Checklist for Adult Sponsor (1)

This completed form is required for ALL projects and must be completed prior to experimentation

To be completed by the Adult Sponsor in collaboration with the student researcher:

Student's Name: _____

Project Title: _____

1) ☐ I have reviewed the ISEF Rules and Guidelines.

2) ☐ I have reviewed the student's completed Student Checklist (1A) and Research Plan.

3) ☐ I have worked with the student and we have discussed the possible risks involved in the project.

4) ☐ The project involves one or more of the following and requires prior approval by an SRC, IRB, IACUC or IBC:
   - ☐ Humans
   - ☐ Vertebrate Animals
   - ☐ Potentially Hazardous Biological Agents
     - ☐ Microorganisms
     - ☐ rDNA
     - ☐ Tissues

5) Forms to be completed for **ALL Projects:**
   - ☐ Adult Sponsor Checklist (1)
   - ☐ Student Checklist (1A)
   - ☐ Research Plan
   - ☐ Approval Form (1B)
   - ☐ Regulated Research Institutional/Industrial Setting Form (1C) (when applicable)
   - ☐ Continuation Form (7) (when applicable)

---

6) **Additional forms required if the project includes the use of one or more of the following** (check all that apply):

☐ **Humans** (Requires prior approval by an Institutional Review Board (IRB), see pp. 13-16 for full text of the rules)
- ☐ Human Subjects Form (4)
- ☐ Qualified Scientist Form (2) (if applicable and/or required by the IRB)

☐ **Vertebrate Animals** (Requires prior approval, see pp. 17-20 for full text of the rules)
- ☐ Vertebrate Animal Form (5A) - for projects conducted in a non-regulated research site (SRC prior approval required.)
- ☐ Vertebrate Animal Form (5B) - for projects conducted at a Regulated Research Institution. (Institutional Animal Care and Use Committee (IACUC) approval required prior experimentation.)
- ☐ Qualified Scientist Form (2) (Required for all vertebrate animal projects at a regulated research site or when applicable)

☐ **Potentially Hazardous Biological Agents** (Requires prior approval by SRC, IACUC or Institutional Biosafety Committee (IBC), see pp. 21-24 for full text of the rules.)
- ☐ Potentially Hazardous Biological Agents Form (6A)
- ☐ Human and Vertebrate Animal Tissue Form (6B) - to be completed in addition to Form 6A when project involves the use of fresh tissue, primary cell cultures, blood, blood products and body fluids.
- ☐ Qualified Scientist Form (2) (when applicable)

☐ **Hazardous Chemicals, Activities and Devices** (No prior approval required, see pp.25-27 for full text of the rules.)
- ☐ Risk Assessment Form (3)
- ☐ Qualified Scientist Form (2) (required for projects involving DEA-controlled substances or when applicable)

Adult Sponsor's Printed Name	Signature	Date of Review (Must be prior to experimentation.)

Phone _____ Email _____

Student Checklist (1A)

This completed form is required for ALL individual projects.
Complete all sections by printing or typing all information requested.

1) Student's Name: _____ Grade: _____

Email: _____ Phone: _____

2) Title of Project: _____

3) School: _____ School Phone: _____

School Address: _____

4) Adult Sponsor: _____ Phone/Email: _____

5) Is this a continuation from a previous year? ☐ Yes ☐ No
If Yes:
a) Attach the previous year's ☐ **Abstract** ☐ **Form 1A and** ☐ **Research Plan**
b) Explain how this project is new and different from previous years on ☐ **Continuation Form (7)**

6) **This year's** laboratory experiment/data collection will begin: **(must be stated (mm/dd/yy)**

Projected Start Date: _____ Projected End Date: _____

ACTUAL Start Date: _____ ACTUAL End Date: _____

7) Where will you conduct your experimentation? (check all that apply)
☐ Research Institution ☐ School ☐ Field ☐ Home ☐ Other: _____

8) List name and address of all non-school work site(s):

Name: _____ _____

Address: _____ _____

_____ _____

Phone: _____ _____

9) **Complete a Research Plan (See page 32) and attach to this form.**

10) **An abstract is required for all projects after experimentation (see page 28).**

Student Checklist (1A) - TEAM

This completed form is required for ALL team projects.
Complete all sections by printing or typing all information requested.

