

Checklist for Adult Sponsor (1)

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

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

Student's Name: _____

Project Title: _____

- I have reviewed the ISEF Rules and Guidelines.
- I have reviewed the student's completed Student Checklist (1A) and Research Plan.
- I have worked with the student and we have discussed the possible risks involved in the project.
- 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) Research Plan
 Student Checklist (1A) 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) (when applicable and/or required by the IRB)
- Vertebrate Animals** (Requires prior approval, see 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 Risk Assessment Form (6A)
 - Human and Vertebrate Animal Tissue Form (6B) - to be completed in addition to Form 6A when project involves the use of fresh or frozen tissue, primary cell cultures, blood, blood products and body fluids.
 - Qualified Scientist Form (2) (when applicable)
 - Risk Assessment Form (3) Required for projects involving protists, archae and similar microorganisms and for projects using manure for composting, fuel production or other non-culturing experiments (6A, 6B and 2 are not required)
- 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 form is required for ALL projects.

1) a. Student/Team Leader: _____ Grade: _____

Email: _____ Phone: _____

b. Team Member: _____ c. Team Member: _____

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** 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: (must be stated (mm/dd/yy))

Start Date: _____ 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 following the Research Plan instructions and attach to this form.**

10) **An abstract is required for all projects after experimentation.**

Research Plan Instructions

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

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

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

A. Question or Problem being addressed

B. Hypothesis/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.)

- **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

D. Bibliography: List at least five (5) major references (e.g. science journal articles, books, internet sites) from your literature review. If you plan to use vertebrate animals, one of these references must be an 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

Items 1-4 below are subject-specific guidelines for additional items to be included in your research plan as applicable:

1. Human subjects research:

- **Subjects.** Describe who will participate in your study (age range, gender, racial/ethnic composition). Identify any vulnerable populations (minors, pregnant women, prisoners, mentally disabled or economically disadvantaged).
- **Recruitment.** Where will you find your subjects? How will they be invited to participate?
- **Methods.** What will participants be asked to do? Will you use any surveys, questionnaires or tests? What is the frequency and length of time involved for each subject?
- **Risks.** What are the risks or potential discomforts (physical, psychological, time involved, social, legal etc) to participants? How will you minimize the risks?
- **Benefits.** List any benefits to society or each participant.
- **Protection of Privacy.** Will any identifiable information (e.g., names, telephone numbers, birthdates, email addresses) be collected? Will data be confidential or anonymous? If anonymous, describe how the data will be collected anonymously. If not anonymous, what procedures are in place for safeguarding confidentiality? Where will the data be stored? Who will have access to the data? What will you do with the data at the end of the study?
- **Informed Consent Process.** Describe how you will inform participants about the purpose of the study, what they will be asked to do, that their participation is voluntary and they have the right to stop at any time.

2. Vertebrate animal research:

- Briefly discuss potential **ALTERNATIVES** to vertebrate animal use 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:

- Describe Biosafety Level Assessment process and resultant BSL determination
- Give source of agent, source of specific cell line, etc.
- Detail safety precautions
- Discuss methods of disposal

4. Hazardous Chemicals, Activities & Devices:

- 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)

A completed form is required for each student, including all team members.

1) To Be Completed by Student and Parent

a) Student Acknowledgment:

- 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 Intel 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 Fair 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 Chair's Printed Name

Signature

Date of Approval

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

Signature

Date of Approval

(where applicable)

Regulated Research Institutional/Industrial Setting Form (1C)

This form must be completed after experimentation by the adult supervising the student research conducted in a regulated research institution, industrial setting or any work site other than home, school or field.

This form **MUST** be displayed with your project; Responses must be on the form

Student's Name _____

Title of Project _____

To be completed by the Supervising Adult in the Setting (NOT the Student) after experimentation:
(Responses must remain on the form as it is required to be displayed at student's project booth.)

The student conducted research at my work site:

- a) 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) Have you reviewed the ISEF rules relevant to this project? 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 for the project.
Please list and describe. (Do not list procedures student **only** observed.)

5) How independent or creative was the student's work?

*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, if applicable.***

Supervising Adult'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 before 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) Have you reviewed the ISEF rules relevant to this project? 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-controlled 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.

Must be completed before experimentation.

Student's Name _____

Title of Project _____

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

1. List/identify the hazardous chemicals, activities, devices or microorganisms exempt from pre-approval (see Potentially Hazardous Biological Agent rules) 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

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

Human Subjects Form (4)

Required for all research involving human subjects. (IRB approval required before experimentation.)

Student's Name _____ Title of Project _____

Adult Sponsor: _____ Contact Phone/Email: _____

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

1. I have submitted my Research Plan which addresses ALL areas indicated in the Human Subjects Section of the Research Plan Instructions.
2. I have attached any surveys or questionnaires I will be using in my project.
3. I have attached an informed consent that I would use if required by the IRB.
4. Yes No Are you working with a Qualified Scientist?
 Name: _____ Degree: _____
 Email Address/Phone Number: _____
 Experience/Training as it relates to this project: _____

To be completed by Institutional Review Board (IRB) after review of the research plan. The submitted Research Plan must address all areas indicated on the Human Subjects section of the Research Plan Instructions.

