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 Intel ISEF Rules and Guidelines. 2. I have reviewed the student's completed Student Checklist (1A) and Research Plan. 3) \(\Box \) I have worked with the student and we have discussed the possible risks involved in the project. 4) 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 ☐ Tissues 5) Items 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 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** (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.) ☐ 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 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, for projects using manure for composting, fuel production or other non-culturing experiments, for projects using color change coliform water test kits, microbial fuel cells, and for projects involving decomposing vertebrate organisms ☐ Hazardous Chemicals, Activities and Devices (No 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) Adult Sponsor's Printed Name Date of Review Signature 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/progression from a previou If Yes:	s year? Yes No
	a) Attach the previous year's \square Abstract and	☐ Research Plan
	b) Explain how this project is new and different fr Form (7)	rom previous years on 🛘 Continuation/Research Progression
6.	This year's laboratory experiment/data collection	1: (must be stated (mm/dd/yy))
	Start Date: (mm/dd/yy)	End Date: (mm/dd/yy)
7.	Where will you conduct your experimentation? (c	check all that apply)
	☐ Research Institution ☐ School ☐ Field	☐ Home ☐ Other:
8.	List name and address of all non-school work site	(s):
Na	ame:	
	ddress:	
Ph	none:	
9.	Complete a Research Plan/Project Summary foll	owing the Research Plan instructions and attach to this form.
10). An abstract is required for all projects after exp	perimentation.

Research Plan/Project Summary Instructions

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

The Research Plan/Project Summary is a succinct detailing of the rationale, research question(s), methodology, and risk assessment of your research project and should be completed before the start of your experimentation. Any changes you make to your study should to be added to the final document.

The research plan for ALL projects should include the following:

- a. What is the **RATIONALE** for your project? Include a brief synopsis of the background that supports your research problem and explain why this research is important scientifically and if applicable, explain any societal impact of your research.
- b. State your HYPOTHESIS(ES), RESEARCH QUESTION(S), ENGINEERING GOAL(S), EXPECTED OUTCOMES. How is this based on the rationale described above?
- c. Describe in detail your **RESEARCH METHODS AND CONCLUSIONS**.
 - **Procedures:** Detail all procedures and experimental design including methods for data collection. Describe only your project. Do not include work done by mentor or others.
 - Risk and Safety: Identify any potential risks and safety precautions needed.
 - **Data Analysis:** Describe the procedures you will use to analyze the data/results that answer research questions or hypotheses.
- **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.

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:

- Participants. 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 participants? 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?
- Risk Assessment
 - 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, birth dates, 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, source, 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 research:

- 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

. 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

	After Experimentation a s project adheres to the	-		_	=
3. Final Intel	ISEF Affiliated Fair	SRC Approval	(F	Required for Al	L Projects)
Signature		roval (mm/dd/yy) r to experimentation.)		Signature	Date of Approval (mm/dd/yy)
SRC/IRB Chair's P	rinted Name			SRC Chair's Printe	ed Name
a) Required fo approval BE (humans, ve biological ag The SRC/IRB ha Plan and all the signature indica	pr projects requiring pri r projects that need price. FORE experimentation rtebrates or potentially has gents) s carefully studied this p required forms are inclustes approval of the Rese ins experimentation.	or SRC/IRB nazardous roject's Research	OVA	b) Required for Research Ins approval. This project was a institution (not he reviewed and approved before exp	research conducted at all Regulated titutions with no prior fair SRC/IRB conducted at a regulated research ome or high school, etc.), was proved by the proper institutional erimentation and complies with the attach (1C) and required institutional
	n's Printed Name	Signature	air	SRC	Date Acknowledged (mm/dd/yy) (Must be prior to experimentation.)
					Date Acknowledged (mm/dd/yy) (Must be prior to experimentation.) sible dangers involved in the Research
plagiarism, forg projects will fai	gery, use or presentation Il to qualify for competi	n of other researc	her's	work as one's ow	ompetition. Such practices include n, and fabrication of data. Fraudulen
• I have	research. e read and will abide by	_			omnotition Such practices include

State/National SRC Chair's Printed Name Signature

(where applicable)

Date of Approval

Regulated Research Institutional or 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(s <u>)</u>			
Title of Project			
To be completed by the Supervis (Responses must remain on the form	0 -	the Student(s)) after experimentation: It student's project booth.)	
The student(s) conducted research at	my work site:		
a. □ to use the equipment1. Have you reviewed the Intel ISEF		orm experiment(s)/conduct research ☐ Yes ☐ No	
2. Is this research a subset of your w	vork?	☐ Yes ☐ No	
 How did the student get the idea (e.g. Was the project assigned, pic 	for her/his project? :ked from a list, an original student	rt idea, etc.)	
 Did the student(s) work on the pro If yes, how large was the group ar 	, .	o? Yes No s it (students, group of adult researchers, et	c.)
5. What specific procedures or equipole Please list and describe. (Do not li	pment did the student(s) actually uist procedures student only observ		
6. How independent or creative was	the student's/students' work?		
, ,		ate animals or potentially hazardous biologic bard (IRB/IACUC/IBC). Copy of approval(s) m	
Supervising Adult's Printed Name	Signature	Title	
Institution		Date Signed (must be after experimentation	on)
Address		Email/Phone	