1) a. Team Leader: _____ Grade: _____

b. Team Member: _____ c. Team Member _____

Email: _____ Phone: _____

2) Title of Project: _____

3) School: _____ School Phone: _____

School Address: _____

4) Adult Sponsor: _____ Phone/Email: _____

5) Is this a continuation from a previous year? ☐ Yes ☐ No

If Yes:

a) Attach the previous year's ☐ **Abstract** ☐ **Form 1A and** ☐ **Research Plan**

b) Explain how this project is new and different from previous years on ☐ **Continuation Form (7)**

6) **This year's** laboratory experiment/data collection will begin: **(must be stated (mm/dd/yy)**

Projected Start Date: _____ Projected End Date: _____

ACTUAL Start Date: _____ ACTUAL End Date: _____

7) Where will you conduct your experimentation? (check all that apply)

☐ Research Institution ☐ School ☐ Field ☐ Home ☐ Other: _____

8) List name and address of all non-school work site(s):

Name: _____ _____

Address: _____ _____

_____ _____

Phone: _____ _____

9) **Complete a Research Plan (See page 32) and attach to this form.**

10) **An abstract is required for all projects after experimentation (see page 28).**

Research Plan

REQUIRED for ALL Projects

A complete research plan must accompany Checklist for Student (1A)

Provide a typed research plan and attach to Checklist for Students (1A).

The research plan for all projects is to include the following:

A. Question being addressed

B. Hypothesis/Problem/Engineering Goals

C. Description in detail of method or procedures (The following are important and key items that should be included when formulating ANY AND ALL research plans. These are guidelines and should be followed where applicable. *Refer to Items 1-4 below.)

All Projects

- **Procedures:** Detail all procedures and experimental design to be used for data collection
- **Data Analysis:** Describe the procedures you will use to analyze the data that answer research question or hypothesis
- **Bibliography:** List at least five (5) major references (e.g. science journal articles, books, internet sites) from your library research. If you plan to use vertebrate animals, give an additional animal care reference.
    - Choose one style and use it consistently to reference the literature used in the research plan
        - Guidelines can be found in the Student Handbook and any Research Journal under the "Instructions to Authors"

1. **Human subjects research** (See instructions on p 13 of the International Rules):
    - Detail all procedures, include what the participants are asked to do (see p. 13)
    - Describe Risk Assessment process and how risks will be minimized
    - Describe Study Sample/Participants
        - Number of participants and estimated participants demographics (may include information such as: age, male/female, cultural background breakdown, Socio-economic status)
        - Recruitment procedures (where and how subjects are recruited)
        - Procedures for obtaining informed consent if applicable, include statement about informing potential participants about voluntary nature of participation and right to withdraw at any time
        - Strategies used to protect privacy and confidentiality
    - Include survey or questionnaires if used, and critically evaluate the risk
        - List and describe the measures (questionnaires, surveys) used and how you measure the variable of interest (behavioral observations, time, length). Attach the questionnaire/survey
        - Consider emotional stress and potential consequences
    - Describe any physical activities or procedures, if used, and critically evaluate the risks
        - Type, duration of exercise or physical activity
        - Ingestion method, amount, intervals, etc.

2. **Vertebrate animal research** (See instructions on p.17 of the International Rules):
    - Briefly discuss **POTENTIAL ALTERNATIVES** and present a detailed justification for use of vertebrate animals
    - Explain potential impact or contribution this research may have
    - Detail all procedures to be used
        - Include methods used to minimize potential discomfort, distress, pain and injury to the animals during the course of experimentation
        - Detailed chemical concentrations and drug dosages
    - Detail animal numbers, species, strain, sex, age, etc.
        - Include justification of the numbers planned for the research
    - Describe housing and oversight of daily care
    - Discuss disposition of the animals at the termination of the study

3. **Potentially Hazardous Biological Agents** (See instructions on p.21 of the International Rules):
    - Describe Biosafety Level Assessment process and resultant BSL determination
    - Give source of agent
    - Detail safety precautions
    - Discuss methods of disposal

4. **Hazardous Chemicals, Activities & Devices** (See instructions on p.25 of the International Rules):
    - Describe Risk Assessment process and results
    - Detail chemical concentrations and drug dosages
    - Describe safety precautions and procedures to minimize risk
    - Discuss methods of disposal

Approval Form (1B)

This completed form is required for ALL projects.