Check one of the following:

- Research project requires revisions and is **NOT approved** at this time. IRB will attach document indicating concerns and/or requested revisions.
- Research project is **Approved** with the following conditions below: (All 5 must be answered)
 1. Risk Level (check one): Minimal Risk More than Minimal Risk
 2. Qualified Scientist (QS) Required: Yes No
 3. Written Minor Assent required for minor subjects:
 Yes No Not applicable (No minors in this study)
 4. Written Parental Permission required for minor subjects:
 Yes No Not applicable (No minors in this study)
 5. Written Informed Consent required for subjects 18 years or older:
 Yes No Not applicable (No subjects 18 yrs or older in this study)

IRB SIGNATURES (All 3 signatures required) None of these individuals may be the adult sponsor, designated supervisor, qualified scientist or related to (e.g., mother, father of) the student (conflict of interest).

I attest that I have reviewed the student's project and agree with the above IRB determinations.

Medical or Mental Health Professional (a psychologist, psychiatrist, medical doctor, licensed social worker, licensed clinical professional counselor, physician's assistant, or registered nurse)	
Printed Name	Degree/Professional License
Signature	Date of Approval

School Administrator	
Printed Name	Degree
Signature	Date of Approval

Educator	
Printed Name	Degree
Signature	Date of Approval

Sample Informed Consent Form

Instructions to the Student Researcher: An informed consent/assent/permission form should be developed in consultation with the Adult Sponsor, Designated Supervisor or Qualified Scientist.

This form is used to provide information to the research subject (or parent/guardian) and to document written informed consent, minor assent, and/or parental permission.

- When written documentation is required, the researcher keeps the original, signed form.
- Students may use this sample form or may copy ALL elements of it into a new document.
- If the form is serving to document parental permission, a copy of any survey or questionnaire must be attached.

Student Researcher:

Title of Project:

I am asking for your voluntary participation in my science fair project. Please read the following information about the project. If you would like to participate, please sign in the appropriate box below.

Purpose of the project:

If you participate, you will be asked to:

Time required for participation:

Risks:

Benefits:

How confidentiality will be maintained:

If you have any questions about this study, feel free to contact:

Adult Sponsor: _____ Phone/email: _____

Voluntary Participation:

Participation in this study is completely voluntary. If you decide not to participate there will not be any negative consequences. Please be aware that if you decide to participate, you may stop participating at any time and you may decide not to answer any specific question.

By signing this form I am attesting that I have read and understand the information above and I freely give my consent/assent to participate or permission for my child to participate.

Adult Informed Consent or Minor Assent

Date Reviewed & Signed: _____

Printed Name of Research Subject:

Signature:

Parental/Guardian Permission (if applicable)

Date Reviewed & Signed: _____

Parent/Guardian Printed Name:

Signature:

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) BEFORE experimentation

Level of Supervision Required for agricultural, behavioral or nutritional studies:

- Designated Supervisor REQUIRED. Please have applicable person sign below.
- Veterinarian and Designated Supervisor REQUIRED. Please have applicable persons sign below.
- Veterinarian, Designated Supervisor and Qualified Scientist REQUIRED. Please have applicable persons sign below and have the Qualified Scientist complete Form (2).

The SRC has carefully reviewed this study and finds it is an appropriate study that 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 before the start of experimentation.
- I certify that I have approved the use and dosages of prescription drugs and/or nutritional supplements.
- 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 before 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. Have you reviewed the ISEF Rules relevant to this project?
3. What laboratory training, including dates, was provided to the student?
4. Species of animals used: _____ Number of animals used: _____
5. a. Pain designation for the IACUC protocol: _____
b. Pain designation for student's project: _____
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. If the student's project also involves the use of tissues, please describe the tissues to be used and how they were obtained. (If these tissues are covered in the above IACUC protocol, the student does not need to complete Form 6A or Form 6B)
8. **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

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

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

_____ Signature _____ Date _____
IACUC Chair/Coordinator Printed Name

Potentially Hazardous Biological Agents Risk Assessment Form (6A)

Required for research involving microorganisms, rDNA, fresh/frozen 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 will 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

Experience/training of Designated Supervisor as it relates to the student's area of research (if applicable)

To be completed by SRC: (Check all that apply.)

- The SRC has carefully studied this project's Research Plan and the risk level assessment above **prior to experimentation** and approves this study as a BSL-1 study, which must be conducted at a BSL-1 or above laboratory.
Date of SRC approval (before experimentation) _____
- The SRC has carefully studied this project's Research Plan and the risk level assessment above **prior to experimentation** and approves this study as a BSL-2 study, which must be conducted at a BSL-2 or above laboratory.
Date of SRC approval (before experimentation) _____
- This project was conducted at a Research Institution and 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.
Date of SRC approval (after experimentation) _____
- The Research Institution where this study was conducted does not require approval for this type of study. The student has received proper training and the project complies with ISEF rules. Attached is a letter from an institutional representative certifying the above. Date of SRC approval _____

SRC Chair's Printed Name

Signature

Human and Vertebrate Animal Tissue Form (6B)

Required for projects using fresh/frozen 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. Attach a copy of the IACUC certification with 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 Qualified Scientist or Designated Supervisor:

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/Email _____

Institution _____

Continuation Projects Form (7)

Required for projects that are a continuation in the same field of study as a previous project.
This form must be accompanied by the previous year's abstract 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. The information must be on the form; use an additional form for 2007-2008 and earlier projects.

Components	Current Research Project	Previous Research Project
1. Title		2009-2010: 2008-2009:
2. Changes in Goal/Purpose/Objective		2009-2010: 2008-2009:
3. Changes in Methodology		2009-2010: 2008-2009:
4. Variables Studied		2009-2010: 2008-2009:
5. Additional Changes		2009-2010: 2008-2009:

Attached are:

2009- 2010 Abstract and Research Plan

2008-2009 Abstract

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