Minors in Research Project Registration

Environmental Health & Safety

PI Name:

Minor Name:

PROJECT DESCRIPTION

Please summarize the research project(s) that the Minor will be working on in the research laboratory/animal facility. Briefly describe the scope of the project(s) for a lay audience. Include a description of all planned manipulations/assays, and identify all relevant hazards (animal, biological, chemical, physical, etc.). Research procedures should be described briefly and sequentially. Identify the risks and hazards presented by the procedures and materials in use. Specify the risk mitigation procedures in place to mitigate identified risks.

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PROJECT HAZARD RISK ASSESSMENT

PI/Sponsor: Completion of this form will serve as a hazard risk assessment, personal protective equipment (PPE) assessment, and a guide to what training is required for the activities in which the minor will be engaged. UK EH&S training modules are available online - https://ehs.uky.edu/classes/. A UK Linkblue ID account is required to complete online training modules.

Parent/Legal Guardian: Scientific research involves potential exposure to various hazards. When deciding to allow your child to participate in research projects conducted in University of Kentucky laboratories, greenhouses, animal or farm facilities, you need to be aware of the potential hazards they may encounter. The Project Hazard Risk Assessment form below provides a description of the hazards your child may encounter. Questions regarding these hazards may be directed to the minor's specific PI/Sponsor. If you have further questions or concerns regarding this information, please email biosafety@uky.edu.

Chemical Hazards

UK EH&S requires everyone utilizing chemical hazards to complete UK Chemical Hygiene Plan/Lab Safety training AND Hazardous Waste training, available online here.

Please check the box for each activity listed below that will be performed in the research project:

	Activity	Potential Hazard(s)	Applicable PPE
☐	Working with small volumes (<4 liters) of corrosive liquids	Eye or skin damage	Safety glasses/goggles, gloves (light chemical-resistant), lab coat
☐	Working with large volumes (>4 liters) of corrosive liquids, small-large volumes of acutely toxic corrosives, or work which creates a splash hazard	Poisoning, increased potential for eye and/or skin damage	Safety goggles, gloves (heavy chemical-resistant), lab coat, apron (chemical-resistant)
☐	Working with small volumes (<4 liters) of organic solvents or flammable organic	Eye or skin damage, potential poisoning via skin contact	Safety glasses/goggles, gloves (light chemical-resistant), lab coat
☐	Working with large volumes (>4 liters) of organic solvents, small-large volumes of very dangerous solvents, or work which creates a splash hazard	Major eye or skin damage, potential poisoning via skin contact, fire	Safety goggles, gloves (heavy chemical-resistant), lab coat (flame-resistant, ex. Nomex)
☐	Working with toxic or hazardous chemicals (solid, liquid, or gas)	Eye or skin damage, potential poisoning via skin contact	Safety glasses (googles for large quantities), gloves (light chemical-resistant), lab coat
☐	Working with acutely toxic or hazardous chemicals (solid, liquid, or gas)	Increased potential for eye or skin damage, increased potential for poisoning via skin contact	Safety goggles, gloves (heavy chemical-resistant), lab coat
☐	Working with an apparatus with contents under pressure or vacuum	Eye or skin damage	Safety glasses/goggles (face shield for high-risk activities), gloves (chemical-resistant), lab coat (and chemical-resistant apron for high risk activities)
☐	Working with air or water reactive chemicals	Severe eye or skin damage, Fire	Work in inert atmosphere (if possible), safety glasses/goggles, chemical-resistant gloves, lab coat (flame-resistant for high risk activities), chemical-resistant apron for high risk activities

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Chemical Hazards (continued)
UK EH&S requires everyone utilizing chemical hazards to complete UK Chemical Hygiene Plan/Lab Safety training AND Hazardous Waste training, available online here.

Please check the box for each activity listed below that will be performed in the research project:

	Activity	Potential Hazard(s)	Applicable PPE
☐	Working with potentially explosive chemicals	Splash, detonation, flying debris, eye & skin damage, fire	Safety glasses, face shield, blast shield, heavy gloves, flame-resistant lab coat
☐	Working with low and/or high temperatures	Burns, splashes, fire	Safety glasses/goggles, lab coat, thermal insulated gloves (when necessary)
☐	Minor chemical spill cleanup	Eye or skin damage, respiratory damage	Safety glasses/goggles, chemical-resistant gloves, lab coat, chemical-resistant apron and boot/shoe covers for high risk activities, respirator (as needed) *NOTE - consider keeping Silver Shield gloves in lab spill kit.

