

# 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**
  - Non-Human Vertebrate Animals**
  - Recombinant DNA**
  - Pathogenic Agents\***
  - Human or Non-Human Vertebrate Animal Tissue**

\* 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. 14-16.)
- 6)  This project involves non-human vertebrate animals, pathogenic agents, controlled substances, recombinant DNA, or human and animal tissue. The student will obtain approval from a **Scientific Review Committee (SRC)** before experimentation is started. (See pp. 17-25.)
- 7)  This project involves the 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. 28.)
  - 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](http://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 31)

1) Student's Name \_\_\_\_\_ Grade \_\_\_\_\_

2) Title of Project \_\_\_\_\_  
\_\_\_\_\_

3) Adult Sponsor \_\_\_\_\_

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

**If Yes:** a) Attach the previous year's **abstract & completed 1A & research plan** 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 Registered 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])
- Non-Human Vertebrate Animals** (requires prior SRC approval, complete Forms: Checklist, 1A, 1B, 2, 5 [1C, 3, if required])
- Recombinant DNA** (requires prior SRC approval, complete Forms: Checklist, 1A, 1B [2, 3, 1C, as 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 [1C, 3, if required])
- Human/Animal Tissue** (requires prior SRC approval; complete Forms: Checklist, 1A, 1B, 6 [1C, 2, if required])

**This area requires approval by a Designated Supervisor prior to experimentation:**

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

9) **Complete Research Plan Attachment (See page 31) and attach to this form.**

10) **An abstract is required for all projects after experimentation (see page 27).**

# 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. 14 of the Rules. **For nonhuman vertebrate animal research, you must briefly discuss POTENTIAL ALTERNATIVES and present a detailed justification of use of nonhuman vertebrate animals.** See instructions on p. 19 of the International Rules.

**D. Bibliography**

List at least three major references (*e.g.*, science journal articles, books, internet sites) from your library research. If you plan to use non-human 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 31)

1) a) Team Leader \_\_\_\_\_ Grade \_\_\_\_\_

b) Team Member \_\_\_\_\_ c) Team Member \_\_\_\_\_

2) Title of Project \_\_\_\_\_

3) Adult Sponsor \_\_\_\_\_

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

**If Yes:** a) Attach the previous year's **abstract** & completed **1A & research plan** 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 Registered 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])
- Non-Human Vertebrate Animals** (requires prior SRC approval, complete Forms: Checklist, 1A, 1B, 2, 5 [1C, 3, if required])
- Recombinant DNA** (requires prior SRC approval, complete Forms: Checklist, 1A, 1B [2, 3, 1C, as 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 [1C, 3, if required])
- Human/Animal Tissue** (requires prior SRC approval; complete Forms: Checklist, 1A, 1B, 6 [1C, 2, if required])

**This area requires approval by a Designated Supervisor prior to experimentation:**

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

9) **Complete Research Plan Attachment (See page 31) and attach to this form.**

10) **An abstract is required for all projects after experimentation (see page 27).**

# 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 Registered Research Institutions with no prior fair SRC approval.**

This project was conducted at a registered research institution (**not home or high school**) and was not previewed and approved by the fair SRC before experimentation, but it does comply with the International 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 International Rules.

\_\_\_\_\_  
Regional SRC Chair's Printed Name

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date of Approval

\_\_\_\_\_  
State/National SRC Chair's Printed Name

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date of Approval

(where applicable)

# Registered Research Institutional/Industrial Setting Form (1C)

This form must be completed by the scientist supervising the student research conducted in a registered research institution (*e.g.*, universities, medical centers, NIH, correctional facilities, 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) What did the student do that showed creativity and ingenuity?

(Did the student show creativity in experimental design, development of techniques or equipment, arrival at conclusions, etc.)

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.)

5) Student research projects dealing with human subjects, nonhuman vertebrate animals or rDNA require review and approval by institutional regulatory board (IRB/IACUC). **Copy of approval(s) must be attached.**

\_\_\_\_\_  
Scientist's Printed Name

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Title

\_\_\_\_\_  
Institution

\_\_\_\_\_  
Date Signed

\_\_\_\_\_  
Address

\_\_\_\_\_  
Phone

## Qualified Scientist Form (2)

Required for research involving animals, controlled substances and pathogens; may be required for rDNA, tissues, 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, please explain qualifications in student's area of research:

Position: \_\_\_\_\_ Institution: \_\_\_\_\_

Address: \_\_\_\_\_ Phone: \_\_\_\_\_

- 1) Will nonhuman vertebrate animals be used? . . . . .  yes  no
- a) If yes, were alternatives (see page 17) 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 human blood, blood products 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 involvement. Attach any surveys or questionnaires.
- 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. 14.)

