Information on completing this form and a list of frequently asked questions are available at: weill.cornell.edu/ehs/faq/rsc

FOR EHS USE ONLY	
PI #:	Approval Date:

RESEARCH SAFETY CHECKLIST

(Updated June 12, 2009)

The Research Safety Checklist is used to assess the environmental health and safety hazards and compliance associated with research and/or laboratory work performed by a Principal Investigator (PI). This checklist must be completed for all work performed by the PI. If a question is unclear or additional information is required, select the "?" button associated with the question and Environmental Health and Safety (EHS) will follow-up with the PI. Note that selecting "?" button will not delay the grant application process. A completed checklist must be submitted at least once a year or when new hazards are introduced into the laboratory. Use only the most recent version of the Research Safety Checklist which is available on the RASP Grants and Contracts website (http://weill.cornell.edu/research/for_pol/grant_con.html). Utilize Adobe Acrobat Reader© 9.0 or higher to complete this form. Adobe Acrobat Reader© is available from ITS (http://weill.cornell.edu/its/downloads/). For additional information or assistance in completing this form, please contact EHS at (646) 962-7233.

SECTION I: CONTACT INFORMATION

Department/Division:		Laboratory Location(s): (bldg/room)

Principal Investigator

Last Name:	First Name:	Email Address:

Mailing Address / Box Number:	Office Location: (bldg/room)	Work Phone:

Laboratory Safety Coordinator

Person designated by the Principal Investigator to coordinate safety activities in the laboratory. Leave this section blank if the Principal Investigator coordinates day-to-day safety activities in the laboratory and serves as the primary contact.

Last Name:	First Name:	Email Address:

Mailing Address / Box Number:	Office Location: (bldg/room)	Work Phone:

SECTION II: HAZARD ASSESSMENT

CHEMICAL HAZARDS

1. Does the laboratory work with or store any of the following classes of chemicals?

A. Flammable gases (excluding house natural gas)	○ Yes	◉ No	○ ?
B. Poison Gases	○ Yes	◉ No	○ ?
C. Anesthetic Gases	○ Yes	◉ No	○ ?
D. Poison inhalation hazards (e.g., acrolein)	○ Yes	◉ No	○ ?
E. Cryogenic liquid (e.g. liquid nitrogen)	○ Yes	◉ No	○ ?
F. Water-reactive materials (e.g. sodium borohydride, alkali metals)	○ Yes	◉ No	○ ?
G. Air-reactive / pyrophoric materials (e.g., t-butyl lithium, Grignard reagents, sodium sulfide)	○ Yes	◉ No	○ ?
H. Ether or other peroxide-forming chemicals	○ Yes	◉ No	○ ?
I. High explosives, multi-nitro / nitrated compounds (e.g., picric acid)	○ Yes	◉ No	○ ?
J. Cyanides and nitriles	○ Yes	◉ No	○ ?
K. Dioxins (e.g.,TCDD)	○ Yes	◉ No	○ ?
L. Organic phosphates or related compound (e.g., diisofluorophosphate)	○ Yes	◉ No	○ ?
M. DEA controlled substances (e.g., ketamine, pentobarbitol, buprenorphine)	○ Yes	◉ No	○ ?

N.	Known or suspected carcinogens, mutagens or teratogens (e.g. formaldehyde, ethylene oxide) If yes, list agents:	○ Yes	◉ No	○ ?
O.	High chronic or acute toxicity agents (e.g. hydrofluoric acid, osmium tetroxide) If yes, list agents:	○ Yes	◉ No	○ ?
P.	Toxins (i.e., poisonous substance, such as a protein, that is produced by living cells or organisms) If yes, list toxins:	○ Yes	◉ No	○ ?
Q.	Nanoscale Materials (Nanoparticles) If yes, list materials and physical state:	○ Yes	◉ No	○ ?
2.	Is there proper chemical segregation implemented in the laboratory including separate storage / containment areas for flammable liquids, oxidizers, organic acids, inorganic acids, caustics/bases, and highly toxic chemicals?	◉ Yes	○ No	○ ?
3.	Does the laboratory perform flammable gas and oxidizing gas mixing operations (e.g., gas chromatograph, welding apparatus)?	○ Yes	◉ No	○ ?

BIOLOGICAL HAZARDS

4.	Does the laboratory work with or store any of the following biological materials?							
	A. Bacteria	○ Yes	◉ No	○ ?	D. Prions	○ Yes	◉ No	○ ?
	B. Fungi	○ Yes	◉ No	○ ?	E. Rickettsia	○ Yes	◉ No	○ ?
	C. Parasites	○ Yes	◉ No	○ ?	F. Viruses	○ Yes	◉ No	○ ?

