

### **Form 1: Checklist for Adult Sponsor**

Adult Sponsor Checklist is intended to help the adult sponsor through the rest of the paperwork process. This completed form is required for ALL projects. This form must be completed by the Adult Sponsor (Educator/Teacher) in collaboration with the student researcher(s). Responses on this form will trigger the population of other required forms. This form should be completed first.

If the research is being completed in a regulated research institution, you will be required to enter the name and contact information of the supervising qualified scientist on this form.

### **Form 1A: Student Checklist**

Form 1A Student Checklist is intended to summarize the proposed project from the student's point of view. This completed form is required for ALL projects. Form 1A should be completed by the student researcher(s). Only one form is required per group in the case of a group project.

The most important part of this form is the research plan. The attached research plan must detail the rationale, research question(s), methodology, and risk assessment of the proposed research and must include a bibliography with at least 5 high quality scientific references cited in APA, MLA or another recognized format. Bibliographies consisting of only web site addresses will not be accepted.

This form will remain in Pending Completion status until all other forms are completed and all signatures have been obtained. The date you list as the laboratory experiment/data collection start date must be later than all of the dates next to the signatures on your other forms. If all of your forms are in Ready to Review Status except for this one, check your start date.

### **Form 1B: Approval Form**

Form 1B is intended to ensure that responsible adults have reviewed the student's project and the ISEF/PRSEF rules and consent to the proposed procedures. This completed form is required for each student. In the case of a group project, all team members must complete their own copy of this form. This form requires the signature of both the student and the parent/guardian responsible for the student acknowledging that they are familiar with the risks and possible dangers of the project.

### **Form 1C: Regulated Research Institutional/Industrial Setting Form (1C)**

This form is only required for projects which have been conducted in a regulated research institution, industrial setting or work site other than home, school or field. It must be completed by the adult supervising the student research AFTER experimentation and before the date of the fair. If it is required, this form will be populated on the form after the scientific review committee (SRC) reviews the project.

### **Form 2: Qualified Scientist Form**

Form 2 is used to ensure that student researchers who are working in a regulated research institution have the support and guidance of a qualified supervisor. This form is required of all projects which are conducted in a regulated research institution. It may also be required for research involving human participants, vertebrate animals, potentially hazardous biological agents, and hazardous substances and devices. This form must be completed and signed by the qualified scientist or designated supervisor before the start of student experimentation. The student and educator/teacher may not complete this form. This form is available from the student and educator/teacher profiles for reference purposes only.

As defined by the International Science and Engineering Fair (ISEF) and the Society for Science & the Public, **the Qualified Scientist** has the following qualifications and responsibilities.

**Qualifications:** Earned a doctoral/professional degree in a scientific discipline related to student's area of research AND/OR Individual with extensive experience and expertise in the student's area of research. Must be thoroughly familiar with the following regulations that govern the student's area of research including all local, state, Federal and if applicable, non-U.S. national regulations and laws. Can also serve as the Adult Sponsor, if that person meets both sets of qualifications

May live elsewhere and not be local to the student, in which case, a Designated Supervisor has been appointed and trained to serve as the onsite supervision as necessary for the specific student project.

**Responsibilities:** Reviewing the ISEF rules relevant to the project and approving the student's research plan or engineering design prior to the start of experimentation. Providing direct supervision throughout the timeline of the project or coordinating with a Designated Supervisor to serve in this capacity.

Ensuring the proper training of the Student Researcher and/or Designated Supervisor in the necessary procedures. Completing the required documentation which may include the Regulated Research Institutional Setting Form (1C), the Qualified Scientist Form (2) and the Risk Assessment Form (3), when applicable.

**The Designated Supervisor** must meet the following qualifications and assume the following responsibilities:

**Qualifications:** Does not need an advanced degree. Must be familiar with the student's project and agree to any training necessary. May also serve as the Adult Sponsor for the project. If the project involves the use of Vertebrate Animals (where behavior/habitat is influenced by humans), must be knowledgeable about the humane care and handling of the animals

**Responsibilities:** Providing direct supervision of the student experimentation. Completing the required documentation — the Designated Supervisor box on the Qualified Scientist Form (2) when applicable. Reviewing and completing the Risk Assessment Form (3) when needed.

### **Form 3: Risk Assessment Form**

Form 3 Risk Assessment is designed to uncover any risks to the safety of the student or others involved in the project and to ensure that those risks are addressed in a way which ensures the safety of all parties. This form is required for all projects regardless of the level of risk involved. Questions 1, 4 and 5 may not be applicable to all projects; enter N/A in those fields when necessary. Questions 2 and 3 should contain robust responses.