1) Required for ALL projects.

a) Student Acknowedgment:

☐ I understand the risks and possible dangers to me of the proposed research plan. I have read the ISEF Rules and Guidelines and will adhere to all International Rules when conducting this research.

☐ I have read and will abide by the following Ethics statement:

Scientific fraud and misconduct are not condoned at any level of research or competition. Such practices include plagiarism, forgery, use or presentation of other researcher's work as one's own, and fabrication of data. Fraudulent projects will fail to qualify for competition in affiliated fairs or the ISEF.

Student's Printed Name	Signature	Date Acknowledged (Must be prior to experimentation.)

b) Parent/Guardian Approval:

I have read and understand the risks and possible dangers involved in the **Research Plan**. I consent to my child participating in this research.

Parent/Guardian's Printed Name	Signature	Date of Approval (Must be prior to experimentation.)

2) To be completed by the SRC

(Required for projects requiring prior SRC/IRB APPROVAL. Sign 2a or 2b as appropriate.)

a) Required for projects that need prior SRC/IRB approval BEFORE experimentation
(humans, vertebrates or potentially hazardous biological agents)

The SRC/IRB has carefully studied this project's **Research Plan** and all the required forms are included. My signature indicates approval of the **Research Plan** before the student begins experimentation.

SRC/IRB Chair's Printed Name

Signature	Date of Approval (Must be prior to experimentation.)

OR

b) Required for research conducted at all Regulated Research Institutions with no prior fair SRC/IRB approval.

This project was conducted at a regulated research institution (**not home or high school, etc.**), was reviewed and approved by the proper institutional board before experimentation and complies with the ISEF Rules. **Attach (1C) and required institutional approvals (e.g. IACUC, IRB)**

SRC/IRB Chair's Printed Name

Signature	Date of Approval

NOTE: If a stamp is used, it must be initialed by the chairperson.

3) Final ISEF Affiliated Fair SRC Approval. (Required for ALL Projects)

SRC Approval After Experimentation and Shortly Before Competition at Regional/State/National Fair
I certify that this project adheres to the approved **Research Plan** and complies with all ISEF Rules.

Regional SRC Chair's Printed Name	Signature	Date of Approval

State/National SRC Chair's Printed Name *(where applicable)*	Signature	Date of Approval

Regulated Research Institutional/Industrial Setting Form (1C)

This form must be completed by the scientist supervising the student research conducted in a regulated research institution (*e.g.*, universities, medical centers, NIH, etc.) or industrial setting.

This form MUST be displayed with your project.

Student's Name _____

Title of Project _____

To be completed by the Scientist (NOT the Student or Adult Sponsor) after experimentation:

The student conducted research at my institution: (check one)

a) ☐ only to use the equipment b) ☐ to perform experiment(s)/conduct research

1) How did the student get the idea for her/his project?
(e.g. Was the project assigned, picked from a list, an original student idea, etc.)

2) Were you made aware of the ISEF rules before experimentation? ☐ Yes ☐ No

3) Did the student work on the project as a part of a research group? ☐ Yes ☐ No
If yes, how large was the group and what kind of research group was it (students, group of adult researchers, etc.)

4) What specific procedures or equipment did the student actually use and how independently did the student work?
Please list and describe. (Do not list procedures student **only** observed.)

Student research projects dealing with human subjects, vertebrate animals or potentially hazardous biological agents require review and approval by an institutional regulatory board (IRB/IACUC/IBC). **Copy of approval(s) must be attached.**

Scientist's Printed Name	Signature	Title
Institution		Date Signed
Address		Email/ Phone

Qualified Scientist Form (2)

May be required for research involving human subjects, vertebrate animals, potentially hazardous biological agents, and DEA-controlled Substances. Must be completed and signed prior to the start of student experimentation.