5.	If yes to Question 4, list each biological material, including genus/species/strain(s).							
	A.				F.			
	B.				G.			
	C.				H.			
	D.				I.			
	E.				J. Additional listed in Section IV Comments	○ Yes	◉ No	○ ?

6.	Does the laboratory work with recombinant DNA (plasmids, vectors, genetically modified micro-organisms, transgenic animals)?	○ Yes	◉ No	○ ?
7.	Does the laboratory work with human embryonic stem cells or stem cell lines?	○ Yes	◉ No	○ ?
A.	If yes, has an ESCRO Notification / Request Form and hESC Research Tracking Form been submitted to: Dr. Mary Simmerling, 407 East 61st Street, Box 5 (646-962-8188)?	◉ N/A	○ Yes	○ No ○ ?
8.	Does the laboratory work with or store human blood, tissue, body fluids, primary cells, or cell lines?	○ Yes	◉ No	○ ?
9.	Does the laboratory work with or store non-human blood, tissue, body fluids, primary cells, or cell lines?	○ Yes	◉ No	○ ?
10.	Does the laboratory work with or store Bioterrorism Agents (i.e., Select Agents)?	○ Yes	◉ No	○ ?
11.	Is a Biological Safety Cabinet available and certified annually in the laboratory?	○ N/A	◉ Yes	○ No ○ ?
12.	Has the Principal Investigator made available instruction and training specific to laboratory protocols: describing routes of exposure, symptoms of disease, treatments and other pathogen-specific information?	◉ Yes	○ No	○ ?
13.	Does the research or other work require use of a Biosafety Level 3 laboratory?	○ Yes	◉ No	○ ?

PERSONAL PROTECTIVE EQUIPMENT (PPE)

14.	Is all required PPE (e.g., laboratory coats, gloves) readily available to all laboratory staff in appropriate sizes?	◉ Yes	○ No	○ ?
15.	Are respirators utilized by any laboratory staff?	○ Yes	◉ No	○ ?
16.	Is a physical barrier used or splash goggles/face shields worn during laboratory operations which create a splash hazard?	○ N/A	○ Yes	○ No ○ ?

SECTION III: COMPLIANCE

FDNY / FIRE SAFETY

17.	Are any laboratory personnel unable to evacuate the building using stairways if elevators are non-functional? If yes, provide name and location :	○ Yes	◉ No	○ ?
18.	Are all laboratory staff familiar with the Building-Specific Fire Safety Procedures (WCMC Intranet only) including evacuation routes, nearest fire exits, fire alarm pull stations, and fire extinguishers?	◉ Yes	○ No	○ ?
19.	Are fire alarm pull stations, strobes, speakers, and fire extinguishers unobstructed and visible?	◉ Yes	○ No	○ ?
20.	Are all entrance doors and fire doors kept closed (no wedges or chocks) and maintained with clear / unobstructed access and travel?	◉ Yes	○ No	○ ?
21.	Are all walking aisles and egress paths maintained with no obstructions?	◉ Yes	○ No	○ ?
22.	Are public corridors free from storage?	◉ Yes	○ No	○ ?
23.	Are flammable liquids only stored in a flammable material storage or explosion-proof refrigerator, freezer or cold room?	◉ Yes	○ No	○ ?
24.	Is the quantity of flammable liquids in all labs below the laboratory unit's limits?	◉ Yes	○ No	○ ?
25.	Are all compressed-gas cylinders secured via chain, strap, stand or cart?	◉ Yes	○ No	○ ?
26.	Is all material storage maintained with at least 18 inches of clearance from ceilings?	◉ Yes	○ No	○ ?
27.	Are all glass bottles stored off the floor?	◉ Yes	○ No	○ ?
28.	Are all peroxide-forming chemical containers properly labeled with both the "date received" and "date opened", and are all expired peroxide-forming chemicals disposed?	◉ Yes	○ No	○ ?
29.	Is the holder of a valid FDNY C14 (Certificate of Fitness for the Supervision of Laboratories) present at all times the laboratory is in operation?	◉ Yes	○ No	○ ?
30.	Is the holder of a valid FDNY G97 (Certificate of Fitness for Storage and Handling of Cryogenic Liquids) present at all times the laboratory in operation (only applies to laboratory units with 60 or more gallons of liquid nitrogen)? ◉ N/A	○ Yes	○ No	○ ?

