## **Checklist for Adult Sponsor (1)**

This completed form is required for ALL projects.

To be completed by the Adult Sponsor in collaboration with the student researcher(s): Student's Name(s): Project Title: 1. 

I have reviewed the ISEF Rules and Guidelines, including the science fair ethics statement. ☐ I have reviewed the student's completed Student Checklist (1A) and Research Plan/Project Summary. ☐ 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 Potentially Hazardous Biological Agents ☐ Vertebrate Animals ☐ Microorganisms ☐ rDNA ☐ Items to be completed for **ALL PROJECTS** ☐ Adult Sponsor Checklist (1) ☐ Research Plan/Project Summary ☐ Student Checklist (1A) ☐ Approval Form (1B) Regulated Research Institutional/Industrial Setting Form (1C) (when applicable; after completed experiment) ☐ Continuation/Research Progression Form (7) (when applicable) Additional forms required if the project includes the use of one or more of the following (check all that apply): Humans, including student designed inventions/prototypes. (Requires prior approval by an Institutional Review Board (IRB); see full text of the rules.) Human Participants Form (4) or appropriate Institutional IRB documentation ☐ Sample of Informed Consent Form (when applicable and/or required by the IRB) 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 school/home/field research site (SRC prior approval required Uvertebrate 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 IBC, see 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) The following are exempt from prior review but require a Risk Assessment Form 3: projects involving protists, archae and similar microorganisms, for projects using manure for composting, fuel production or other non-culturing experiments, projects using color change coliform water test kits, microbial fuel cells, and projects involving decomposing vertebrate organisms. Hazardous Chemicals, Activities and Devices (No SRC prior approval required, see full text of the rules.) Risk Assessment Form (3) Qualified Scientist Form (2) (required for projects involving DEA-controlled substances or when applicable) ☐ Other Risk Assessment Form (3) ☐ I attest to the information checked above and that I have read and agree to abide by the science fair ethics statement. Adult Sponsor's Printed Name Date of Review (mm/dd/yy) Signature

Email

Phone

# **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: (if multiple schools, list of the team leader or list all schools).	School Phone:
Sc	hool Address:	
4.	Adult Sponsor:	Phone/Email:
5.	Does this project need SRC/IRB/IACUC or other pre-	-approval? ☐ Yes ☐ No Tentative start date:
6.	Is this a continuation/progression from a previous yea. If yes, attach the previous year's Abstract b. Explain how this project is new and different from Continuation/Research Progression Form (7); in	and Research Plan/Project Summary previous years on
7.	This year's experimentation/data collection (include	forms for all previous years):
	Actual Start Date: (mm/dd/yy)	End Date: (mm/dd/yy)
8.	Where will you conduct your experimentation? (che	ck all that apply)
	☐ Research Institution ☐ School ☐ Field	☐ Home ☐ Other:
9.	Source of Data:  □ Collected self/mentor □ Other List all URL(	(s) in Research Plan:
10.	List the name and address of all non-home and nor virtually or on-site:	
Na	me	
Ad	dress:	
Ph	one/email	

- 11. Complete a Research Plan/Project Summary following the Research Plan/Project Summary instructions and attach to this form.
- 12. An abstract is required for all projects after experimentation.

## **Research Plan/Project Summary Instructions**

# A complete Research Plan/Project Summary is required for ALL projects and must accompany Student Checklist (1A).

- 1. The Research Plan is to be written prior to experimentation following the instructions below to detail the rationale, research question(s), methodology, and risk assessment of the proposed research.
- 2. If changes are made during the research prior to competing in an affiliated fair, such changes can be added to the original research plan as an addendum, recognizing that some changes may require returning to the IRB or SRC for appropriate review and approvals. If no additional approvals are required, this addendum serves as a project summary to explain research that was conducted.
- 3. If no changes are made from the original research plan, no project summary is required.
  - Some studies, such as an engineering design or mathematics projects, will be less detailed in the initial project plan and will change through the course of research. If such changes occur, a project summary that explains what was done is required and can be appended to the original research plan.
  - The Research Plan/Project Summary should include the following:
    - a. **RATIONALE:** Include a brief synopsis of the background that supports your research problem and explain why this research is important and if applicable, explain any societal impact of your research.
    - b. **RESEARCH QUESTION(S), HYPOTHESIS(ES), ENGINEERING GOAL(S), EXPECTED OUTCOMES:** How is this based on the rationale described above?
    - c. Describe the following in detail:
      - · List of materials:
      - **Procedures:** Detail all procedures and experimental design including list of materials, methods for data collection, and when applicable, the source of data used. Describe your project delineating what you will do and what will be done by your mentor.
      - Risk and Safety: Identify any potential risks and safety precautions needed.
      - Data Analysis: Describe the procedures you will use to analyze the data/results.
    - d. **BIBLIOGRAPHY:** List 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.

