

# RASP Research Safety Checklist

Please answer the following questions regarding laboratory safety, and the use of chemicals or hazardous materials. It is not necessary to complete this checklist if you have completed this form within the past year, provided the research proposed in the present application does not employ any chemical, biological, or microorganism(s) not used in the work for which the previous Research Safety Checklist was submitted.

## I. GENERAL INFORMATION

Date of Preparation: \_\_\_\_\_

### Emergency Contacts

A. Principal Investigator: \_\_\_\_\_  
Print Name

Extension: \_\_\_\_\_ Home Phone: \_\_\_\_\_ Room: \_\_\_\_\_

B. Laboratory Manager, Co-PI, or Coinvestigator: \_\_\_\_\_  
Print Name

Extension: \_\_\_\_\_ Home Phone: \_\_\_\_\_ Room: \_\_\_\_\_

Location(s) in which the research will take place: \_\_\_\_\_

Total number of persons working in these lab(s): \_\_\_\_\_

## II. GENERAL SAFETY

YES NO

- G-1. Are any members of your staff unable to evacuate the building using stairways if elevators are nonfunctional? If yes, please provide their names and normal working locations:

*Name:*

*Location:*

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

- G-2. Will your work require the use of power tools other than a microtome?

- G-3. Will your work require the use of any equipment that emits sound levels in excess of 80dBA? If unsure, check "yes" for monitoring. There will be no charge.

- G-4. Will you or any member of your staff require the use of any kind of respirator for any purpose any time?

- G-5. Has suitable body and hand protection been provided to members of your staff who will be using corrosive materials?

### III. FIRE SAFETY

- F-1. Will your research require the use or storage of:
- | YES                      | NO                       |  |
|--------------------------|--------------------------|--|
| <input type="checkbox"/> | <input type="checkbox"/> | a. flammable gas (es)? If yes, please specify: _____   |
| <input type="checkbox"/> | <input type="checkbox"/> | b. corrosive acids?  |
| <input type="checkbox"/> | <input type="checkbox"/> | c. scintillation fluids?   |
| <input type="checkbox"/> | <input type="checkbox"/> | d. water reactive chemicals (e.g., Na, K, or other alkali metals, calcium carbide, etc.)?  |
| <input type="checkbox"/> | <input type="checkbox"/> | e. flammable liquids or oils?  |
| <input type="checkbox"/> | <input type="checkbox"/> | F-2. Does your laboratory have a fire department Certificate of Fitness (C of F) holder? If no, please contact Environmental Health and Safety for help in obtaining one. If yes, please indicate:<br>Name: _____ C of F #: _____<br>Rooms covered under C of F: _____ |
| <input type="checkbox"/> | <input type="checkbox"/> | F-3. Will you use any apparatus which requires a heating source that burns a flammable gas mixed with an oxidizing gas (e.g., blowpipe, welding apparatus, gas chromatograph)? This does not apply to the use of a flammable gas alone.                                |
| <input type="checkbox"/> | <input type="checkbox"/> | F-4. Will you need any flammable liquid or solid that would best be stored at below ambient temperatures in order to remain stable, and if so, do you have an approved explosion-proof refrigerator?   |
| <input type="checkbox"/> | <input type="checkbox"/> | F-5. Will you use perchloric acid (HClO <sub>4</sub> ) above ambient temperatures?   |
| <input type="checkbox"/> | <input type="checkbox"/> | F-6. Will you use or store any ether or other readily peroxidizable material?  |
| <input type="checkbox"/> | <input type="checkbox"/> | F-7. Will you use or dispose of any azide in any quantity?   |
| <input type="checkbox"/> | <input type="checkbox"/> | F-8. Will you use or store picric acid?  |
| <input type="checkbox"/> | <input type="checkbox"/> | F-9. Will you use or store high explosive or nitro paraffins (e.g., hydrazine, trinitrotoluene, etc.)?   |

### IV. CHEMICAL HYGIENE PLAN

Weill Medical College (WMC) complies with the Occupational Safety and Health Administration (OSHA) requirements to have a chemical hygiene plan in place, and to provide required services under the OSHA laboratory standard.

