PROJECT HAZARD ASSESSMENT FORM

PI/SPONSOR:
Completion of the following form will serve as a risk assessment, personal protective equipment (PPE) assessment and guide to required training for the activities in which minors will be engaged. EH&S training courses may be accessed at http://ehs.uky.edu/classes/. Include a copy of this assessment form when submitting the completed Minors Research Proposal Registration Form to EH&S.

PARENT/LEGAL GUARDIAN:
Scientific research involves exposure to various hazards. When deciding to allow your child to participate in research projects conducted in University of Kentucky laboratories, greenhouses or animal facilities, you need to be aware of the potential hazards he or she may encounter. The project hazard assessment below provides a description of the hazards your child may encounter. Questions regarding these hazards may be addressed to the minor's specific PI/sponsor. If you have any further questions or concerns regarding this information, please contact the Director of Occupational Health and Safety (Lee Poore at lpoor2@email.uky.edu or 257-2924) or the Biological Safety Officer (Brandy Nelson at brandy.nelson@uky.edu or 257-1049).

Are the following activities performed in the lab?		CHEMICAL HAZARDS			
Yes	No	Activity	Potential Hazard	Applicable PPE	Required EH&S Training Courses
☐	☐	Working with small volumes (<4 liters) of corrosive liquids.	Eye or skin damage.	Safety glasses or goggles. Light chemical-resistant gloves. Lab coat.	Chemical Hygiene Plan/Lab Safety Hazardous Waste
☐	☐	Working with large volumes (>4 liters) of corrosive liquids, small to large volumes of acutely toxic corrosives, or work which creates a splash hazard.	Poisoning, increased potential for eye and skin damage.	Safety goggles. Heavy chemical-resistant gloves. Lab coat and chemical-resistant apron.	Chemical Hygiene Plan/Lab Safety Hazardous Waste
☐	☐	Working with small volumes (<4 liters) of organic solvents or flammable organic compounds.	Skin or eye damage, potential poisoning through skin contact.	Safety glasses or goggles. Light chemical-resistant gloves. Lab coat.	Chemical Hygiene Plan/Lab Safety Hazardous Waste
☐	☐	Working with large volumes (>4 liters) of organic solvents, small to large volumes of very dangerous solvents, or work which creates a splash hazard.	Major skin or eye damage, potential poisoning through skin contact. Fire.	Safety goggles. Heavy chemical-resistant gloves. Flame-resistant lab coat (e.g. Nomex).	Chemical Hygiene Plan/Lab Safety Hazardous Waste
☐	☐	Working with toxic or hazardous chemicals (solid, liquid, or gas).	Skin or eye damage, potential poisoning through skin contact.	Safety glasses (goggles for large quantities). Light chemical-resistant gloves. Lab coat.	Chemical Hygiene Plan/Lab Safety Hazardous Waste
☐	☐	Working with acutely toxic or hazardous chemicals (solid, liquid, or gas).	Increased potential for eye or skin damage, increased potential poisoning through skin contact.	Safety goggles. Heavy chemical-resistant gloves. Lab coat.	Chemical Hygiene Plan/Lab Safety Hazardous Waste