# Items 1-4 below are subject-specific guidelines for additional items to be included in your research plan/project summary as applicable.

#### 1. Human participants research:

- a. **Participants:** Describe age range, gender, racial/ethnic composition of participants. Identify vulnerable populations (minors, pregnant women, prisoners, mentally disabled or economically disadvantaged).
- b. Recruitment: Where will you find your participants? How will they be invited to participate?
- c. **Methods:** What will participants be asked to do? Will you use any surveys, questionnaires or tests? If yes and not your own, how did you obtain? Did it require permissions? If so, explain. What is the frequency and length of time involved for each subject?
- d. **Risk Assessment:** What are the risks or potential discomforts (physical, psychological, time involved, social, legal, etc.) to participants? How will you minimize risks? List any benefits to society or participants.
- e. **Protection of Privacy:** Will identifiable information (e.g., names, telephone numbers, birth dates, email addresses) be collected? Will data be confidential/anonymous? If anonymous, describe how the data will be collected. If not anonymous, what procedures are in place for safeguarding confidentiality? Where will data be stored? Who will have access to the data? What will you do with the data after the study?
- f. **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:

- a. Discuss potential ALTERNATIVES to vertebrate animal use and present justification for use of vertebrates.
- b. Explain potential impact or contribution of this research.
- c. Detail all procedures to be used, including methods used to minimize potential discomfort, distress, pain and injury to the animals and detailed chemical concentrations and drug dosages.
- d. Detail animal numbers, species, strain, sex, age, source, etc., include justification of the numbers planned.
- e. Describe housing and oversight of daily care.
- f. Discuss disposition of the animals at the end of the study.

#### 3. Potentially hazardous biological agents research:

- a. Give source of the organism and describe BSL assessment process and BSL determination.
- b. Detail safety precautions and discuss methods of disposal.

#### 4. Hazardous chemicals, activities & devices:

- a. Describe Risk Assessment process, supervision, safety precautions and specific methods of disposal.
- b. Safety Data Sheets are not necessary to submit with paperwork.

# **Approval Form (1B)**

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

1. To Be Completed by Student and Parent	t			
<ul> <li>a. Student Acknowledgment:</li> <li>I understand the risks and possible dangers t</li> <li>I have read the ISEF Rules and Guidelines and this research.</li> <li>I have read and agree to uphold all aspects of</li> </ul>	d wi	ll adhere to all Inter	national	Rules when conducting
Student researchers are expected to maintain the highest emisconduct are not condoned at any level of research or coplagiarism, forgery, use or presentation of other researcher projects will fail to qualify for competition in affiliated fairs	omp r's w	etition. Such practic ork as one's own, and	es includ	e but are not limited to
Student's Printed Name Signature			Date A	Acknowledged (mm/dd/yy)
b. Parent/Guardian Approval: I have read and und Research Plan/Project Summary. I consent to n			ossible d	
Parent/Guardian's Printed Name Signature				cknowledged (mm/dd/yy) t be prior to experimentation.)
2. To be completed by the local or affiliated (Required for projects requiring prior SRC/IRB API			as appro	priate.)
a. Required for projects that need prior SRC/IRB approval BEFORE experimentation (humans, vertebrates or potentially hazardous biological agents).	OR	Research Institu	utions with	nducted at all Regulated n no prior fair SRC/IRB
The SRC/IRB has carefully studied this project's <b>Research Plan/</b>				a regulated research institution ), was reviewed and approved
<b>Project Summary</b> and all the required forms are included. My signature indicates approval of the <b>Research Plan/Project</b>		1 ' ' '		rd before experimentation and Attach (1C) and any required
Summary before the student begins experimentation.		institutional approv		
SRC/IRB Chair's Printed Name				
		SRC Chair's Printed I	Name	
Signature Date of Approval (mm/dd/yy) (Must be prior to experimentation.)				
		Signature		Date of Signature (mm/dd/yy) (May be after experimentation)
3. Final ISEF Affiliated Fair SRC Approval (Re	qui	red for ALL Pro	jects)	
SRC Approval After Experimentation and Before Competition I certify that this project adheres to the approved Research Pla		•		th all ISEF Rules.
Regional SRC Chair's Printed Name Signature			Date	e of Approval (mm/dd/yy)