Environmental Health and Safety provides the training mandated by OSHA with regard to the WMC Chemical Hygiene Plan (CHP) and the proper use of Material Safety Data Sheets (MSDS's). It is the Principal Investigator's responsibility to ensure that each member of his or her staff is aware of the adverse health effects of the specific materials with which they work. Every lab must have an MSDS for each chemical used and/or stored.

- | YES                      | NO                       |   |
|--------------------------|--------------------------|---|
| <input type="checkbox"/> | <input type="checkbox"/> | C-1. Are all members of your staff aware of the WMC CHP, and have they read and understood the specific institutional plan?                 |
| <input type="checkbox"/> | <input type="checkbox"/> | C-2. Have members of your staff received training with respect to the health hazards posed by the specific substances with which they work? |
| <input type="checkbox"/> | <input type="checkbox"/> | C-3. Will you afford your employees additional specific training for any new reagents or chemicals that are purchased for your work?        |
| <input type="checkbox"/> | <input type="checkbox"/> | C-4. Are your employees trained each year with respect to the health hazards posed by all of the specific substances?                       |

## V. HEALTH

YES NO

H-1. Will your research involve any:

- a. microorganisms (bacteria, yeast, fungi, viruses, or rickettsiae)?
- b. animals or animal tissues (including blood, urine, or feces)?
- c. human tissues (including blood, urine, or feces)?

If yes to any of the above, please specify:

<i>Bacteria</i>	<i>Fungi</i>	<i>Viruses/Rickettsiae</i>
_____	_____	_____
<i>Protozoa/Helminths</i>	<i>Human Tissues</i> <i>(Liver, Brains, etc.)</i>	<i>Animals or Animal Tissues</i> <i>(Species and Organs)</i>
_____	_____	_____
_____	_____	_____

H-2. Will you use a biological safety cabinet (laminar flow hood)?

H-3. Will you use radioisotopes? If yes, specify: \_\_\_\_\_

\_\_\_\_\_

H-4. Will you use any substance known or suspected to be carcinogenic, tumorigenic, mutagenic, or teratogenic? Please see the next-to-last page for a list of the regulated carcinogens. If yes, specify:

\_\_\_\_\_

\_\_\_\_\_

H-5. Will the research involve the use of recombinant DNA?

H-6. Will you use or store any of the following substances or types of substance:

- a. organic acid?
- b. aldehydes?
- c. organic halogens?
- d. organic phosphates or related compound (e.g., diisofluorophosphate, etc.)?
- e. anhydrous ammonia?
- f. cyanides and nitriles?
- g. hydrides?
- h. primary peroxides, organic or inorganic?
- i. mercury, metallic (for use other than in instruments)?
- j. vehicles (e.g., DMSO, etc.)?
- k. phosgene or other military gas?
- l. non-flammable anaesthetic gas (e.g., halothanes, etc.)?
- m. exceptionally strong or insidious corrosives (e.g., osmium tetroxide, hydrofluoric acid, etc.)?

## VI. HAZARDOUS WASTE

The Resources Conservation and Recovery Act (RCRA) is enforced by the Federal Environmental Protection Agency (EPA) and the New York State Department of Environmental Conservation (NYSDEC), which regulates disposal of hazardous waste. The College has a hazardous waste management program which is administered by Environmental Health and Safety and complies with the law.

The following questions will ensure that Principal Investigators and their staff are aware of their obligations with respect to RCRA.

