Laboratory Safety Training: SCS Documentation
Hergenrother Lab – Updated 10/24/17

Name _______________________________ Department/Area _____________ Campus Location ______

PRIOR to beginning any laboratory research, you must do each of the following:

☐ Pass the School of Chemical Sciences Safety Exam after studying the School of Chemical Sciences Chemical Hygiene Plan. A 650/700 is required to pass the exam.

☐ The exam can be taken an unlimited number of times. Score: ______/700

☐ Division of Research Safety (DRS) specific trainings. See attached Laboratory Safety Training: DRS Documentation for required trainings and list of other available trainings (DRS Safety Library).

☐ Complete the Laboratory Safety Training: New Lab Member Safety Walkthrough Checklist with lab safety officer (LSO).

FAMILIARIZE yourself with the location and operation of each of the following items (check off each item):

☐ Nearest Fire Alarm
☐ Other Emergency Alarms
☐ Location and types of fire extinguishers
☐ Personal protective equipment
☐ Hazards specific to the laboratory (lasers, cryogenics, chemical hazards, etc.)
☐ Safety Showers/Eyewash Stations
☐ Spill kits (including chemical spill kits, HF spill kits, Biohazard spill kits, etc.)
☐ Emergency Exits/Evacuation Plan

My signature indicates that I have located and am familiar with the operation of the items listed above:

_____________________________ _________________________ ______
Print Name Legibly Signature Date

Approval to conduct laboratory research work in the School of Chemical Sciences:

_____________________________ _________________________
Principal Investigator (PI) Print Research Group Name Date
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<th>Name _______________________________</th>
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**Part A: The following trainings are required by all personnel before starting work in a lab:**

| ☒ Reading the DRS Laboratory Safety Guide | | |
| ☒ Laboratory Safety Training (DRS online training) | | |
| ☒ Laboratory Specific Orientation |
| ☒ Location and use of safety equipment (PPE, safety shower, eye wash, spill kit, fire extinguisher) | | |
| ☒ Access to safety data sheets and other reference material | | |
| ☒ Lab specific information and policies | | |

**Part B: DRS Trainings Based on the hazards in the laboratory, the P.I./lab manager should check what other trainings have to be completed:**

**DRS Online Trainings** (Completion will be documented in the DRS database)

| ☐ Analytical X-ray Safety | | |
| ☒ Chemical Safety: An Introduction | | |
| ☐ Compressed Gases and Cryogens | | |
| ☐ Hydrofluoric Acid Training | | |
| ☐ Laser Safety | | |
| ☒ NIH Guidelines Overview | | |
| ☐ Radiation Safety Awareness Training | | |
| ☐ Radioactive Materials Safety | | |
| ☐ Transportation of Infectious Substances, Category B | | |
| ☒ Understanding Biosafety | | |

**DRS Live Trainings** (Completion will be documented in the DRS database)

| ☐ Safe Handling of Human Cell Lines/Materials in a Research Lab | | |

**DRS Safety Library** (Read before performing process and document training with initials and date)

**Biological Safety**

| ☐ Biosafety Lab Supplies | | |
| ☐ Biotoxins Management and Handling | | |
| ☐ Protecting Vacuum Lines from Biohazards | | |
| ☐ Storage of Risk Group 2 Biological Materials | | |
Chemical Safety

☐ Aqua Regia
☐ Bases-Hydroxides
☐ Chemical Compatibility
☐ Chemical Hazard Classification (GHS)
☐ Chemical Storage
☐ Compressed Gas Cylinder Safety
☐ Cryogens and Dry Ice
☐ Cyanides
☐ Diazomethane
☐ Flammable Liquids
☐ Formaldehyde
☐ Hydrofluoric Acid (HF)
☐ Labeling Chemicals
☐ Mercury
☐ Mineral Acids
☐ Nanomaterials
☐ Oxidizers
☐ Perchloric Acid
☐ Peroxide-Forming Chemicals
☐ Piranha Solution
☐ Potentially Explosive Experiments
☐ Pyrophoric Materials
☐ Scale-Up Reaction Safety
☐ Sodium Azide

Safety Equipment

☐ Biological Safety Cabinets
☐ Chemical Fume Hoods
☐ Personal Protective Equipment

Laboratory Equipment

☐ Anaerobic Chamber Safety
☐ Autoclave Safety and Operation
☐ Electrical Safety in the Laboratory
☐ Vacuum Safety

Laboratory Procedures/Practices

☐ Laboratory Housekeeping
**Part C: Initial Lab Specific Training** - The following are trainings developed in the lab and must be completed before beginning work. (e.g., Standard Operating Procedures, lab policies, other trainings developed by lab)

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<thead>
<tr>
<th>Description of Training</th>
<th>Provided By</th>
<th>Date and Initials</th>
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<tbody>
<tr>
<td>Lab Safety Walkthrough with LSO</td>
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<tr>
<td>Ozonolysis SOP (when applicable)</td>
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<td>Hydrogenation SOP (when applicable)</td>
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**Part D: Ongoing Training** - The following is documentation of additional safety trainings that were not available or not required during the initial safety training. (e.g., Safety refreshers, new DRS trainings)

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☐ Laboratory-specific Chemical Hygiene Plan (CHP):
   Location: Outer office of RAL 261, Hergenrother Lab Wiki
   Contents: DRS Laboratory Safety Guide (also available online), SOPs, safety documentation

☐ Location of MSDSs and SOPs
   MSDSs: online from manufacturer’s websites
   SOPs: See DRS website and safety folder on the group share

☐ Emergency information: Spills, Personal Injury, Fire, and Power Failure.
   ☐ Fire extinguisher (Pull the pin, Aim at the base, Squeeze trigger, and Sweep)
   ☐ Fire alarms and other alarms
   ☐ Emergency exits and Building Emergency Action Plan (BEAP)
   ☐ Safety showers and Eye wash stations
   ☐ Spill Kits and first aid supplies

☐ Personal Protective Equipment (PPE)
   ☐ Chemistry: Safety glasses, gloves, and lab coats (blue) are required at all times.
   ☐ Biology: Gloves are required at all times. Lab coats (white) are required when working in biosafety cabinets with mammalian cells (RAL 233A) or pathogenic bacteria (RAL 249).

☐ Waste Handling Procedures.
   ☐ Jerrican pick up program for general halogenated and non-halogenated organic waste.
   ☐ Each researcher is responsible for submitting individually generated waste (e.g. heavy metal waste, sodium azide waste, etc.), talk to LSO for training.
   ☐ Each researcher who generates biological waste will be trained and added to the autoclave waste rotation.

☐ Chemical procurement, distribution, and storage.

☐ Lab Specific Safety Rules
   ☐ Discuss what special hazards/precautions you will need to follow in your research with your research advisor and/or safety officer.
   ☐ When using a high hazard reagent/process for the first time: 1) read the associated DRS training material or lab specific SOP, 2) initial/date in the DRS Training Documentation section, and 3) ask a senior graduate student or post doc to show and/or shadow you.
   ☐ Headphones are allowed in lab, but must be able to hear surrounding noise in case of emergencies.
   ☐ Food consumption is allowed at your desk and in the breakroom. No food consumption allowed in front of bench/hood space or in 233 RAL.
   ☐ Active chemistry is allowed after hours if someone else is present in lab.

RETURN COMPLETED FORM TO LAB SAFETY OFFICER FOR FILING IN IN GROUP SAFETY MANUAL
Updated by Hergenrother Lab Safety Officer on 10/19/17