Signature

State/National SRC Chair's Printed Name

(where applicable)

Date of Approval (mm/dd/yy)

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

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

Student's Name(s)	
Title of Project	
To be completed by the Supervising Adult in the Setting (NOT the Stud (Responses must be on the form as it is required to be displayed at student's pro-	•
Research was supported at my work site:  1. The student experience at your work site included:  • Used equipment and/or received data  • Minimal interaction with our group  • Mentored by me or someone else from our group  • Worked as a sub-set of our ongoing research  • Had an independent project from our group	<ul> <li>☐ Yes</li> <li>☐ No</li> </ul>
2. Please describe the independent and/or creative work done by the s but particularly in developing the hypotheses or engineering goals of	
<ol> <li>Detail the student's role in conducting the research (e.g. data collec Differentiate what the student observed and the student actually dic</li> </ol>	
4. Provide details regarding data provided to the student:	
<ol> <li>Did the student(s) work on the project as part of a group?</li> <li>Were there other high school students present? If yes, please list the was related or different from the work of this projecct.</li> </ol>	☐ Yes ☐ No ne students names and describe how their work
6. If this project is under a grant and needs to be acknolwedged, pleas	se list the grant statement here.
I attest that the student has conducted the work as indicated above and that regulatory board (IRB/IACUC/IBC) has been obtained. Copies are attached if student will be presenting this work publicly in competition and I have comm requirements for my review and/or restrictions of what is publicized.	if applicable. I further acknowledge that the
Direct Supervisor's Printed Name Signature	Title
Institution	Date Signed (must be after experimenta- tion) (mm/dd/yy)
Education/Experience/Training	Email/Phone

## **Qualified Scientist Form (2)**

May be required for research involving human participants, vertebrate animals, potentially hazardous biological agents, and hazardous substances and devices. Must be completed and signed before the start of student experimentation.

St	udent's Name(s)				
Tit	le of Project				
To	be completed by the Qualified Scientist:				
Sc	ientist Name:				
Ed					
Ex	perience/Training as relates to the student's area of research:				
	sition/Institution: Email/Phone:				
1.	Have you reviewed the ISEF rules relevant to this project and the fair ethics statement relevant to this project?	science	☐ Yes	□ No	
2.	<ul> <li>Will any of the following be used?</li> <li>a. Human participants</li> <li>b. Animals</li> <li>c. Potentially hazardous biological agents (microorganisms, rDI tissues, including blood and blood products)</li> <li>d. Hazardous substances and devices</li> </ul>	NA and	☐ Yes☐ Yes☐ Yes☐ Yes☐ Yes☐ Yes☐ Yes☐ Yes	□ No □ No □ No	
3	Will this study be a sub-set of a larger study?		☐ Yes		
4.	Will you directly supervise the student?  Did you provide any data; if yes, please provide source or descri	be	☐ Yes☐ Yes	□ No □ No	

#### To be completed by the Qualified Scientist:

I certify that I have reviewed and approved the Research Plan/Project Summary prior to the start of the experimentation. If the student or Direct 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/Project Summary.

Qualified Scientist's Printed Name

Signature

Date of Approval (mm/dd/yy)

# To be completed by the Direct Supervisor when the Qualified Scientist cannot directly supervise.

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

Direct Supervisor's Printed Name

Experience/Training of Designated Supervisor

Signature Date of Approval (mm/dd/yy)

Phone email

# **Risk Assessment Form (3)**

Must be completed before experimentation; recommended for all projects. May be required for projects involving Human Participants, Hazardous Chemicals, Materials or Devices or Potentially Hazardous Biological Agents.

Student's Name(s)		
Ti	tle of Project	
	be completed by the Student Researcher(s) in collaboration with Direct Supervisor/Qualified cientist: (All questions must be answered; additional page(s) may be attached.)	
1.	Identify and assess the risks and hazards involved in this project.	
2.	a) List all hazardous chemicals, activities or devices to be used; b) identify and list all microorganisms to be used that are exempt from pre-approval (see Potentially Hazardous Biological Agent rules).	
3.	Describe the safety precautions and procedures that will be used to reduce the risks. If you conducted field work, include permits received and safety plans, as applicable.	
4.	Describe the specific disposal procedures that will be used (when applicable).	
5.	List the source(s) of safety information.	
	To be completed and signed by the Direct 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/Project Summary and the International Rules, including the science fair ethics statement and will provide direct supervision.	
Ī	Direct Supervisor's Printed Name Signature Date of Review (mm/dd/yy)	
-	Experience/Training as relates to the student's area of research	
-	Position/Institution Phone or email contact information	

# **Human Participants Form (4)**

Required for all research involving human participants not at a Regulated Research Institution. If at a Regulated Research Institution, use institutional approval forms for documentation of prior review and approval. (IRB approval required before recruitment or data collection.)