### YES NO

- |                          |                          |  |
|--------------------------|--------------------------|--|
| <input type="checkbox"/> | <input type="checkbox"/> | W-1. Have you informed your staff that no hazardous waste is to be discarded by any means other than through Environmental Health and Safety?  |
| <input type="checkbox"/> | <input type="checkbox"/> | W-2. Will all hazardous waste containers be legibly labeled as to contents, including percentages or ratios, if the waste is a mixture?  |
| <input type="checkbox"/> | <input type="checkbox"/> | W-3. Will all hazardous waste containers be sealable by means of a screw top?  |
| <input type="checkbox"/> | <input type="checkbox"/> | W-4. Do you need any further information as to discarding chemicals that are unwanted, including those which are efferent from experiments?  |
| <input type="checkbox"/> | <input type="checkbox"/> | W-5. Have you informed your staff that no needles, syringes, sharp instruments, pathological waste, or any specimens of animal or human tissue are to be discarded in the regular garbage?   |
| <input type="checkbox"/> | <input type="checkbox"/> | W-6. Will all needles, syringes, scalpel blades, other sharp instruments, and all devices physically resembling needles or syringes, regardless of their use, be discarded only into the special rigid containers which the College provides to each laboratory? |
| <input type="checkbox"/> | <input type="checkbox"/> | W-7. Will all dead animals or animal tissue specimens be placed in red bags and brought to Room A-729, S-309, or KB-212?   |
| <input type="checkbox"/> | <input type="checkbox"/> | W-8. Will all human tissue samples be placed in red bags and left in the laboratory for pick-up by Building Services?  |

#### Regulated Carcinogens (29 CFR 1910.1001-48)

These are the 25 regulated carcinogens. In addition, there are a great number of suspect carcinogens. If you are using substances in either of these two groups, please list them in the Safety Checklist at Question H-4.

- |   |                                 |
|---|---------------------------------|
| 1. asbestos, tremolite, anthophyllite, and actinolite | 14. 4-dimethylaminoazobenzene   |
| 2. coal tar pitch volatiles                           | 15. n-nitrosodimethylamine      |
| 3. 4-nitrobiphenyl                                    | 16. vinyl chloride              |
| 4. alpha-naphthylamine                                | 17. inorganic arsenic           |
| 5. methyl chloromethyl ether                          | 18. lead                        |
| 6. -3,3'-dichlorobenzidine                            | 19. benzene                     |
| 7. bis-chloromethyl ether                             | 20. coke oven emissions         |
| 8. beta-naphthylamine                                 | 21. cotton dust                 |
| 9. benzidine  | 22. 1,2-dibromo-3-chloropropane |
| 10. 4-aminodiphenyl                                   | 23. acrylonitrile               |
| 11. ethyleneimine                                     | 24. ethylene oxide              |
| 12. beta-propiolactone                                | 25. formaldehyde                |
| 13. 2-acetylaminofluorene                             |                                 |

## Prior Approval for the Use of Highly Hazardous Materials

Weill Medical College (WMC) requires prior approval for research using materials with high hazard potential. This requirement is in accordance with the Occupational Safety and Health Administration (OSHA) Laboratory Standard 29 CFR 1910.1450, and is part of WMC's Chemical Hygiene Plan. Environmental Health and Safety will contact you regarding the approval process.

**YES**   **NO**

   1. Will highly hazardous materials be used? If yes, please answer questions 2 and 3.

2. Please mark the hazard class and identify the material:

HIV

High chronic toxicity agents

Highly pathogenic organisms

High acute toxicity agents

Highly carcinogenic agents or promoters

Explosive potential

Embryotoxins, teratogens

*Specify material(s):*

*Approximate amount to be held on site:*

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   3. Will this research involve administering the specified material(s) to animals?

   4. Does your research involve the derivation or use of **human embryonic stem cells** (hES cells) or **stem cell lines**?

→ If yes, please complete the ESCRO Notification/Request Form and the hESC Research Tracking Form. These forms are available in the Grants and Contracts Forms section of the Intranet at: <http://intranet.med.cornell.edu/research/>. Submit the completed forms with a copy of your proposal to: Dr. Harry Lander 1300 York Avenue, Room A-128/Box 89. Direct any questions regarding these forms to Dr. Lander at 212-746-5773.

## VII. SIGNATURE

*Signature below indicates review, agreement, and compliance with Sections I – VI above.*

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PI's Signature

Date

**Please submit this form with your grant or contract application to the Office of Research and Sponsored Programs (RASP), Room A-128.**