B virus is endemic to macaques and potentially lethal to humans. Zoonotic exposures are possible from: Animal Exposures as described above, splashes of infectious material (blood, urine, feces) to mucous membranes (open wounds, nose, eyes, or mouth); improper personal hygiene (handwashing); aerosolization of infectious material; contact with contaminated fomites (inanimate objects, like an animal cage, which may be contaminated with disease- producing agents).	• Prior to entering lab corridor, check arms and wrists for cuts and scrapes. Cover cuts and scrapes with a band aid and double glove. • Wear appropriate protective clothing. Cover all bare skin: wear long pants, a lab coat with cuffs or coveralls with wrist cuffs or long-sleeved scrubs shirt with cuffs or any other long-sleeved protection that has a cuff and completely covers the arm and wrist, closed-toed shoes, latex or other similarly protective gloves, splash proof goggles (corrective eyeglasses alone are not acceptable, neither are shop goggles) or a full face shield, and a disposable face mask. Wear two pair of gloves when there is a high risk of exposure. If there is a potential for flying debris, impact resistant spectacles must be worn; having eye protection with the rating "Z8.7" stamped on it ensures that it will provide adequate protection as long as the eyewear is worn properly. When airborne droplets are a hazard, such as when a chair or cage is being cleaned with a hose, hair covering is required. When working with other species, protective clothing to be worn will depend on the situation; wear gear that minimizes exposure to any animal body fluids or tissues (splashes, etc.). • The individual who is working directly with a monkey is responsible for assuring that no other individual comes within 5 feet of that monkey (or 15 feet if the individual is a visitor) without protective clothing. If a monkey is being transported down the hallway in a chair, the person wheeling the monkey must visually check the hall for any other persons not wearing protective clothing. The person wheeling the monkey must issue a verbal warning so that a safe distance is maintained until the monkey has passed through. • After returning a monkeyto its cage, make sure that the primate cage padlock is in its proper place and is locked. • IN THE EVENT OF A PRIMATE-RELATED INJURY OR POSSIBLE ZOONOTIC EXPOSURE, IMMEDIATELY FOLLOW THE INSTRUCTIONS ON THE WOUND TREATMENT PROTOCOL FOR PRIMATE-RELATED INJURIES. • View the video “Working Safely with Nonhuman Primates”, the UCD Animal Care and Use website, and follow all Standard Operating Procedures as required by your Principal Investigator (PI).		
	DATE	**SIGNATURE**		

UC DAVIS HEALTH

EFFECTIVE: 2015	JOB SAFETY ANALYSIS IIPP-Appendix B	DEPARTMENT BIOMEDICAL ENGINEERING	LOCATION GBSF, Ghausi Hall, Academic Surge	JOB TYPE FIELD RESEARCH
JOB FUNCTION	**POTENTIAL HEALTH OR INJURY HAZARD(S)**	**RISK ASSESSMENT, SAFE WORK PRACTICES, PPE & ENGINEERING CONTROLS**		
Field Research	Exposure to sun/weather.	Wear sunscreen. Maintain adequate fluid intake. Wear protective clothing as needed (hat, raincoat, gloves, appropriate footwear). Take cover during a thunderstorm.		
	Access to field sites.	Drive defensively. Avoid driving when tired. Be prepared for delays. Carry adequate food, water, clothing, first aid equipment and tools.		
	Field Activities.	Wear appropriate footgear, especially when traveling through rough or rocky terrain. Obtain appropriate training on equipment use. Travel with another individual when accessing remote locations. Provide supervisor with itinerary prior to trip.		
	Valley Fever: Valley fever is another name for the sometimes deadly infection coccidioidomycosis. It is called Valley Fever because the organism that causes it is commonly found in the soil of the southwestern United States, Mexico, and parts of Central and South America. Valley Fever usually affects the lungs. When it affects other parts of the body, it is called Disseminated Valley Fever. Valley Fever is spread through the air. If soil containing the Valley Fever fungus is disturbed by construction, natural disasters, or wind, the fungus spores get into the air. People can breathe in the spores and get Valley Fever. The disease is not spread from person to person. Anyone can get Valley Fever, but people who engage in activities that disturb the soil are at an increased risk. People with weakened immune systems are at increased risk for disseminated disease.	Persons at risk for Valley Fever should avoid exposure to dust and dry soil in areas where Valley Fever is common.		
	DATE	**SIGNATURE**		