This form must be completed **before** experimentation. The student researcher should be the primary individual responsible for completing this form, but may receive advice and assistance from the educator/teacher and/or the qualified scientist. This form is available for editing by each of the parties listed above.

### **Form 4: Human Participants Form**

Form 4 is intended to ensure the safety and well-being of all human participants in studies conducted by the student researcher(s). This form is only required for research involving human participants not at a Regulated Research Institution. If at a Regulated Research Institution, use institutional approval forms

for documentation of prior review and approval. IRB approval is required **before** recruitment or data collection.

The student will need the assistance of the members of the local IRB. The local IRB can be a formal group or can consist of relevant individuals who come together solely for the purposes of approving this project. The local IRB must evaluate the risk level of the project and the need for informed consent or written parental permission in addition to providing their signatures.

### **Form HIC - The Human Informed Consent form**

An informed consent/assent/permission form should be developed by the student researcher in consultation with the Adult Sponsor, Designated Supervisor or Qualified Scientist. This form is used to provide information to the research participant (or parent/guardian) and to document written informed consent, minor assent, and/or parental permission. If the form is serving to document parental permission, a copy of any survey or questionnaire must be attached.

This form must be completed before Form 4 as it is a required attachment to Form 4. The Covestro PRSEF scientific review committee and fair office do not require signed copies of this form. The committee will review the form as it will be present to the participant in the study.

When written documentation is required, the researcher keeps the original, signed form. The student should collect and retain the hard copies of the signed forms until after the date of the fair. If the form is serving to document parental permission, a copy of any survey or questionnaire must be attached.

### **Form 5A: Vertebrate Animal Form**

The Vertebrate Animal Form (5A) is required for all research involving vertebrate animals that is conducted in a school/home/field research site. Vertebrate animals, as covered by these rules, are defined as: 1. Live, nonhuman vertebrate mammalian embryos or fetuses, 2. Tadpoles, 3. Bird and reptile eggs within three days (72 hours) of hatching, 4. All other nonhuman vertebrates (including fish) at hatching or birth. Exception: Because of their delayed cognitive neural development, zebrafish embryos are not considered vertebrate animals until 7 days (168 hours) post- fertilization.

Form 5B is used required for all research involving vertebrate animals that is conducted in a regulated research institution.

There are several steps the process of completing form 5A. Initial information must be provided on Form 5A by the student researcher. The scientific review committee (SRC) will then review the project and determine the level of supervision necessary (veterinarian, qualified scientist or designated supervisor). Once the project has been reviewed, the student will need to provide contact information for the appropriate supervisor as required by the SRC and that supervisor will need to review the form and provide their signature. The SRC will then review the project again and give their final approval. Final SRC approval must be obtained **before** experimentation begins.

### **Form 5B: Vertebrate Animal Form (5B)**

Form 5B is required for all research involving vertebrate animals that is conducted in at a Regulated Research Institution. IACUC approval is required before experimentation. Form 5B must be completed

and submitted for review **before** experimentation and updated after as applicable after experimentation.

This form is visible to educators/teachers and to students for reference purposes, but must be completed by the supervising qualified scientist at the regulated research institution.

#### **Form 6A: Potentially Hazardous Biological Agents Risk Assessment Form**

This form is required for research involving microorganisms, rDNA, fresh/frozen tissue (including primary cell lines, human and other primate established cell lines and tissue cultures), blood, blood products and body fluids. If the experiment is being conducted at school, SRC approval is required **before** experimentation. If the experiment is being conducted at a regulated research institution, SRC/IACUC/IBC approval is required **before** experimentation.

Form 6A must be completed by the qualified scientist or designated supervisor in collaboration with the student researcher(s). All questions are applicable and must be answered; additional page(s) may be attached. This form is editable by the educator/teacher, the student and the qualified scientist or designated supervisor.

#### **Form 6B: Human and Vertebrate Animal Tissue Form**

This form is required for research involving fresh/frozen tissue (including primary cell lines, human and other primate established cell lines and tissue cultures), blood, blood products and body fluids. If the research involves living organisms please ensure that the proper human forms (Form 4 and HIC) or animal forms (Form 5A or 5B) are completed. All projects using any tissue listed above must also complete Form 6A.

This form must be completed by the student and then acknowledged and signed by the qualified scientist or designated supervisor. Form 6B is viewable and editable by the educator/teacher, the student and the qualified scientist or designated supervisor. SRC approval is required **before** experimentation.

#### **Form 7: Continuation/Research Progression Projects Form**

Form 7 is required for projects that are a continuation/progression in the same field of study as a previous project. The student must use this form to describe the similarities and differences between the two projects. This form must be accompanied by the previous year's abstract and Research Plan/Project Summary.