- Minimal risk where informed consent is recommended, but not required.
- Minimal risk where informed consent is **REQUIRED**.
- More than minimal risk where informed consent & a Qualified Scientist are **REQUIRED**

*Neither the Adult Sponsor, parents, the Qualified Scientist, nor the Designated Supervisor who oversees a specific project is permitted to serve on the IRB reviewing that project. This eliminates conflict of interest.*

## IRB SIGNATURES (a minimum of three signatures is required)

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

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 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 stated 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 \_\_\_\_\_

**Non-Human Vertebrate Animal Form (5)**  
**Required for all research involving nonhuman vertebrate animals.**  
**(SRC approval required before experimentation.)**

ATTENTION: *This form is not necessary if student uses only tissue from non-human vertebrates in the project.*

Student's Name \_\_\_\_\_

Title of Project \_\_\_\_\_

**To be completed by Student Researcher:**

1. Genus, species, common name of animal(s) used. **(Use separate animal form for each species used.)**  
\_\_\_\_\_
2. Where will animals be obtained? (See p. 17); Pet store animals, except fish and those used for behavioral studies, are inappropriate for research.  
\_\_\_\_\_
3. How many animals will be used? \_\_\_\_\_ Average weight \_\_\_\_\_
4. Cage size \_\_\_\_\_ Number of animals per cage \_\_\_\_\_
5. Type of food \_\_\_\_\_
6. How often fed and given water? \_\_\_\_\_
7. Type of bedding used (Do not use cedar chips, newspaper, or paper towels.) \_\_\_\_\_
8. Where will animals be housed? \_\_\_\_\_
9. Name the veterinarian who will provide veterinary medical and nursing care in case of illness or emergency **(required)**.  
D.V.M. \_\_\_\_\_ Name of Facility \_\_\_\_\_ Phone \_\_\_\_\_
10. Will animals be euthanized?     Yes     No  
If yes, why and by what method? \_\_\_\_\_ By whom? \_\_\_\_\_  
If no, what will happen to the animals after experimentation? \_\_\_\_\_

**To be completed by Animal Care Supervisor:**

Name \_\_\_\_\_

Position \_\_\_\_\_

Institution \_\_\_\_\_

Address \_\_\_\_\_

Office Phone \_\_\_\_\_

I certify that I have discussed this research with the student prior to its start and will supervise and will accept primary responsibility for the quality of care and handling of the live vertebrate animals used by the above named student. I further certify that I am knowledgeable in the proper care and handling of laboratory animals, and meet prevailing animal care supervisory requirements. When an animal must be euthanized, I certify that I will perform the procedure, using recommended agents.

Animal Care Supervisor's Printed Name \_\_\_\_\_ Signature \_\_\_\_\_ Date of Approval \_\_\_\_\_  
(Must be prior to experimentation.)

Title \_\_\_\_\_ Phone \_\_\_\_\_

Institution and Address \_\_\_\_\_

# Human and Non-Human Vertebrate Animal Tissue Form (6)

Required for all projects using viable fresh tissue, organs, human or animal parts, including blood, blood products, teeth, primary cell cultures, and body fluids (plant tissue is excluded).  
(SRC approval required before experimentation.)

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) Human or animal material:

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

b) If to be obtained from an animal source, will the animal be euthanized?  Yes  No  
If yes, please explain why.

## To be completed by provider of tissue if tissue is obtained from a noncommercial source:

a) Human blood and blood products will be tested and documented free of AIDS and hepatitis B and C antibodies and antigens. Human teeth will be certified free of blood and blood products.

\_\_\_\_\_  
Certifying Authority's Printed Name

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date Signed

**OR**

b) I certify that tissues and 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.

\_\_\_\_\_  
Qualified Scientist's Printed Name

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date Signed

I certify that the above listed materials will be provided by me and that the student listed will not be involved in the direct acquisition of the samples provided or purchased.

\_\_\_\_\_  
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 - Describe and Submit:  Abstract  Research Plan (1A) with Research Plan Attachment

2002 -

2001 -

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 in the current year.

\_\_\_\_\_  
Student's Printed Name

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date of Signature