

Checklist for Adult Sponsor / Safety Assessment Form (1)

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

Student's Name _____

- 1) The student and a parent / guardian have signed the **Approval Form (1B)**.
 - 2) I have reviewed the **Research Plan (1A)**, **Research Plan Attachment** and signed **Approval Form (1B)**.
 - 3) This project involves the following area(s) and requires **SRC/IRB approval** before experimentation begins:
 - Human Subjects**
 - Controlled Substances**
 - Vertebrate Animals**
 - Recombinant DNA**
 - Pathogenic Agents***
- * All bacteria, fungi, etc. isolated from the environment should be considered potentially pathogenic.
- 4) This project does not involve any of the research areas listed in #3.
 - 5) This project involves human subjects. The student will obtain approval from an **Institutional Review Board (IRB)** before experimentation is started. (See pp. 12-14.)
 - 6) This project involves vertebrate animals, pathogenic agents, controlled substances or recombinant DNA. The student will obtain approval from a **Scientific Review Committee (SRC)/IACUC** before experimentation is started. (See pp. 15-23.)
 - 7) This project involves tissues or the use of hazardous substances or devices checked below. A Designated Supervisor will provide proper supervision to the student. Prior approval by the adult sponsor and certification by a designated supervisor is required. (See p. 19, p. 23.)
 - Tissues** I have reviewed with the student the research plan and determined that this project is a tissue study and that, if applicable, the tissue was obtained from an animal sacrificed for a purpose other than the student's project.
 - Chemicals** (*i.e.*, hazardous, flammable, explosive or highly toxic; carcinogens; mutagens and all pesticides). I have reviewed with the student the Material Safety Data Sheet (MSDS) Listing for each chemical that will be used. I have also reviewed the proper safety standards for each chemical including toxicity data, proper handling techniques, and disposal methods. For *Safety in Academic Chemistry Laboratories*, visit the American Chemical Society's website at <http://pubs.acs.org>.
 - Equipment** (*i.e.*, welders; lasers; voltage greater than 220 volts). I have reviewed with the student the proper operational procedures and safety precautions for the equipment to be used by the student. For information about laser standards and research, visit the OSHA website at www.osha.gov.
 - Firearms**. I have reviewed with the student the proper safety standards for firearms use.
 - Radioactive Substances**. I have reviewed the proper safety standards for each radioactive substance the student will use.
 - Radiation** (*i.e.*, x-ray or nuclear; unshielded ionizing radiation of 100-400 nm wavelength). I have reviewed with the student the proper safety methods concerning the type of radiation the student will use.

Adult Sponsor's Printed Name _____

Signature _____

Date of Review _____

(Must be prior to experimentation.)

Research Plan (1A)

This completed form is required for ALL projects.

Type or print all information requested.

Answer all questions and complete Research Plan Attachment (see page 28)

1) Student's Name _____ Grade _____

2) Title of Project _____

3) Adult Sponsor _____ Phone: _____ Email: _____

4) Is this a continuation from a previous year? Yes No

If Yes: a) Attach the previous year's **abstract, Research Plan 1A and Research Plan Attachment** and

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

5) **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: _____

6) Where will you conduct your lab work? (check all that apply) Research Institution School Field Home

7) Name, address & phone of school and work site(s):

School:

Work site:

Work site:

_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

8) **All projects require completed forms: Checklist for Adult Sponsor/Safety Assessment Form (1), Research Plan (1A), Research Plan Attachment and Approval Form (1B) and may require Regulated Research Institutional/Industrial Setting Form (1C).**

Check **ALL** items that apply to your research.

The following areas require review and approval by SRC or IRB prior to experimentation :

- Humans** (requires prior IRB approval; complete Forms: Checklist, 1A, 1B, 4 [1C, 2, 3, if required])
- Vertebrate Animals** (requires prior SRC or IACUC approval, complete: Checklist, 1A, 1B, 5A or 5B [1C, 2, 3, if required])
- Pathogens** (requires prior SRC approval; complete Forms: Checklist, 1A, 1B, 2 [1C, 3, if required])
- Controlled Substances** (requires prior SRC approval; complete Forms: Checklist, 1A, 1B, 2 or 3 [1C, 2, 3 as required])
- Recombinant DNA** (requires prior SRC approval, complete Forms: Checklist, 1A, 1B [2, 3, 1C, as required])

The following areas require approval by a Designated Supervisor prior to experimentation:

- Human/Animal Tissue** (complete Forms: Checklist, 1A, 1B, 3, 6 [1C, if required])
- Hazardous Substances or Devices** (complete Forms: Checklist, 1A, 1B, 3 [1C, if required])

9) **Complete Research Plan Attachment (See page 28) and attach to this form.**

10) **An abstract is required for all projects after experimentation (see page 24).**

Research Plan Attachment

REQUIRED for ALL Projects

A complete research plan must accompany Research Plan Form (1A)

Additional pages may be attached

Student Name(s): _____

Provide a typed research plan and attach to Research Plan Form (1A).