UC DAVIS HEALTH

EFFECTIVE: 2015	JOB SAFETY ANALYSIS IIPP-Appendix B	DEPARTMENT BIOMEDICAL ENGINEERING	LOCATION GBSF, Ghausi Hall, Academic Surge	JOB TYPE CLINICAL LABS
JOB FUNCTION	**POTENTIAL HEALTH OR INJURY HAZARD(S)**	**RISK ASSESSMENT, SAFE WORK PRACTICES, PPE AND ENGINEERING CONTROLS**		
PATIENT LIFTING: Work with patients/human subjects may involve lifting and moving of patients.	Exposure to physical injury from lifting and moving of patients/human subjects.	Avoid unnecessary exposures. Use the lift team, when appropriate. Proper selection and use of equipment to minimize risk of injury. Proper adherence to lifting fundamentals. Participation in facility specific medical clearances may be required.		
INTERACTION WITH PATIENTS WITH AEROSOL TRANSMISSIBLE DISEASES: Work may involve interaction with patients/human subjects with aerosol transmissible diseases.	Exposure to patients/human subjects with aerosol transmissible diseases. Potential for contracting aerosol transmissible diseases via inhalation, contact, or ingestion.	Avoid exposures and minimize interaction time. Maximize interaction distance when feasible. Read the Material Safety Data Sheets (Biological MSDSs). Depending on the worker's potential for exposure, this may require participation in the aerosol transmissible disease program. Proper selection and use of personal protective equipment is required when entering isolation rooms. This may include respiratory protection, eye protection, layers of disposable gloves, disposable gowns and booties; read and follow the posted isolation room signs. Proper selection and use of personal protective equipment is vital when working with infectious patients. This should include respiratory protection, eye protection, and disposable gloves. Implementation of proper personal hygiene habits, including washing hands and face after leaving isolation rooms and removing personal protective equipment. Wash hands before eating.		
BLOODBORNE PATHOGENS AND BIOLOGICAL MATERIALS: Work with patients/human subjects may involve biological materials and wastes (including but not limited to infectious agents, recombinant agents, cell culture, stem cells, tissue culture, bloodborne pathogens, human tissues or fluids, toxins, body fluids, body parts and cadavers). All clinic workers are potentially exposed to these hazards.	Exposure to biological agents via inhalation, contact, ingestion or injection.	Avoid unnecessary exposures. Proper selection and use of personal protective equipment including gloves, protective eyewear, lab coats, and in some instances respiratory protection. Adhere to bloodborne pathogen handling protocols. Implementation of proper personal hygiene habits, including washing hands and face before eating and smoking. Voluntary participation in Hepatitis B vaccination program. Adhere to biological waste handling procedures. Participation in facility specific medical clearances may be required.		
HANDLING OF CRYOGENIC LIQUIDS	Exposure to cryogenic liquids	Avoid unnecessary exposures. Proper selection and use of tools and personal protective equipment including gloves, aprons and protective eyewear. Adhere to cryogenic procedures.		
	DATE	**SIGNATURE**		