Student's Name(s)	Title of Project	
Adult Sponsor  MUST BE COMPLETED BY STUDENT RESEARCHER(S) IN COLLABO	Phone/Email  PRATION WITH THE ADULT SPONSO	DR/DIRECT SUPERVISOR/QUALIFIED
SCIENTIST:  1.	g in my project or other documents stained. juired by the IRB.	provided to human participants.
BELOW	- IRB USE ONLY	
MUST be completed by Institutional Review Board (IRB) after review valid. (If not approved, return paperwork to the student with instruction approved with Full Committee Review (3 signatures required 1. Risk Level (check one):  2. Qualified Scientist (QS) Required (Form 2):  3. Risk Assessment Required (Form 3):  4. Written Minor Assent and written parental permission    1 Yes	tions for modifications.)  ed) and the following conditions: (Al Minimal Risk	ore than Minimal Risk risk assessment form 3 is required).  The property of the second
Print Name below	Degree/Professional License	
Signature	Date (prior to experimentation)	Email
Educator		
Print Name below	Degree/Professional License	
Signature	Date (prior to experimentation)	Email
School Administrator		
Print Name below	Degree/Professional License	
Signature	Date (prior to experimentation)	Email

### **Human Informed Consent Form**

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

This form is used to provide information to the research participant (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.

,	on, a copy of any survey or questionnaire must be attached.
Student Researcher(s):	
Title of Project:	
I am asking for your voluntary participation in my sc project. If you would like to participate, please sign i	ience fair project. Please read the following information about the in the appropriate area below.
Purpose of the project:	
If you participate, you will be asked to:	
Time required for participation:	
Potential Risks of Study:	
Benefits:	
How confidentiality will be maintained:	
If you have any questions about this study, feel free	to contact:
Adult Sponsor/QS/DS:	Phone/email:
. , , , , ,	you decide not to participate there will not be negative participate, you may stop participating at any time and you may
By signing this form I am attesting that I have read a assent to participate or permission for my child to p	nd understand the information above and I freely give my consent/articipate.
Adult Informed Consent or Minor Assent	Date Reviewed & Signed:(mm/dd/yy)
Research Participant Printed Name:	Signature:
Parental/Guardian Permission (if applicable)	Date Reviewed & Signed: (mm/dd/yy)
Parent/Guardian Printed Name:	Signature:

# **Vertebrate Animal Form (5A)**

Required for all research involving vertebrate animals that is conducted in a school/home/field research site. (SRC approval required before experimentation.)

Student's Name(s)			
Title of Project			
To be completed by Studen	t Researcher:		
1. Common name (or Genus, s	pecies) and number of an	imals used.	
	ding, type of food, frequen		age/pen size, number of animals ow often animal is observed, etc.
3. What will happen to the anim	mals after experimentatior	n?	
4. Attach a copy of wildlife lice	enses or approval forms, as	s applicable	
	n the qualified scientist, di	rect supervisor or a vete	weight loss be investigated and rinarian. If applicable, attach this petition.
☐ Veterinarian and Direct Sup	d for agricultural, behavior D. Please have applicable person ervisor REQUIRED. Please have apsor and Qualified Scientist REQUIPLE Form (2).	pral or nutritional studies in sign below.  pplicable persons sign below.  UIRED. Please have applicable attended that may be conducted.  Date of A	persons sign below and have
To be completed by Veterina  I have reviewed this research the student before the start of the start	and animal husbandry with of experimentation.  dosages of prescription olements.  ical and nursing care in case	Scientist when appl  I have reviewed th the student before accept primary resoft the animals in the	is research and animal husbandry with the start of experimentation and I sponsibility for the care and handling
Signature	Date of Approval (mm/dd/yy)	Signature	Date of Approval (mm/dd/yy)

# **Vertebrate Animal Form (5B)**

Required for all research involving vertebrate animals that is conducted in at a Regulated Research Institution. (IACUC approval required before experimentation. Form must be completed and signed after experimentation.)