☐	☐	Working with an apparatus with contents under pressure or vacuum.	Eye or skin damage.	Safety glasses or goggles, face shield for high risk activities. Chemical-resistant gloves. Lab coat, chemical-resistant apron for high risk activities.	Chemical Hygiene Plan/Lab Safety Hazardous Waste
☐	☐	Working with air or water reactive chemicals.	Severe skin and eye damage. Fire.	Work in inert atmosphere, when possible. Safety glasses or goggles. Chemical-resistant gloves. Lab coat, flame resistant lab coat for high risk activities (e.g. Nomex). Chemical-resistant apron for high risk activities.	Chemical Hygiene Plan/Lab Safety Hazardous Waste
☐	☐	Working with potentially explosive chemicals.	Splash, detonation, flying debris, skin & eye damage. Fire.	Safety glasses, face shield, and blast shield. Heavy gloves. Flame-resistant lab coat (e.g. Nomex).	Chemical Hygiene Plan/Lab Safety Hazardous Waste
☐	☐	Working with low and high temperatures.	Burns, splashes. Fire.	Safety glasses. Lab coat. Thermal insulated gloves, when needed.	Chemical Hygiene Plan/Lab Safety Hazardous Waste
☐	☐	Minor chemical spill cleanup.	Skin or eye damage, respiratory damage.	Safety glasses or goggles. Chemical-resistant gloves. Lab coat. Chemical-resistant apron and boot/shoe covers for high risk activities. Respirator as needed. Consider keeping Silver Shield gloves in the lab spill kit.	Chemical Hygiene Plan/Lab Safety Hazardous Waste
Are the following activities performed in the lab?		**BIOLOGICAL HAZARDS**			
Yes	No	Activity	Potential Hazard	Applicable PPE	Required EH&S Training Courses
☐	☐	Working with human blood, body fluids, tissues, or other potentially infectious material.	Exposure to infectious material.	Safety goggles with face shield, latex or nitrile gloves, lab coat or gown. Use of biological safety cabinet for aerosol generating procedures.	Chemical Hygiene Plan/Lab Safety Hazardous Waste Bloodborne Pathogens for Researchers
☐	☐	Working with animal and/or human specimens, with or without preservatives.	Exposure to infectious material or preservatives.	Safety glasses or goggles, latex or nitrile gloves for unpreserved specimens (select protective glove for preserved specimens according to preservative used), lab coat or gown.	Chemical Hygiene Plan/Lab Safety Hazardous Waste Bloodborne Pathogens for Researchers (Human Specimens)

☐	☐	Working with agents or recombinant DNA handled at Biosafety Level 1 (BSL-1).	Eye or skin irritation. Potential for infection in immunocompromised individuals.	Safety glasses or goggles for protection from splash or other eye hazard, latex or nitrile gloves, lab coat or gown.	Chemical Hygiene Plan/Lab Safety Hazardous Waste Biological Safety
☐	☐	Manipulation of cell lines, viruses, bacteria, or other organisms handled at Biosafety Level 2 (BSL-2).	Exposure to infectious material, particularly through broken skin, mucous membranes or ingestion.	Safety glasses or goggles for protection from splash or other eye hazard, latex or nitrile gloves, lab coat or gown. Use of a biological safety cabinet.	Chemical Hygiene Plan/Lab Safety Hazardous Waste Biological Safety
Are the following activities performed in the lab?		**ANIMAL USE HAZARDS**			
Yes	No	Activity	Potential Hazard	Applicable PPE	Required EH&S Training Courses
☐	☐	Working with live animals.	Animal bites, allergies.	Safety glasses or goggles for protection from splash or other eye hazard, latex, nitrile or vinyl gloves for broken skin or skin rash, lab coat or gown. Consider need for other protective equipment based upon species and procedures. Minors must be added to Institutional Animal Care and Use Committee (IACUC) protocols.	Chemical Hygiene Plan/Lab Safety Hazardous Waste
☐	☐	Working with live animals in combination with other hazards (e.g., chemical hazards, infectious or recombinant biological material).5	Animal bites, allergies, exposure to other hazards.	Same applicable PPE as above with provisions for additional PPE and procedures as associated with the other hazard.	Chemical Hygiene Plan/Lab Safety Hazardous Waste
Are the following activities performed in the lab?		**NANOMATERIAL HAZARDS**			
Yes	No	Activity	Potential Hazard	Applicable PPE	Required EH&S Training Courses
☐	☐	Working with engineered nanomaterials.	Inhalation, exposure, dermal exposure.	Goggles, gloves, lab coat.	Chemical Hygiene Plan/Lab Safety Hazardous Waste
Are the following activities performed in the lab?		**RADIOLOGICAL HAZARDS** **MINORS ARE PROHIBITED FROM THESE ACTIVITIES**			
Yes	No	Activity	Potential Hazard	Applicable PPE	Required EH&S Training Courses
		Working with solid radioactive materials or waste.	Cell damage, potential spread of radioactive materials.	Safety glasses, impermeable gloves, lab coat.	