UC DAVIS HEALTH

EFFECTIVE: 2015	JOB SAFETY ANALYSIS IIPP-Appendix B	DEPARTMENT BIOMEDICAL ENGINEERING	LOCATION GBSF, Ghausi Hall, Academic Surge	JOB TYPE CLINICAL LABS
JOB FUNCTION	**POTENTIAL HEALTH OR INJURY HAZARD(S)**	**RISK ASSESSMENT, SAFE WORK PRACTICES, PPE AND ENGINEERING CONTROLS**		
TRANSPLANTS AND ANIMAL PARTS: Work in clinics may involve transplants organs, tissues and parts including animal parts.	Exposure to animals and animal allergies via inhalation and contact	Avoid unnecessary exposures. Proper selection and use of personal protective equipment including gloves, protective eyewear, lab coats, and in some instances respiratory protection. Proper adherence to protocols. Implementation of proper personal hygiene habits, including washing hands and face before eating. Participation in facilities- specific medical clearances as required.		
PATIENT RELATED WORKPLACE VIOLENCE: Work in laboratories containing select agents. Select agents in any quantity are registered with the Biosafety Officer. All lab workers who work in a lab with select agents and wastes are potentially exposed to these hazards during a fire or other emergency. Those workers who are registered as working with select agents are trained on safe procedures by the Biosafety Officer.	Exposure to select agents via inhalation, contact, ingestion or injection.	Avoid all exposures. Read the Material Safety Data Sheets (MSDSs). Design experiments for zero exposure. Proper selection and use of personal protective equipment including layers of disposable gloves, disposable lab wear and full-face respiratory protection. Implementation of proper personal hygiene habits, including washing hands and face before eating and smoking. All personnel to receive training from the Biosafety Officer.		
CHEMICALS: Work in clinical situations containing chemicals and chemical waste (including carcinogens). All workers who work in a clinic with chemicals and chemical waste are potentially exposed to these hazards.	Exposure to chemicals via inhalation, contact, ingestion or injection.	Avoid all unnecessary exposures. Read the Material Safety Data Sheets (MSDSs). Reduce exposures that cannot be avoided by minimizing exposure duration and concentration. Proper selection and use of personal protective equipment including gloves, protective eyewear, lab coats, and in some instances respiratory protection. Implementation of proper personal hygiene habits, including washing hands and face before eating and smoking. All personnel to receive training on Chemical Laboratory Safety, Hazardous Waste Management and Waste Minimization during the first 6 months of employment or of conducting this type of work.		
BUSINESS PLAN: There is an inherent hazard in working in a building containing chemicals and workers are potentially exposed to these hazards.	Exposure to chemicals and associated hazards including explosion, fire, inhalation, contact, ingestion or injection.	Avoid all unnecessary exposures. Read the Material Safety Data Sheets (MSDSs) of materials that you work with. Reduce risk by notifying the Safety Officer of the hazards. Read and document training on the Building Fire Plan and the Building Evacuation Plan. Participate in building fire drills. No smoking in or within 20 feet of a laboratory building.		
	DATE	**SIGNATURE**		

UC DAVIS HEALTH

EFFECTIVE: 2015	JOB SAFETY ANALYSIS IIPP-Appendix B	DEPARTMENT BIOMEDICAL ENGINEERING	LOCATION GBSF, Ghausi Hall, Academic Surge	JOB TYPE CLINICAL LABS
JOB FUNCTION	**POTENTIAL HEALTH OR INJURY HAZARD(S)**	**RISK ASSESSMENT, SAFE WORK PRACTICES, PPE AND ENGINEERING CONTROLS**		
CONTROLLED SUBSTANCES: Work in clinical situations handling controlled substances. All workers who work in a clinical situation with controlled substances are potentially exposed to these hazards.	Exposure to chemicals via inhalation, contact, ingestion or injection.	Avoid all unnecessary exposures. Reduce exposures that cannot be avoided by minimizing exposure duration and concentration. Proper selection and use of personal protective equipment including gloves, protective eyewear, lab coats, and in some instances respiratory protection. Implementation of proper personal hygiene habits, including washing hands and face before eating and smoking. All personnel to receive training on Chemical Laboratory Safety, Hazardous Waste Management and Waste Minimization during the first 6 months of employment or of conducting this type of work.		
NUCLEAR MEDICINE AND RADIOACTIVE MATERIALS: Work in clinics containing radiological materials and wastes and work with patients who have been treated with and may contain radioactive materials. All workers are potentially exposed to these hazards. Those workers who conduct radioactive work have a higher potential for exposure and receive required training.	Exposure to radiological agents via inhalation, contact, ingestion or injection.	Avoid all unnecessary exposures. Adhere to radiological material handling procedures including limiting exposures through combination of minimizing time, maximizing distances and use of appropriate shielding. Proper selection and use of personal protective equipment including gloves, protective eyewear, lab coats, and in some instances respiratory protection Implementation of proper personal hygiene habits, including washing hands and face before eating and smoking. Participation in radiological monitoring program may be required. All personnel to conduct radioactive work will receive on the job and classroom training including Radiation Safety during the first 6 months of employment or of conducting this type of work.		
NANOPARTICLES: Work in laboratories, shops and spaces containing chemicals in nanoparticle sizes.	Exposure to nanoparticle chemicals via inhalation, contact, ingestion or injection. The hazards of a nanoparticle are unclear. There is some evidence that the hazard of nanoparticles may be more reflective of particle and fiber hazards rather than of the chemical hazards.	Avoid all unnecessary exposures. Read the Material Safety Data Sheets (MSDSs). Reduce exposures that cannot be avoided by minimizing exposure duration and concentration. Proper selection and use of personal protective equipment including gloves, protective eyewear, lab coats, and in some instances respiratory protection. Implementation of proper personal hygiene habits, including washing hands and face before eating.		
LASERS: Work in clinics containing laser hazards. All workers who work in a clinic with lasers are potentially exposed to these hazards.	Injury from physical hazards including high voltage, lasers and compressed gases and liquids, and specialized equipment.	Avoid unnecessary exposures. Proper selection and use of personal protective eyewear and specialized equipment. Employees are not to enter restricted areas unless accompanied by a properly trained individual familiar with the hazards of the area. Employees are not to operate specialized equipment without proper training and documentation. Personnel routinely entering areas where lasers are used will receive laser safety training within 6 months of employment or of conducting this type of work.		
	DATE	**SIGNATURE**		