Student's Name _____

Title of Project _____

To be completed by the Qualified Scientist:

Scientist Name: _____

Educational Background: _____ Degree(s): _____

Experience/Training as relates to the student's area of research:

_____

Position: _____ Institution: _____

Address: _____ Email/Phone: _____

1) Were you made aware of the ISEF rules before student experimentation? ☐ yes ☐ no

2) Will any of the following be used?

a) Human subjects . . . . . ☐ yes ☐ no

b) Vertebrate animals . . . . . ☐ yes ☐ no

c) Potentially hazardous biological agents (microorganisms, rDNA and tissues, including blood and blood products) . . . . . ☐ yes ☐ no

d) DEA-classed substances. . . . . ☐ yes ☐ no

3) Will you directly supervise the student? . . . . . ☐ yes ☐ no

a. If no, who will directly supervise and serve as the Designated Supervisor? _____

b. Experience/Training of the Designated Supervisor:

4) Describe the safety precautions and training necessary for this project:

To be completed by the Qualified Scientist:

I certify that I have reviewed and approved the **Research Plan** prior to the start of the experimentation. If the student or Designated Supervisor is not trained in the necessary procedures, I will ensure her/his training. I will provide advice and supervision during the research. I have a working knowledge of the techniques to be used by the student in the **Research Plan**. I understand that a Designated Supervisor is required when the student is not conducting experimentation under my direct supervision.

_____

Qualified Scientist's Printed Name

_____ _____

Signature Date of Approval

To be completed by the Designated Supervisor when the Qualified Scientist cannot directly supervise

I certify that I have reviewed the **Research Plan** and have been trained in the techniques to be used by this student, and I will provide direct supervision.

_____

Designated Supervisor's Printed Name

_____ _____

Signature Date of Approval

_____ _____

Phone Email

Risk Assessment Form (3)

Required for projects using hazardous chemicals, activities or devices or regulated substances. Must be completed prior to student experimentation.

Student's Name _____

Title of Project _____

To be completed by the Student Researcher in collaboration with Designated Supervisor/Qualified Scientist:

(All questions must be answered; additional page(s) may be attached.)

1. List/identify the hazardous chemicals, activities, or devices that will be used.

2. Identify and assess the risks involved.

3. Describe the safety precautions and procedures that will be used to reduce the risks.

4. Describe the disposal procedures that will be used (when applicable).

5. List the source(s) of safety information.

To be completed and signed by the Designated Supervisor (or Qualified Scientist, when applicable):

I agree with the risk assessment and safety precautions and procedures described above. I certify that I have reviewed the **Research Plan** and will provide direct supervision.

Designated Supervisor's Printed Name	Signature	Date of Review (must be prior to experimentation.)
Position & Institution	Phone or email contact information	

Human Subjects Form (4)

Required for all research involving humans. IRB approval required before experimentation.

Student's Name _____

Title of Project _____

To be completed by Student Researcher in collaboration with the Designated Supervisor/Qualified Scientist:

(All questions must be answered; additional page may be attached.)

1) Describe the purpose of this study and list all of the research procedures in which the subject will be involved. Include the duration of the subject's involvement. Attach any survey or questionnaire.

2) Describe and assess any potential risk or discomfort, and, if any, potential benefits (physical, psychological, social, legal or other) that may be reasonably expected by participating in this research.

3) Describe the procedures that will be used to minimize risk, to obtain informed consent and/or assent, and to maintain confidentiality.

For questions or concerns regarding this research, contact: _____ at _____.
Adult Sponsor Email/phone

To be completed by Institutional Review Board (IRB) prior to experimentation: Determination of risk, including physical and psychological risks (See risk evaluation, p. 14.)

☐ **Minimal risk where informed consent is recommended, but not required.** Justification for waiver of informed consent for research with subjects under 18 years of age: _____

☐ **Minimal risk where informed consent is REQUIRED.**

☐ **More than minimal risk where informed consent & a Qualified Scientist are REQUIRED**

IRB SIGNATURES (All three signatures are required)

1) Medical Professional: ***(MUST circle one)*** (a psychologist, psychiatrist, medical doctor, licensed social worker, physician's asst., or registered nurse)

Printed Name (including title)	Signature	Date of Approval

2) Science Teacher:

Printed Name	Signature	Date of Approval

3) School Administrator:

Printed Name	Signature	Date of Approval

To be completed by Human Subject:

(prior to experimentation)

Printed Name _____

☐ yes ☐ no I have read and understand the conditions and risks above and I consent/assent to voluntarily participate in this research study.