		Working with radioactive materials in hazardous chemicals (corrosives, flammables, liquids, powders, etc.).	Cell damage or spread of contamination plus hazards for the specific chemical.	Safety glasses (or goggles for splash hazard), light chemical-resistant gloves, lab coat. Note: Select glove for the applicable chemical hazards above.	
		Working with ultraviolet radiation.	Conjunctivitis, corneal damage, skin redness.	UV face shield and goggles, lab coat.	
		Working with infrared emitting equipment (e.g. glass blowing).	Cataracts, burns to cornea.	Appropriate shaded goggles, lab coat.	
Are the following activities performed in the lab?		**LASER HAZARDS**			
Yes	No	Activity	Potential Hazard	Applicable PPE	Required EH&S Training Courses
Open Beam					
☐	☐	Performing alignment, trouble-shooting or maintenance that requires working with an open beam and/or defeating the interlock(s) on any Class 3 or Class 4 laser system.	Eye damage.	Appropriately shaded goggles/glasses with optical density based on individual beam parameters.	Chemical Hygiene Plan/Lab Safety Hazardous Waste Laser Safety
☐	☐	Viewing a Class 3R laser beam with magnifying optics (including eyeglasses).	Eye damage.	Appropriately shaded goggles/glasses with optical density based on individual beam parameters.	Chemical Hygiene Plan/Lab Safety Hazardous Waste Laser Safety
☐	☐	Working with a Class 3B laser open beam system with the potential for producing direct or specular reflections.	Eye damage, skin damage.	Appropriately shaded goggles/glasses with optical density based on individual beam parameters, appropriate skin protection.	Chemical Hygiene Plan/Lab Safety Hazardous Waste Laser Safety
☐	☐	Working with a Class 4 laser open beam system with the potential for producing direct, specular, or diffuse reflections.	Eye damage, skin damage.	Appropriately shaded goggles/glasses with optical density based on individual beam parameters, appropriate skin protection.	Chemical Hygiene Plan/Lab Safety Hazardous Waste Laser Safety
Non-Beam					
☐	☐	Handling dye laser materials, such as powdered dyes, chemicals, and solvents.	Cancer, explosion, fire.	Gloves, safety glasses, flame-resistant lab coat or coveralls.	Chemical Hygiene Plan/Lab Safety Hazardous Waste Laser Safety
☐	☐	Maintaining and repairing power sources for large Class 3B and Class 4 laser systems.	Electrocution, explosion, fire.	Electrical isolation mat, flame-resistant lab coat or coveralls.	Chemical Hygiene Plan/Lab Safety Hazardous Waste Laser Safety

Are the following activities performed in the lab?		PHYSICAL HAZARDS			
Yes	No	Activity	Potential Hazard	Applicable PPE	Required EH&S Training Courses
☐	☐	Working with cryogenic liquids.	Major skin, tissue, or eye damage.	Safety glasses or goggles for large volumes, impermeable insulated gloves, lab coat.	Chemical Hygiene Plan/Lab Safety Hazardous Waste
☐	☐	Removing freezer vials from liquid nitrogen	Vials may explode upon rapid warming. Cuts to face/neck and frostbite to hands.	Face shield, impermeable insulated gloves, lab coat.	Chemical Hygiene Plan/Lab Safety Hazardous Waste
☐	☐	Working with very cold equipment or dry ice.	Frostbite, hypothermia.	Safety glasses, insulated gloves (possibly warm clothing), lab coat.	Chemical Hygiene Plan/Lab Safety Hazardous Waste
☐	☐	Working with hot liquids, equipment, open flames (autoclave, Bunsen burner, water bath, oil bath).	Burns resulting in skin or eye damage.	Safety glasses or goggles for large volumes, insulated gloves (impermeable insulated gloves for liquids, steam), lab coat.	Chemical Hygiene Plan/Lab Safety Hazardous Waste
☐	☐	Glassware washing.	Lacerations.	Heavy rubber gloves, lab coat.	Chemical Hygiene Plan/Lab Safety Hazardous Waste
☐	☐	Working with loud equipment, noises, sounds, alarms, etc.	Potential ear damage and hearing loss.	Earplugs or ear muffs as necessary.	Chemical Hygiene Plan/Lab Safety Hazardous Waste
☐	☐	Working with a centrifuge.	Imbalanced rotor can lead to broken vials, cuts, exposure.	Safety glasses or goggles, lab coat, latex, vinyl, or nitrile gloves.	Chemical Hygiene Plan/Lab Safety Hazardous Waste
☐	☐	Working with a sonicator.	Ear damage, exposure.	Safety glasses or goggles, lab coat, latex, vinyl, or nitrile gloves, ear plugs.	Chemical Hygiene Plan/Lab Safety Hazardous Waste
☐	☐	Working with sharps.	Cuts, exposure.	Safety glasses or goggles, lab coat, latex, vinyl, or nitrile gloves.	Chemical Hygiene Plan/Lab Safety Hazardous Waste