UC DAVIS HEALTH

EFFECTIVE: 2015	JOB SAFETY ANALYSIS IIPP-Appendix B	DEPARTMENT BIOMEDICAL ENGINEERING	LOCATION GBSF, Ghausi Hall, Academic Surge	JOB TYPE CLINICAL LABS
JOB FUNCTION	**POTENTIAL HEALTH OR INJURY HAZARD(S)**	**RISK ASSESSMENT, SAFE WORK PRACTICES, PPE AND ENGINEERING CONTROLS**		
X-RAYS AND RADIATION PRODUCING MACHINES: Work in laboratories containing radiological machines. All lab workers who work in a lab with radiation producing equipment are potentially exposed to these hazards. Those workers who operate radioactive equipment and are added to the MUA have a higher potential for exposure and receive prescribed training.	Exposure to radiological agents via inhalation, contact, ingestion or injection.	Avoid all unnecessary exposures. Adhere to machine use procedures including limiting exposures through combination of minimizing time, maximizing distances and use of appropriate shielding. Proper selection and use of personal protective equipment including lead shielding, and lead aprons. Implementation of proper personal hygiene habits, including washing hands and face before eating and smoking. Participation in radiological monitoring program may be required. All personnel to operate radioactive equipment will receive on appropriate training as prescribed by the Radiation Safety Officer during the first 6 months of employment or of conducting this type of work.		
HANDLING AND MOVING HEAVY ITEMS AND EQUIPMENT	Ergonomic hazards including heavy lifting, repetitive motions, awkward motions, crushing or pinching injuries etc.	Get help with all loads that cannot be safely lifted by one person. Use mechanical means to lift and move heavy items, push carts and dolly rather than pull, attend back safety class, employ proper lifting techniques at all times. Set up work operations as ergonomically safe as practical. Wear proper hand and foot protection to protect against crushing or pinching injuries.		
PHYSICAL HAZARDS: Work in clinics and spaces containing physical hazards	Injury from physical hazards including high voltage, lasers, ultraviolet light, compressed gases, liquids, cryogenic materials, and specialized equipment as well as falling objects.	Avoid unnecessary exposures. Proper selection and use of personal protective equipment including gloves, protective eyewear and specialized equipment. Employees are not to enter restricted areas unless accompanied by a properly trained individual familiar with the hazards of the area. Employees are not to operate specialized equipment without proper training and documentation. Watch for overhead hazards and wear head protection if needed. Personnel routinely entering areas where lasers are used will receive laser safety training within 6 months of employment.		
TRANSPORT: Transportation of samples, hazardous materials, radiological materials or wastes	Exposure to biological, chemical or radiological materials or waste during packaging and/or transport	All drivers of University vehicles must attend the Driver Safety Awareness Course offered by Fleet Services and possess a valid California drivers' license. Those who transport or prepare for transport in vehicles biological, chemical or radiological materials subject to DOT or IATA shipping requirements shall take the required Dangerous Goods Shipping Class. Hazardous materials may not be transported in personally owned vehicles. Transport of such materials between rooms and buildings shall be labeled and in double containment.		
	DATE	**SIGNATURE**		