☐ yes ☐ no I realize I am free to withdraw my consent and to withdraw from this study at any time without negative consequences.

☐ yes ☐ no I consent to the use of visual images (photos, videos, etc.) involving my participation in this research.

Signature _____ Date _____

To be completed by Parent/Guardian:

(Prior to experimentation and when participant is under 18 and informed consent is required)

Printed Name _____

☐ yes ☐ no I have read and understand the conditions and risks above and consent to the participation of my child.

☐ yes ☐ no I have reviewed a copy of any survey or questionnaire used in the research.

☐ yes ☐ no I consent to the use of visual images (photos, videos, etc.) involving my child in this research.

Signature _____ Date _____

Vertebrate Animal Form (5A)

Required for all research involving vertebrate animals that is conducted in a Non-Regulated Research Site.
(SRC approval required before experimentation.)

Student's Name _____

Title of Project _____

To be completed by Student Researcher:

1. Common name (or Genus, species) and number of animals used.

2. Describe completely the housing and husbandry to be provided. Include the cage/pen size, number of animals per cage, environment, bedding, type of food, frequency of food and water, how often animal is observed, etc.

3. What will happen to the animals after experimentation?

To be completed by Scientific Review Committee (SRC) PRIOR to experimentation:

☐ Observational study only. Veterinarian and Designated Supervisor NOT required.

☐ Behavioral or nutritional study. Designated Supervisor REQUIRED. Please have applicable person sign below.

☐ Behavioral or nutritional study. Veterinarian and Designated Supervisor REQUIRED. Please have applicable persons sign below.

☐ Behavioral or nutritional study. Veterinarian, Designated Supervisor and Qualified Scientist REQUIRED. Please have applicable persons sign below and complete a Qualified Scientist Form (2).

The SRC has carefully reviewed this study and finds it is an appropriate study and may be conducted in a non-regulated research site.

SRC Pre-Approval Signature:

SRC Chair Printed Name _____ Signature _____ Date of Approval _____

To be completed by Veterinarian:

☐ I certify that I have reviewed this research and animal husbandry with the student prior to the start of experimentation.

☐ I certify that I will provide veterinary medical and nursing care in case of illness or emergency.

Printed Name _____ Email/Phone _____

Signature _____ Date of Approval _____

To be completed by Designated Supervisor:

☐ I certify that I have reviewed this research and animal husbandry with the student prior to the start of experimentation and I accept primary responsibility for the care and handling of the animals in this project.

☐ I certify that I will directly supervise the experiment.

Printed Name _____ Email/Phone _____

Signature _____ Date of Approval _____

Vertebrate Animal Form (5B)

Required for all research involving vertebrate animals that is conducted at a Regulated Research Institution.
(IACUC approval required before experimentation.)

Student's Name _____

Title of Project _____

Title and Protocol Number of IACUC Approved Project _____

To be completed by Qualified Scientist or Principal Investigator:

1. Was this a student-generated idea or was it a subset of your work?

2. Were you made aware of the ISEF Rules before the student began experimentation?

3. What laboratory training, including dates, was provided to the student?

4. Species of animals used: _____ Number of animals used: _____

5. USDA Pain Category designated for this study:

6. Describe, in detail, the role of the student in this project: procedures and equipment they were involved with, oversight provided and safety precautions employed. (Attach extra pages if necessary.)

7. **Attach a copy of the Regulated Research Institution IACUC Approval.** A letter from the Qualified Scientist or Principal Investigator is not sufficient**.**

Certification or Documentation of Student Researcher Training

_____ _____
List Certificate Number or Attach Documentation Date(s) of Training

_____ _____ _____
Qualified Scientist/Principal Investigator Printed Name Signature Date

_____ _____ _____
IACUC Chair/Coordinator Printed Name Signature Date

Potentially Hazardous Biological Agents Form (6A)

Required for all research involving microorganisms, rDNA and fresh tissue, blood and body fluids. SRC/IACUC/IBC approval required before experimentation.