LABORATORY SAFETY

31.	Are High Hazard Operating Procedures established and documented for all work with air-reactive, water-reactive and highly toxic chemicals as well as all known or suspected carcinogens, mutagens or teratogens?	◉ Yes	○ No	○ ?
32.	Are safety showers and eyewashes maintained free of obstructions and are all eyewashes flushed weekly by laboratory personnel?	◉ Yes	○ No	○ ?
33.	Are spill clean-up materials available and are laboratory personnel familiar with their use?	◉ Yes	○ No	○ ?
34.	Are laboratory coats worn by all personnel when working in the laboratory? *Additional PPE is required depending on the specific nature of the work and hazards present.*	◉ Yes	○ No	○ ?
35.	Have all laboratory personnel completed Laboratory Safety training including annual refreshers?	◉ Yes	○ No	○ ?
36.	Does the laboratory import, export or ship biological or chemical agents? If yes, list agents:	○ Yes	◉ No	○ ?
	A. If yes, have all laboratory personnel involved in the shipment of biological samples and/or dry ice, completed Biological Material Shipments training? Select N/A if laboratory personnel do not ship biological samples and/or dry ice. ◉ N/A	○ Yes	○ No	○ ?
	B. If yes, have the applicable permits (e.g.., CDC, USDA, APHIS, USDOC) been obtained? ◉ N/A	○ Yes	○ No	○ ?
	C. Other than biological samples and/or dry ice, do laboratory personnel ship any other chemicals? If yes, list the chemicals shipped:	○ Yes	◉ No	○ ?
37.	Has a chemical inventory been submitted to EHS within the past year?	◉ Yes	○ No	○ ?
38.	Are Material Safety Data Sheets (MSDS) available for all laboratory chemicals?	◉ Yes	○ No	○ ?
39.	Is a Health and Safety Door Sign posted at the entrance to all labs and have all signs been reviewed for accuracy within the past year?	◉ Yes	○ No	○ ?

40. Are all chemical containers labeled with the contents?		⊙Yes	○ No	○ ?
41. If chemical abbreviations are used, is a list cross-referencing the full chemical name posted at laboratory entrances?	○N/A	⊙Yes	○ No	○ ?
42. Are biohazard warning signs/labels in use (e.g., on doors, centrifuges, incubators, freezers, cages)?		⊙Yes	○ No	○ ?
WASTE MANAGEMENT				
43. Are only chemical wastes that have been specifically approved by EHS disposed of via drain or trash?		⊙Yes	○ No	○ ?
44. Are all chemical waste containers properly labeled with yellow Hazardous Waste labels containing the contents (full chemical names only)?		⊙Yes	○ No	○ ?
45. Are all chemical waste containers kept closed / sealed when not actively being filled?		⊙Yes	○ No	○ ?
46. Are all chemical waste containers stored in a labeled Chemical Waste Satellite Accumulation Area with secondary containment?		⊙Yes	○ No	○ ?
47. Are all sharps and empty containers contaminated with trace amounts of acutely toxic or noxious chemicals collected as chemical waste for disposal (not allowed in a sharps containers)?		⊙Yes	○ No	○ ?
48. Are all other used and unused needles, syringes, scalpel blades, or any other glass, metal, plastic instruments that can cut or has the potential to cut, puncture, or abrade skin discarded in sharps containers?		⊙Yes	○ No	○ ?
49. Are infectious biological wastes autoclaved or chemically-disinfected prior to disposal?		⊙Yes	○ No	○ ?
50. Are all red bag and sharps wastes maintained and stored within the laboratory until collected (i.e., no storage in corridors)?		⊙Yes	○ No	○ ?
51. Are all dead animals or animal tissue specimens placed in red bags and brought to a RARC approved area? Select N/A if laboratory does not generate animal or tissue specimen wastes.	⊙N/A	○Yes	○ No	○ ?

SECTION IV: ADDITIONAL COMMENTS

SECTION V: CERTIFICATION

The above information is true to the best of my knowledge and inclusive of all work performed. I understand that should the conditions described above change for any reason in a manner that introduces new hazards subsequent to this submission, this form is to be updated and resubmitted.

Principal Investigator electronic signature *Date*

Submission Process

Grant Application: If a Research Safety Checklist has not been submitted within the last year, the Grants and Contracts electronic routing form will prompt the applicant to upload this checklist in the "Additional Documents" section.

All Other Submissions: Email completed checklist to Environmental Health and Safety at ehs@med.cornell.edu.