UC DAVIS HEALTH

EFFECTIVE: 2015	JOB SAFETY ANALYSIS IIPP-Appendix B	DEPARTMENT BIOMEDICAL ENGINEERING	LOCATION GBSF, Ghausi Hall, Academic Surge	JOB TYPE OFFICE & COMPUTER WORK
JOB FUNCTION	**POTENTIAL HEALTH OR INJURY HAZARD(S)**	**RISK ASSESSMENT, SAFE WORK PRACTICES, PPE & ENGINEERING CONTROLS**		
General office work.	1. Back strain, eyestrain, repetitive motion injury. 2. Physical injuries due to slips, trips and falls, and falling objects. 3. Electrical hazards. 4. Physical injuries due to fires, earthquakes, bomb threats and workplace violence.	1. Ensure that workstations are ergonomically correct. Refer to EH&S SafetyNet #'s 17, 41, 46 and 96. Training and enforcement are under the direction of the Chief Administrative Officer. 2. Keep floors clear of debris and liquid spills. If a spill can't be cleaned immediately, use the "wet floor" sign to warn others of the potential hazard. Keep furniture boxes, etc. from blocking doorways, halls and walking space. Do not stand on chairs of any kind; use proper footstools or ladders. Do not store heavy objects overhead. Do not top-load filing cabinets, fill from bottom to top. Do not open more than one file drawer at a time. Brace tall bookcases and tall file cabinets to walls. Refer to EH&S SafetyNet # 46 and 83. Training and enforcement are under the direction of the Chief Administrative Officer. 3. Do not use extension cords in lieu of permanent wiring. Ensure that high wattage appliances do not overload circuits. Replace frayed or damaged electrical cords. Ensure that electrical cords are not wedged against furniture or pinched by doors. Refer to EH&S SafetyNet #'s 20 and 109. Training and enforcement are under the direction of the Chief Administrative Officer. 4. Attend emergency action and fire prevention plan training including emergency escape drills. Attend Workplace Violence training offered by UC Davis Police Department. Refer to EH&S SafetyNet # 83. Training and enforcement are under the direction of the Chief Admin Officer.		
Handling and moving heavy items and equipment.	Ergonomic hazards including heavy lifting, repetitive motions, awkward motions, crushing or pinching injuries, etc.	Get help with all loads that cannot be safely lifted by one person. Use mechanical means to lift and move heavy items, push carts and dolly rather than pull, employ proper lifting techniques at all times. Wear proper hand and foot protection to protect against crushing or pinching injuries. Refer to EH&S SafetyNet #'s 29, 41 and 46. Training and enforcement are under the direction of the Chief Admin Officer.		
Operation of motor vehicles	Motor vehicle accidents involving personal injury, or property damage.	Add drivers of University vehicles must attend the Driver Safety Awareness Course offered by Fleet Services and possess a valid California driver's license. Hazardous materials may not be transported in personally owned vehicles.		
	DATE	**SIGNATURE**		