The research plan is to include the following:

A. Question being addressed

B. Hypothesis/Problem/Engineering Goals

C. Description in detail of method or procedures (including chemical concentrations and drug dosages)

For human research, include survey or questionnaires if used, and critically evaluate the risk. See instructions for human research on p. 12 of the Rules. **For vertebrate animal research, you must briefly discuss POTENTIAL ALTERNATIVES and present a detailed justification for use of vertebrate animals.** See instructions on p. 15 of the International Rules.

D. Bibliography

List at least five 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.

Research Plan (1A) - TEAM

This completed form is required for ALL projects.

Type or print all information requested.

Answer all questions and complete Research Plan Attachment (see page 28)

1) a) Team Leader _____ Grade _____

b) Team Member _____ c) Team Member _____

2) Title of Project _____

3) Adult Sponsor _____ Phone: _____ Email: _____

4) Is this a continuation from a previous year? Yes No

If Yes: a) Attach the previous year's **abstract, Research Plan 1A and Research Plan Attachment** and

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

5) **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: _____

6) Where will you conduct your lab work? (check all that apply) Research Institution School Field Home

7) Name, address & phone of school and work site(s):

School:	Work site:	Work site:
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

8) **All projects require completed forms: Checklist for Adult Sponsor/Safety Assessment Form (1), Research Plan (1A), Research Plan Attachment and Approval Form (1B) and may require Regulated Research Institutional/Industrial Setting Form (1C).**

Check **ALL** items that apply to your research.

The following areas require review and approval by SRC or IRB prior to experimentation :

- Humans** (requires prior IRB approval; complete Forms: Checklist, 1A, 1B, 4 [1C, 2, 3, if required])
- Vertebrate Animals** (requires prior SRC or IACUC approval, complete: Checklist, 1A, 1B, 5A or 5B [1C, 2, 3, if required])
- Pathogens** (requires prior SRC approval; complete Forms: Checklist, 1A, 1B, 2 [1C, 3, if required])
- Controlled Substances** (requires prior SRC approval; complete Forms: Checklist, 1A, 1B, 2 or 3 [1C, 2, 3 as required])
- Recombinant DNA** (requires prior SRC approval, complete Forms: Checklist, 1A, 1B [2, 3, 1C, as required])

The following areas require approval by a Designated Supervisor prior to experimentation:

- Human/Animal Tissue** (complete Forms: Checklist, 1A, 1B, 3, 6 [1C, if required])
- Hazardous Substances or Devices** (complete Forms: Checklist, 1A, 1B, 3 [1C, if required])

9) **Complete Research Plan Attachment (See page 28) and attach to this form.**

10) **An abstract is required for all projects after experimentation (see page 24).**

Approval Form (1B)

This completed form is required for ALL projects.

1) REQUIRED FOR ALL PROJECTS.

- a) **Student Acknowledgment:** I understand the risks and possible dangers to me of the proposed **Research Plan (1A)**. I will adhere to all International Rules when conducting this research.

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 (1A)** and **Attachment**. I consent to my child participating in this research.

Parent/Guardian's Printed Name

Signature

Date of Approval

(Must be prior to experimentation.)

- c) **Adult Sponsor Approval:** I have read the **Research Plan (1A)** and **Attachment** prior to experimentation and reviewed the **Checklist for Adult Sponsor** with the student. I agree to sponsor the student named above and assume reasonable responsibility for compliance with all International ISEF Rules as they pertain to the **Research Plan (1A)**.

Adult Sponsor's Printed Name

Signature

Date of Approval

(Must be prior to experimentation.)

2) REQUIRED FOR PROJECTS REQUIRING SRC/IRB APPROVAL. SIGN 2a OR 2b AS APPROPRIATE.

- a) **Required for projects that need prior SRC/IRB approval BEFORE experimentation** (i.e., see Item #8 on Form 1A.)