Biological Hazards
UK EH&S requires everyone utilizing biological hazards to complete Biological Safety training, Chemical Hygiene Plan/Lab Safety training, Hazardous Waste training, AND Blood Borne Pathogens (BBP) training (if utilizing human source materials such as blood, blood products, or other potentially infectious materials including humans cells and tissues), available online here.

Please check the box for each activity listed below that will be performed in the research project:

	Activity	Potential Hazard(s)	Applicable PPE
☐	Working with human blood, body fluids, or other potentially infectious materials	Exposure to infectious material	Safety goggles with face shield, latex/nitrile gloves, lab coat or gown *NOTE - Use of a Biological Safety Cabinet (BSC) required for aerosol generating procedures
☐	Working with animal and/or human specimens, with or without preservatives	Exposure to infectious material or preservatives	Safety glasses/goggles, latex/nitrile gloves for unpreserved specimens (select protective glove for preserved specimens according to preservative used), lab coat or gown
☐	Working with agents or recombinant/synthetic nucleic acid materials handled at Biosafety Level 1 (BSL-1)	Eye or skin irritation, potential for infection in immunocompromised individuals	Safety glasses/goggles, latex/nitrile gloves, lab coat or gown
☐	Manipulation of cell lines, viruses, bacteria, or other organisms handled at Biosafety Level 2 (BSL-2)	Exposure to infectious material, particularly via broken skin, mucous membranes or ingestion	Safety glasses/goggles, latex/nitrile gloves, lab coat or gown, use of a Biological Safety Cabinet (BSC)

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Animal Use Hazards

*UK EH&S requires everyone utilizing animals to complete Chemical Hygiene Plan/Lab Safety training AND Hazardous Waste training, available online here. *NOTE - Minors must be added to Institutional Animal Care & Use Committee (IACUC) protocol(s).*

Please check the box for each activity listed below that will be performed in the research project:

	Activity	Potential Hazard(s)	Applicable PPE
☐	Working with live animals	Animal bites, allergies	Safety glasses/goggles, latex/nitrile/vinyl gloves, lab coat or gown *NOTE - Consider need for other protective equipment based on the species and procedures
☐	Working with live animals in combination with other hazards (e.g. chemical hazards, biological hazards)	Animal bites, allergies, exposure to other hazards	Same applicable PPE as listed above with provisions for additional PPE and procedures associated with other hazards

Nanomaterial Hazards

UK EH&S requires everyone utilizing nanomaterial hazards to complete Chemical Hygiene Plan/Lab Safety training and Hazardous Waste training, available online here.

Please check the box for each activity listed below that will be performed in the research project:

	Activity	Potential Hazard(s)	Applicable PPE
☐	Working with engineered nanomaterials	Inhalation exposure, dermal exposure	Safety goggles, gloves, lab coat

Radiological Hazards

***Minors are prohibited from all activities utilizing radiological hazards**, including working with solid radioactive materials/waste, working with radioactive materials in hazardous chemicals (i.e. corrosives, flammables, liquids, powders), working with ultraviolet radiation, and working with infrared emitting equipment*

Laser Hazards

UK EH&S requires everyone utilizing laser hazards to complete Chemical Hygiene/Lab Safety training, Hazardous Waste training, and Laser Safety training, available online here.

Please check the box for each activity listed below that will be performed in the research project:

(Open Beam)

	Activity	Potential Hazard(s)	Applicable PPE
☐	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
☐	Viewing a Class 3R laser beam with magnifying optics (including eye glasses)	Eye damage	Appropriately shaded goggles/glasses with optical density based on individual beam parameters

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Minor Name:

Laser Hazards (continued)

UK EH&S requires everyone utilizing laser hazards to complete Chemical Hygiene/Lab Safety training, Hazardous Waste training, and Laser Safety training, available online here.

Please check the box for each activity listed below that will be performed in the research project:

(Open Beam)

	Activity	Potential Hazard(s)	Applicable PPE
☐	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
☐	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

(Non-Beam)

	Activity	Potential Hazard(s)	Applicable PPE
☐	Handling dye laser materials, such as powdered dyes, chemicals, and solvents	Cancer, explosion, fire	Safety glasses/goggles, gloves, flame-resistant lab coat or coveralls
☐	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

Physical Hazards

UK EH&S requires everyone utilizing physical hazards to complete Chemical Hygiene/Lab Safety training and Hazardous Waste training, available online here.