UC DAVIS HEALTH

EFFECTIVE: 2015	JOB SAFETY ANALYSIS IIPP-Appendix B	DEPARTMENT BIOMEDICAL ENGINEERING	LOCATION GBSF, Ghausi Hall, Academic Surge	JOB TYPE RESEARCH LABS
JOB FUNCTION	**POTENTIAL HEALTH OR INJURY HAZARD(S)**	**RISK ASSESSMENT, SAFE WORK PRACTICES, PPE & ENGINEERING CONTROLS**		
ANIMAL WORK: Work in laboratories, procedure rooms, surgery rooms and animal housing facilities containing animals. Refer to specific Animal Care Protocols. All lab workers who work in a lab conducting animal research are potentially exposed to these hazards. Those workers who are added to the ACPs have a higher potential for exposure and receive prescribed training.	Exposure to animals and animal allergies via inhalation and contact	Avoid unnecessary exposures. Proper selection and use of personnel protective equipment including gloves, protective eyewear, lab coats, and in some instances respiratory protection. Proper adherence to animal care and use protocols. Implementation of proper personnel hygiene habits, including washing hands and face before eating and smoking. Participation in the occupational health program for animal workers. All personnel to conduct animal research and be added to an Animal Use and Care Protocol shall attend the IACUC Animal Care and Use 101 training during the first 6 months of employment or of conducting this work. Participation in Facility specific medical clearances as required.		
BIOLOGICAL MATERIALS: Work in laboratories containing biological materials and wastes (including but not limited to infectious agents, recombinant work, cell culture, stem cell work, tissue culture, bloodborne pathogens, human tissues or fluids, stem cells, toxins and body parts). BUA: All lab workers who work in a lab with biological materials and wastes are potentially exposed to these hazards. Those workers who are added to the BUA have a higher potential for exposure and receive prescribed training.	Exposure to biological agents via inhalation, contact, ingestion or injection.	Avoid unnecessary exposures. Proper selection and use of personnel protective equipment including gloves, protective eyewear, lab coats, and in some instances respiratory protection. Proper adherence to bloodborne pathogen handling protocols. Implementation of proper personnel hygiene habits, including washing hands and face before eating and smoking. Voluntary participation in Hepatitis B vaccination program. Proper adherence to biological waste handling procedures. All personnel to conduct biological work and added to the BUA shall attend a class on Laboratory Biological Safety/Bloodborne Pathogen Program during the first 6 months of employment or of conducting this type of work. Participation in Facility specific medical clearances may be required.		
	DATE	**SIGNATURE**		

UC DAVIS HEALTH

EFFECTIVE: 2015	JOB SAFETY ANALYSIS IIPP-Appendix B	DEPARTMENT BIOMEDICAL ENGINEERING	LOCATION GBSF, Ghausi Hall, Academic Surge	JOB TYPE RESEARCH LABS
JOB FUNCTION	**POTENTIAL HEALTH OR INJURY HAZARD(S)**	**RISK ASSESSMENT, SAFE WORK PRACTICES, PPE & ENGINEERING CONTROLS**		
BUSINESS PLAN: There is an inherent hazard in working in a building containing chemicals. **Bldg/Title:**_____ All lab workers who work in a building with chemicals and associated hazards are potentially exposed to these hazards.	Exposure to chemicals and associated hazards including explosion, fire, inhalation, contact, ingestion or injection.	Avoid all unnecessary exposures. Read the Material Safety Data Sheets (MSDS's) of materials that you work with. Reduce risk by notifying the Departmental Safety Coordinator and EH&S of hazards. Read and document training on the Building Fire Plan and the Building Evacuation Plan. Participate in building fire drills. No smoking in or within 20 feet of a laboratory building.		
CHEMICALS: Work in laboratories containing chemicals and chemical waste (including carcinogens). **CIS:** _____ All lab workers who work in a lab with chemicals and chemical waste are potentially exposed to these hazards.	Exposure to chemicals via inhalation, contact, ingestion or injection.	Avoid all unnecessary exposures. Read the Material Safety Data Sheets (MSDS's). Reduce exposures that cannot be avoided by minimizing exposure duration and concentration. Proper selection and use of personnel protective equipment including gloves, protective eyewear, lab coats, and in some instances respiratory protection. Implementation of proper personnel hygiene habits, including washing hands and face before eating and smoking. All personnel to receive training on Chemical Laboratory Safety, Hazardous Waste Management and Waste Minimization during the first 6 months of employment or of conducting this type of work.		
CONTROLLED SUBSTANCES: Work in laboratories and animal facilities handling controlled substances. **CSA:** _____ All lab workers who work in a lab with controlled substance authorization are potentially exposed to these hazards. Those workers who are added to the LUA have a higher potential for exposure and receive prescribed training.	Exposure to chemicals via inhalation, contact, ingestion or injection.	Avoid all unnecessary exposures. Reduce exposures that cannot be avoided by minimizing exposure duration and concentration. Proper selection and use of personnel protective equipment including gloves, protective eyewear, lab coats, and in some instances respiratory protection. Implementation of proper personnel hygiene habits, including washing hands and face before eating and smoking. All personnel to receive training on Chemical Laboratory Safety, Hazardous Waste Management and Waste Minimization during the first 6 months of employment or of conducting this type of work.		
CRYOGENIC LIQUIDS:	Exposure to cryogenic liquids.	Avoid unnecessary exposures. Proper selection and use of tools and personnel protective equipment including gloves, aprons and protective eyewear. Proper adherence to cryogenic procedures.		
	DATE	**SIGNATURE**		