The SRC/IRB has carefully studied this project's **Research Plan (1A) and Attachment** and all the required forms are included. My signature indicates approval of the **Research Plan (1A)** 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 (1A)** and **Attachment** 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 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)

If b, the following questions must be answered.

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 did the student actually perform 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 rDNA require review and approval by an institutional regulatory board (IRB/IACUC). Copy of approval(s) must be attached.

Scientist's Printed Name

Signature

Title

Institution

Date Signed

Address

Email/ Phone

Qualified Scientist Form (2)

Required for research involving pathogens; may be required for research involving rDNA, vertebrate animals, controlled substances and humans. Must be signed prior to the start of student experimentation.

Student's Name _____

Title of Project _____

To be completed by the Qualified Scientist (qualifications must be in student's area of research):

Scientist's Name _____

Advanced Degree _____ Degree Specialty (must be stated) _____

If degree does not clarify qualifications in student's area of research, please explain:

Position: _____ Institution: _____

Address: _____ Email/Phone: _____

- 1) Will vertebrate animals be used? yes no
a) If yes, were alternatives (see page 15) explored? yes no
b) Could this project cause pain or distress to the vertebrate animal(s)? yes no
c) Does this project duplicate previously published research? yes no

If yes to any of the above (a, b, c) please explain and justify: _____

- 2) Will human subjects be used? yes no
3) Will controlled substances be used? yes no
(includes DEA classed substances, prescription drugs, alcohol and tobacco)
If yes, a) Will they be used according to existing local, state and federal regulations? yes no

b) Please list the name(s) of the controlled substance(s): _____

- 4) Will recombinant DNA be used? yes no
5) Will pathogenic or potentially pathogenic agents be used? yes no

If yes, name(s) _____

If yes, will accepted procedures be used? yes no

- 6) Will tissues or body fluids be used? yes no
7) Will hazardous substances be used? yes no
8) Will you directly supervise the student(s)? yes no

If yes, please explain what safety precautions will be taken in this study: _____

I certify that I have reviewed and approved the **Research Plan (1A)** and **Attachment** 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 (1A)** and **Attachment**. If an addictive substance is used in this research, I certify that I possess a DEA license required for procuring and dispensing an addictive substance. 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 _____
(Must be prior to experimentation.)

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: (All questions are applicable and 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 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. 12.)

- Minimal risk where informed consent is recommended, but not required.**
Justification for waiver of informed consent for research with survey of subjects under the age of 18: _____
- Minimal risk where informed consent is REQUIRED.**
- More than minimal risk where informed consent & a Qualified Scientist are REQUIRED**

IRB SIGNATURES (a minimum of three signatures is required)

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

Member of IRB's Printed Name Signature Date of Approval

2) Science Teacher:

Member of IRB's Printed Name Signature Date of Approval

3) School Administrator:

Member of IRB's Printed Name Signature Date of Approval

To be completed by Human Subject: (prior to experimentation)

- I have read and understand the conditions and risks above and I consent/assent to voluntarily participate in this research study.
- I realize I am free to withdraw my consent and to withdraw from this study at any time without negative consequences.
- 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)

- I have read and understand the conditions and risks above and consent to the participation of my child.
- I have reviewed a copy of any survey or questionnaire used in the research.
- 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 quality of care and handling of the animals in this project.

- Additionally, 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
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_____	_____	_____
QS/PI Printed Name	Signature	Date

_____	_____	_____
IACUC Chair/Coordinator Printed Name	Signature	Date

Human and Vertebrate Animal Tissue Form (6)

Required for all projects using fresh tissue, organs, primary cell cultures, established cell and tissue cultures, meat or meat by-products, human or animal parts, including blood, blood products, teeth and body fluids.

If the research involves living organisms, please ensure that the proper human or animal forms are completed.

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:

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

Institution

Continuation Projects Form (7)

Required for projects that are a continuation in the same field of study from a previous year(s)' project.

This form is required for projects exhibiting at the Intel ISEF and should be accompanied by the previous year's abstract and Research Plan (1A) with Attachment.

Please use a separate sheet of paper to list additional years as necessary.

Student's Name _____

Title of Project _____

To be completed by Student Researcher:

1) How does the current year's project document new and different research?

2) Please briefly explain former years' work on this project, emphasizing how it is different from the current year.

2003-2004 - Describe and Submit: Abstract Research Plan (1A) with Research Plan Attachment

2002-2003

2001-2002

Please use a separate sheet of paper to list additional years as necessary.

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