St	tudent's Name(s)					
Ti	itle of Project					
	Title and Protocol Number of IACUC Approved Project					
	o be completed by Qualified Scientist or Principal Investigator:  Species of animals used: Number of animals used:					
2.	Describe, in detail, the role of the student in this project: animal procedures and related equipment that were involved, oversight provided and safety precautions employed. (Attach extra pages if necessary.)					
3.	. Was there any weight loss or death of any animal? If yes, attach a letter obtained from the qualified scientist, direct supervisor or a veterinarian documenting the situation and the results of the investigation.					
4.	. Did the student's project also involve the use of tissues? □ No □ Yes; complete Forms 6A and 6B					
5.	What laboratory training, including dates, was provided to the student?					
6.	. <b>Attach a copy of the Regulated Research Institution IACUC Approval.</b> A letter from the Qualified Scientist or Principal Investigator is not sufficient.					
	Qualified Scientist/Principal Investigator					
-	Printed Name					
-	Signature Date (mm/dd/yy)					

# Potentially Hazardous Biological Agents Risk Assessment Form (6A)

Required for research involving microorganisms, rDNA, fresh/frozen tissue (including primary cell lines, human and other primate established cell lines and tissue cultures), blood, blood products and body fluids.

SRC/IACUC/IBC approval required before experimentation.

Student's N	ame(s)		
Title of Proj	ect		
•	-		SUPERVISOR in collaboration with the student researcher(s). ditional page(s) may be attached.
1. Identify p			sed in this experiment. Include the strain, source, quantity m.
2. Describe	the biosafety level of t	the experimentation site	
3. Describe	the procedures that w	vill be used to minimize i	risk (personal protective equipment, safety cabinet type, etc.).
		al of all cultured materia RI, include the <b>BSL-2 che</b>	ls and other potentially hazardous biological agents. ecklist
SECTION 2: 1  1. What train		eceive for this project?	
2. Experience	e/training of Direct S	upervisor as it relates to	the student's area of research (if applicable).
SECTION 3:	For ALL CELL LINES.	MICROORGANISMS AN	ID TISSUES - To be completed by the QUALIFIED SCIENTIST
or Direct Su	pervisor - Check the a	appropriate box(es) bel	ow:
Regu of th	ılated Research Institut	tion, but will be conducte	ssues to be used in this study will NOT be conducted at a d at a (check one)BSL-1 orBSL-2 laboratory (include a copy ewed by the local SRC and the procedures have been approved
or hi		Research Institution and	stant Organisms (MDROs). It has been conducted in a BSL-2 the required IBC pre-approval is attached.
Rese		as approved by the appro	ssues to be used in this study will be conducted at a Regulated priate institutional board prior to experimentation; institutional
			Date of IBC/IACUC approval
		croorganisms/cell lines/tis UC or IBC approval for th	ssues to be used will be conducted at a Regulated Research Institution, is type of study.
CERTIFICAT	ION-To be SIGNED b	y the QUALIFIED SCIEN	ITIST or Direct Supervisor
			ng documentation and acknowledges the accuracy of the information ne) $\square$ BSL-1/ $\square$ BSL-2 study, and will be conducted in an appropriate
QS/DS Printed	Name S	ignature	Date of review (mm/dd/yy)

## **Human and Vertebrate Animal Tissue Form (6B)**

Required for research involving fresh/frozen tissue (including primary cell lines, human and other primate established cell lines and tissue 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.

Stı	tudent's Name(s)		
Tit	tle of Project		
То	o be completed by Student Resea	rcher(s):	
1.	What vertebrate animal tissue will be u  Fresh or frozen tissue sample Fresh organ or other body part Blood Body fluids Primary cell/tissue cultures Human or other primate estab	t	that apply.
2.	Where will the above tissue(s) be ob	otained? If using an establ	lished cell line include source and catalog number.
3.		ne of the research institut	conducted at a research institution attach a copy of tion, the title of the study, the IACUC approval num- ed, attach a copy of IRB approval.
	him/her by myself or qualified person were euthanized for a purpose other <b>AND/OR</b> I certify that the blood, blood produc	ely with de-identified organs, nnel from the laboratory; and than the student's research. ets, tissues or body fluids in t	s, tissues, cultures or cells that will be supplied to d that if vertebrate animals were euthanized they
F	Printed Name Si	ignature	Date of Approval (mm/dd/yy) (Must be prior to experimentation.)
=	Title		Phone/Email
	Institution		

# **Continuation/Research Progression Projects Form (7)**

Required for projects that are a continuation/progression in the same field of study as a previous project. This form must be accompanied by the previous year's abstract and Research Plan/Project Summary.

Components	<b>Current Research Project</b>	Previous Research Project: Year:
. Title		
. Change in goal/ purpose/objective		
3. Changes in methodology		
I. Variable studied		
5. Additional changes		
ttached are:	ract and Research Plan/Project Summary	/ Year