UC DAVIS HEALTH

EFFECTIVE: 2015	JOB SAFETY ANALYSIS IIPP-Appendix B	DEPARTMENT BIOMEDICAL ENGINEERING	LOCATION GBSF, Ghausi Hall, Academic Surge	JOB TYPE RESEARCH LABS
JOB FUNCTION	**POTENTIAL HEALTH OR INJURY HAZARD(S)**	**RISK ASSESSMENT, SAFE WORK PRACTICES, PPE & ENGINEERING CONTROLS**		
Heavy Equipment: handling and moving heavy items and equipment.	Ergonomic hazards including heavy lifting, repetitive motions, awkward motions, crushing or pinching injuries etc.	Get help with all loads that cannot be safely lifted by one person. Use mechanical means to lift and move heavy items, push carts and dolly rather than pull, attend back safety class, employ proper lifting techniques at all times. Set up work operations as ergonomically safe as practical. Wear proper hand and foot protection to protect against crushing or pinching injuries.		
HUMAN SUBJECTS: work with human subjects. **IRB PROTOCOLS:** All workers who work with human subjects or around those people who do are potentially exposed to these hazards. Those workers who are added to the IRB Protocol have a higher potential for exposure and receive HIPAA Training and HIPAA Research training.	Exposure to chemical, radiological, biological (infectious) agents via inhalation, contact, ingestion or injection. Exposure to physical hazards.	Avoid unnecessary exposures. Proper selection and use of personnel protective equipment including gloves, protective eyewear, lab coats, and in some instances respiratory protection. Proper adherence to bloodborne pathogen handling protocols. Implementation of proper personnel hygiene habits, including washing hands and face before eating and smoking. Voluntary participation in Hepatitis B vaccination program. Proper adherence to biological waste handling procedures. All personnel to conduct biological work and added to the BUA shall attend a class on Laboratory Biological Safety/Bloodborne Pathogen Program during the first 6 months of employment of conducting this type of work. Participation in Facility specific medical clearances may be required.		
LASERS: Work in laboratories, shops and spaces containing laser hazards. **LUA:** _____ All lab workers who work in a lab with lasers are potentially exposed to these hazards. Those workers who are added to the LUA have a higher potential for exposure and receive prescribed training.	Injury from physical hazards including high voltage, lasers and compressed gases and liquids, and specialized equipment.	Avoid unnecessary exposures. Proper selection and use of personnel protective eyewear and specialized equipment. Employees are not to enter restricted areas unless accompanied by a properly trained individual familiar with the hazards of the area. Employees are not to operate specialized equipment without proper training and documentation. Personnel routinely entering areas where lasers are used will receive laser safety training within 6 months of employment or of conducting this type of work.		
Motor vehicle operation: university vehicle(s)	Motor vehicle accidents involving personnel injury, or property damage.	All drivers of University vehicles must attend the Driver Safety Awareness Course offered by Fleet Services and possess a valid California driver's license. Hazardous materials may not be transported in personnel owned vehicles.		
	DATE	**SIGNATURE**		