Please check the box for each activity listed below that will be performed in the research project:

	Activity	Potential Hazard(s)	Applicable PPE
☐	Working with cryogenic liquids	Major skin, tissue, or eye damage	Safety glasses or goggles (for large volumes), impermeable insulated gloves, lab coat
☐	Removing freezer vials from liquid nitrogen	Vials may explode upon rapid warming, cuts to face/neck due to vial explosion, frostbite to hands	Face shield, impermeable insulated gloves, lab coat
☐	Working with very cold equipment or dry ice	Frostbite, hypothermia	Safety glasses, insulated gloves, lab coat, possibly warm clothing
☐	Working with hot liquids, equipment, open flames (i.e. 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
☐	Glassware washing	Lacerations	Heavy rubber gloves, lab coat

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Physical Hazards (continued)

UK EH&S requires everyone utilizing physical hazards to complete Chemical Hygiene/Lab Safety training and Hazardous Waste training, available online here.

Please check the box for each activity listed below that will be performed in the research project:

	Activity	Potential Hazard(s)	Applicable PPE
☐	Working with loud equipment, noises, sounds, alarms, etc.	Potential ear damage and hearing loss	Earplugs or ear muffs as necessary
☐	Working with a centrifuge	Imbalanced rotor can lead to broken vials, cuts, exposure	Safety glasses/goggles, lab coat, latex/vinyl/nitrile gloves
☐	Working with a sonicator	Ear damage, exposure	Safety glasses/goggles, lab coat, latex/vinyl/nitrile gloves
☐	Working with sharps	Cuts, exposure	Safety glasses/goggles, lab coat, latex/vinyl/nitrile gloves

Minors in Research Project Registration - Consent/Signature

Environmental Health & Safety

PI Name:

Minor Name:

PI/Sponsor

I agree to sponsor (Name of Minor) and, by my signature below, agree to the following:

- I have read, understand, and will adhere to the University of Kentucky (UK) Minors in Research Laboratories or Animal Facilities Policy (http://ehs.uky.edu/docs/pdf/ohs_minors_in_labs_0001.pdf). Approval from UK Environmental Health & Safety (EH&S) must be granted before the Minor may participate in any research activities.
- I will provide the minor with Laboratory Specific Training, specific to the laboratory hazards associated with the Minor's research project.
- I will provide personal protective equipment (PPE) appropriate and specific to the laboratory hazards present.
- This Minor will be supervised at all times while in the laboratory. The Minor will never be left unsupervised.
- This Minor's hours of work will comply with Federal Regulation 29 CFR 570.35.
- My laboratory is in full compliance with all applicable UK safety programs and regulations.

PI/Sponsor Name (printed) PI/Sponsor Signature

PI/Sponsor Email Date of Signature

Minor Student

By my signature below, I agree to the following:

- I have read and understand this policy and the risk assessment section explaining the hazards associated in this research project.
- I will adhere to the UK Minors in Research Laboratories or Animal Facilities Policy (http://ehs.uky.edu/docs/pdf/ohs_minors_in_labs_0001.pdf) in order to best protect myself and those around me from accidental exposures and/or incidents.

Minor Student Name (printed) Minor Student Signature

Minor Student Email Date of Signature

Parent/Legal Guardian

By my signature below, I agree to the following:

- I have read and understand this policy and the risk assessment section explaining the hazards associated with my child's research project.
- I agree and understand that my child's research project may be suspended at any time, at the discretion of the University of Kentucky and its officers, agents, and employees, if the safety of my child, UK employees and/or other volunteers at UK becomes a concern.

Parent/Legal Guardian Name (printed) Parent/Legal Guardian Signature

Parent/Legal Guardian Email Date of Signature

*Once this form has been completed, submit the form here. Incomplete submissions will be returned to the PI/Sponsor.

University of Kentucky
Minors in Research
Assumption of Risk and Waiver of Liability

I hereby acknowledge and record my independent and voluntary decision to participate in the activities conducted by the University of Kentucky Environmental Health & Safety.

I understand that my participation in this activity may entail certain anticipated and unanticipated risks regarding personal injury.

I hereby acknowledge my voluntary and informed assumption of full responsibility and liability regarding any injuries that I may incur coincident to my participation in this activity.

I hereby assume any and all risks associated with the event and expressly waive, release, discharge and hold harmless, the University of Kentucky, its trustees, directors, officers, agents, employees and assigns from and against any and all liability for loss, damage, injury, illness or claim of any nature whatsoever, however caused, arising out of, in association with, or related in any way to my participation in this activity.

I further acknowledge and affirm that as a participant in this activity, I am not an employee of the University of Kentucky. Thus, I am not entitled to any benefits of the aforementioned, including, but not limited to coverage by the Worker's Compensation Act.

I also agree to follow all University of Kentucky policies and procedures and any applicable laws of the state in which activities take place.

Participant's Name	Signature	Date

A PARENT OR GUARDIAN MUST SIGN THIS FORM FOR A MINOR UNDER THE AGE OF 18

Parent/Guardian's Name	Signature	Date