Student's Name _____

Title of Project _____

To be completed by Student Researcher in collaboration with Qualified Scientist/Designated Supervisor:

(All questions are applicable and must be answered; additional page(s) may be attached.)

1) Identify potentially hazardous biological agents to be used in this experiment. Include the source, quantity and the biosafety level risk group of each microorganism.

2) Describe the site of experimentation including the level of biological containment.

3) Describe the method of disposal of all cultured materials and other potentially hazardous biological agents.

4) Describe the procedures that will be used to minimize risk. (personal protective equip., hood type, etc.)

5) What final biosafety level do you recommend for this project given the risk assessment you conducted?

To be completed by Qualified Scientist or Designated Supervisor

1) What training did the student receive for this project?

2) Do you concur with the biosafety information and recommendation provided by the student researcher above? ☐ Yes ☐ No
If no, please explain.

QS/DS Printed Name _____ Signature _____ Date of Signature _____

To be completed by SRC prior to experimentation:

☐ The SRC has carefully studied this project's Research Plan and the risk level assessment above and approves this study as a BSL-1 study, which must be conducted at a BSL-1 or above laboratory.

☐ The SRC has carefully studied this project's Research Plan and the risk level assessment above and approves this study as a BSL-2 study, which must be conducted at a BSL-2 or above laboratory.

SRC Chair's Printed Name _____

Signature _____ Date of Approval _____

To be completed by SRC after experimentation with Institutional pre-approval:

☐ This project was reviewed and approved by the appropriate institutional board (e.g. IACUC, IBC) before experimentation at a BSL-1 or BSL-2 laboratory and complies with the ISEF rules. The required institutional forms are attached.

SRC Chair's Printed Name _____

Signature _____ Date of Approval _____

Human and Vertebrate Animal Tissue Form (6B)

Required for all projects using fresh tissue, primary cell cultures, blood, blood products and body fluids.
If the research involves living organisms, please ensure that the proper human or animal forms are completed.
ALL PROJECTS USING ANY TISSUE LISTED ABOVE, MUST ALSO COMPLETE FORM 6A.

Student's Name _____

Title of Project _____

To be completed by Student Researcher:

1) What tissue(s), organ(s), or part(s) will be used?

2) Where will the above tissue, organ, or part be obtained (identify each separately):

3) If the tissue is obtained from a source within a research institution, please provide information regarding the vertebrate study from which the tissue was obtained. Include the name of the research institution, the title of the study, the IACUC approval number and date of IACUC approval.

To be completed by the Designated Supervisor or Qualified Scientist:

☐ I verify that the student will work solely with organs, tissues, cultures or cells that will be supplied to him/her by myself or qualified personnel from the laboratory; and that if vertebrate animals were euthanized they were euthanized for a purpose other than the student's research.

AND/OR

☐ I certify that the blood, blood products, tissues or body fluids in this project will be handled in accordance with the standards and guidance set forth in Occupational Safety and Health Act, 29CFR, Subpart Z, 1910.1030 - Blood Borne Pathogens.

Printed Name	Signature	Date Signed (Must be prior to experimentation.)
Title	Phone or email contact information	
Institution		

Continuation Projects Form (7)

Required for projects that are a continuation in the same field of study as a previous project.

This form should be accompanied by the previous year's abstract, Form (1A) and Research Plan.

Student's Name _____

To be completed by Student Researcher:

List all components of the current project that make it new and different from previous research. Use an additional form for 2003 and earlier projects.

Components	Current Research Project	Previous Research Project
1. Title		2005-2006: 2004-2005:
2. Objectives		2005-2006: 2004-2005:
3. Variables studied		2005-2006: 2004-2005:
4. Line of investigation		2005-2006: 2004-2005:
5. Additional changes		2005-2006: 2004-2005:

This form must be displayed at your project to help provide the judges a better understanding of your project and what research has been done in the current year.

I hereby certify that the above information is correct and that the current year Abstract & Certification and project display board properly reflect work done only in the current year.

Student's Printed Name	Signature	Date of Signature