TVSEF Student Application, Research Plan and Approval (TVSEF-1)

This completed form is required for ALL projects. Type or print all information requested. Every question must be answered. This form MUST be displayed with your project at the Fair.

1) Student's Name_____ e-mail_____ Grade____

2) Title of Project_____

3) Home Address_____ Phone No._____

City_____ State_____ Zip Code_____

4) School, City, State and Zip Code_____

5) Teacher's Name_____ email_____

Phone No._____ Fax No_____

6) Adult Sponsor*_____ Relationship_____

Phone No._____ Fax No_____

7) Competing as: (check one) ☐ Individual ☐ Team (3 members maximum)**

8) Category (check one) (**each team member must complete an application)

Junior Division (Grades 7–8)

☐ 1. Behavioral & Social Sciences (BS)
☐ 2. Biological Science (BL)
☐ 3. Math & Computer Science (MC)
☐ 4. Physical Science (PS)
☐ 5. Team (TM)

Senior Division (Grades 9–12)

☐ 1. Behavioral & Social Science (BS)
☐ 2. Biochemistry (BC)
☐ 3. Botany (BT)
☐ 4. Chemistry (CH)
☐ 5. Computer Science (CS)
☐ 6. Earth & Space Science (ES)
☐ 7. Engineering (EN)
☐ 8. Gerontology (GN)
☐ 9. Environmental Science (EV)
☐ 10. Mathematics (MA)
☐ 11. Medicine & Health (MH)
☐ 12. Microbiology (MB)
☐ 13. Physics (PH)
☐ 14. Zoology (ZG)
☐ 15. Team (TM)

9) Is this a continuation from the previous year's science project? ☐ Yes ☐ No

10) Starting date of this year's experimentation (must be stated)_____ Month _____ Day _____ Year

11) Where will you complete your lab work? ☐ School ☐ Home ☐ Field ☐ Research Institute

12) Check all items that apply to research. While doing my project, I will be experimenting with:

☐ Humans (requires prior SRC/IRB approval; complete Forms: Checklist, 1, 4 [1A, 2, 3 if required])
☐ Nonhuman Vertebrate Animals (requires prior SRC approval; complete Forms: Checklist, 1, 2, **5 [1A, 3, if required])
☐ Recombinant DNA** (requires prior SRC approval; complete Form; Checklist, 1, 2, [1A, if required])
☐ Pathogens (requires prior SRC approval; complete Forms: Checklist, 1, 2** [1A, 3, if required])
☐ Controlled Substances** (requires prior SRC approval; complete Forms: Checklist, 1, 2 [1A, 3, if required])
☐ Human/Animal Tissue** (requires prior SRC approval: complete Forms: Checklist 1, 2 1A and 6, if required])
☐ Hazardous Substances or Devices (complete Forms: Checklist, 1, 3 [1A, if required])
☐ NONE OF THE ABOVE (complete Forms: Checklist, 1 [1A, if required])

* Adult sponsor MUST be a teacher, scientist, or engineer

** Senior Division ONLY

TVSEF-1 (continued)

Student's Name_____

13) Research Plans

Complete the following information in detail. (See examples in the TVSEF Step-By-Step Student Guide for assistance. Contact your teacher or the TVSEF staff for a copy, or visit our website at http://tvsef.llnl.gov). Attach a separate sheet if necessary.

A. Problem or question being addressed.

B. Hypothesis.

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

For human research, include survey or questionnaires if used, and critically evaluate the risk.
For nonhuman vertebrate animals research, you must briefly discuss potential alternatives and present reasons for why alternatives are not suitable.

TVSEF-1 (continued)

This completed form is required for ALL individuals, including team participants.

Student's Name_____

14). TVSEF Approvals **(Required for ALL projects).**

a) Student Acknowledgment:

I understand the risks and possible dangers to me of the proposed **Research Plan**. I have read and will adhere to all TVSEF/Intel ISEF Rules when conducting this research.

Student's Printed Name	Signature	Date Acknowledged

b) Parent/Guardian Approval:

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

Parent/Guardian's Printed Name	Signature	Date of Approval

c) Adult Sponsor* Approval:

I have read the **Research Plan** prior to experimentation and reviewed the Checklist for Adult Sponsor with the student. I agree to sponsor the student named above and assume responsibility for compliance with all TVSEF Fair/Intel ISEF Rules as they pertain to the **Research Plan.**

Adult Sponsor's Printed Name	Signature	Date of Approval

d) TVSEF SRC Approval**

SRC/IRB Approval Before Experimentation

The Committee 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	Approved
	Date of Approval

e) TVSEF SRC/IRB Approval and Application Acceptance **(Required for ALL projects).**

This project adheres to the **Research Plan** and complies with the rules of the TVSEF and Intel ISEF Science Fair.

TVSEF SRC/IRB Chair's Approval	Date of Approval

* Note: Adult sponsor must be a teacher, scientist, or engineer.

** Some projects need prior approval (i.e., see Item 12).

TVSEF Checklist for Adult Sponsor*/Safety Assessment form

This form must be completed by the Adult Sponsor and is required for ALL participants.
It must be completed prior to experimentation.

Student's Name:_____

Title of Project_____

1) ☐ I have reviewed and signed the Application, Research Plan and Approval Form (TVSEF-1).

2) ☐ The student and a parent/guardian have signed the Approval Form.

3) ☐ This project involves the following area(s)and requires prior approval by the TVSEF SRC/IRB before experimentation begins:

- ☐ **Human Subjects**
- ☐ **Nonhuman Vertebrate Animals**
- ☐ **Pathogenic Agents****
- ☐ **Controlled substances**
- ☐ **Recombinant DNA**
- ☐ **Human or Animal Tissue (Senior Division only)**
- ☐ **Hazardous substances or devices (complete Item #5)**

** 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. Prior approval from the SR/IRB is not required.

5) ☐ This project involves the hazardous substances or devices checked below. A Designated Supervisor will provide proper supervision to the student.

- ☐ **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,* write to the American Chemical Society, Career Publications, 1155 16th St., NW, Washington, DC 20036 (202 / 872-4512).
- ☐ **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, write to the Food and Drug Administration, Office of Compliance, 2098 Gaither Rd. Rockville, MD 20850 (301 / 594-4692).
- ☐ **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

* Note: Adult sponsor must be a teacher, scientist, or engineer.