UC DAVIS HEALTH

EFFECTIVE: 2015	JOB SAFETY ANALYSIS IIPP-Appendix B	DEPARTMENT BIOMEDICAL ENGINEERING	LOCATION GBSF, Ghausi Hall, Academic Surge	JOB TYPE RESEARCH LABS
JOB FUNCTION	**POTENTIAL HEALTH OR INJURY HAZARD(S)**	**RISK ASSESSMENT, SAFE WORK PRACTICES, PPE & ENGINEERING CONTROLS**		
NANOPARTICLES: work in laboratories, shops and spaces containing chemicals in nanopartical sizes.	Exposure to nanoparticle chemicals via inhalation, contact, ingestion or injection. The hazard of nanoparticles is unclear. There is some evidence that the hazard of nanoparticles may more reflective of particle and fiber hazards than of the chemical hazards.	Avoid all unnecessary exposures. Read the Material Safety Data Sheets (MSDS's). Reduce exposures that cannot be avoided by minimizing exposure duration and concentration. Proper selection and use of personnel protective equipment including gloves, protective eyewear, lab coats, and in some instances respiratory protection. Implementation of proper personnel hygiene habits, including washing hands and face before eating and smoking.		
Physical Hazards: work in laboratories, shops and spaces containing physical hazards.	Injury from physical hazards including high voltage, lasers and ultraviolet light, compressed gases and liquids, cryogenic materials, and specialized equipment as well as falling objects.	Avoid unnecessary exposures. Proper selection and use of personnel protective equipment including gloves, protective eyewear and specialized equipment. Employees are not to enter restricted areas unless accompanied by a properly trained individual familiar with the hazards of the area. Employees are not to operate specialized equipment without proper training and documentation. Watch for overhead hazards and wear head protection if needed. Personnel routinely entering areas where lasers are used will receive laser safety training within 6 months of employment.		
RADIOACTIVE MATERIALS: work in laboratories containing radiological materials and wastes. **RUA: _____** All lab workers who work in a lab with radiological materials and wastes are potentially exposed to these hazards. Those workers who conduct radioactive work and are added to the RUA have a higher potential for exposure and receive prescribed training.	Exposure to radiological agents via inhalation, contact, ingestion or injection.	Avoid all unnecessary exposures. Adhere to radiological material handling procedures including limiting exposures through combination of minimizing time, maximizing distances and use of appropriate shielding. Proper selection and use of personnel protective equipment including gloves, protective eyewear, lab coats, and in some instances respiratory protection Implementation of proper personnel hygiene habits, including washing hands and face before eating and smoking. Participation in radiological monitoring program may be required. All personnel to conduct radioactive work will receive on the job and classroom training including Radiation Safety during the first 6 months of employment or of conducting this type of work.		
	DATE	**SIGNATURE**		

UC DAVIS HEALTH

EFFECTIVE: 2015	JOB SAFETY ANALYSIS IIPP-Appendix B	DEPARTMENT BIOMEDICAL ENGINEERING	LOCATION GBSF, Ghausi Hall, Academic Surge	JOB TYPE RESEARCH LABS
JOB FUNCTION	**POTENTIAL HEALTH OR INJURY HAZARD(S)**	**RISK ASSESSMENT, SAFE WORK PRACTICES, PPE & ENGINEERING CONTROLS**		
RADIATION PRODUCING MACHINES: work in laboratories containing radiological machines. **MUA:** _____ All lab workers who work in a lab with radiation producing equipment are potentially exposed to these hazards. Those workers who operate radioactive equipment and are added to the MUA have a higher potential for exposure and receive prescribed training.	Exposure to radiological agents via inhalation, contact, ingestion or injection.	Avoid all unnecessary exposures. Adhere to machine use procedures including limiting exposures through combination of minimizing time, maximizing distances and use of appropriate shielding. Proper selection and use of personnel protective equipment including lead shielding, and lead aprons. Implementation of proper personnel hygiene habits, including washing hands and face before eating and smoking. Participation in radiological monitoring program may be required. All personnel to operate radioactive equipment will receive on appropriate training as prescribed by the Radiation Safety Officer during the first 6 months of employment or of conducting this type of work.		
SELECT AGENTS: work in laboratories containing select agents. Select agents in any quantity are registered with the Biosafety Officer. **Select Agent Quantities:** **> Exempt quantities** **< Exempt quantities** All lab workers who work in a lab with select agents and wastes are potentially exposed to these hazards during a fire or other emergency. Those workers that are working with select agents are trained on safe procedures by the Biosafety Officer.	Exposure to select agents via inhalation, contact, ingestion or injection.	Avoid all exposures. Read the Material Safety Data Sheets (MSDS's). Design experiments for zero exposure. Proper selection and use of personnel protective equipment including layers of disposable gloves, disposable lab wear and full-face respiratory protection. Implementation of proper personnel hygiene habits, including washing hands and face before eating and smoking. All personnel to receive training from the Biosafety Officer.		
	DATE	**SIGNATURE**		