Qualified Scientist Form (2)

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

Student's Name(s)				
Title of Project				
To be completed by the Qualified Scientis	t:			
Scientist Name:				
Educational Background: Experience/Training as relates to the student's		Degree(s):		
Position:	Institution:			
Address:	Email/Pho	ne:		
Have you reviewed the Intel ISEF rules relev			☐ Yes	□No
 2. Will any of the following be used? a. Human participants b. Vertebrate animals c. Potentially hazardous biological agents including blood and blood products) d. DEA-controlled substances 3. Was this study a sub-set of a larger study? 4. Will you directly supervise the student? a. If no, who will directly supervise and ser 			☐ Yes☐ Yes☐ Yes☐ Yes☐ Yes☐ Yes☐ Yes☐ Yes	□ No
To be completed by the Qualified Scientist: I certify that I have reviewed and approved the Rese Plan prior to the start of the experimentation. If the or Designated Supervisor is not trained in the neces procedures, I will ensure her/his training. I will provi supervision during the research. I have a working kr the techniques to be used by the student in the Res I understand that a Designated Supervisor is require the student is not conducting experimentation under supervision. Qualified Scientist's Printed Name	earch student ssary de advice and nowledge of earch Plan. ed when	I certify that I have rev	Scientist iewed the R ies to be us sion.	tesearch Plan and have been ed by this student, and I will
Signature Date of Approv	al	Phone	Email	

Risk Assessment Form (3)
Required for projects using hazardous chemicals, activities or devices and microorganisms exempt from pre-approval. Must be completed before experimentation.

Student's Name(s)	
Title of Project	
To be completed by the Student Researcher(s) in collabo	oration with Designated Supervisor/Qualified
Scientist: (All questions must be answered; additional page(s)	
 List/identify microorganisms exempt from pre-approva and all hazardous chemicals, activities, or devices that 	
2. Identify and assess the risks involved in this project.	
3. Describe the safety precautions and procedures that w	ill be used to reduce the risks.
4. Describe the disposal procedures that will be used (wh	en applicable).
5. List the source(s) of safety information.	
To be completed and signed by the Designated Superv I agree with the risk assessment and safety precautions and procedu Research Plan and will provide direct supervision.	
Designated Supervisor's Printed Name Signature	Date of Review (mm/dd/yy)
Position & Institution	Phone or email contact information
Experience/Training as relates to the student's area of research	ch

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 experimentation.)

Student's Name(s)	tle of Project
Must be completed by Student Researcher(s) in collaboration with to 1. I have submitted my Research Plan which addresses ALL area Instructions.	n my project or other documents provided to human participants. ined.
Must be completed by Institutional Review Board (IRB) after review approval to be valid. (If not approved, return paperwork to the study)	
☐ Approved with Full Committee Review (3 signatures required	
(All 5 must be answered)	al Pial
 Risk Level (check one): Qualified Scientist (QS) Required: □ Yes	al Risk □ More than Minimal Risk □ No
3. Written Minor Assent required for minor participants:	
•	oplicable (No minors in this study)
4. Written Parental Permission required for minor participal ☐ Yes ☐ No ☐ Not as	nts: oplicable (No minors in this study)
5. Written Informed Consent required for participants 18 years.	· · · · · · · · · · · · · · · · · · ·
☐ Yes ☐ No ☐ Not ap	oplicable (No participants 18 yrs or older in this study)
☐ Approved with Expedited Review (1 signature required). Study	-
are no health or safety hazards.	design/invention/etc., no personal data will be collected and there
☐ Student is the only subject of the research and no more the	nan minimal risk is involved.
IRB SIGNATURES (All 3 signatures required unless expedited review sponsor, designated supervisor, qualified scientist or related to (e.g., n	The state of the s
I attest that I have reviewed the student's project, that the checkbox and that I agree with the decisions above.	es above have been completed to indicate the IRB determination
Medical or Mental Health Professional (a psychologist, medical doctor, licer assistant, or registered nurse)	ised social worker, licensed clinical professional counselor, physician's
Printed Name	Degree/Professional License
Signature	Date of Approval (Must be prior to experimentation.)
Educator	
Printed Name	Degree
Signature	Date of Approval (Must be prior to experimentation.)
School Administrator	
Printed Name	Degree
Signature	Date of Approval (Must be prior to experimentation.)

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, Designated 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.
- 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(s): ______ 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: Potential Risks of Study: Benefits: How confidentiality will be maintained: If you have any questions about this study, feel free to contact: Phone/email: _____ Adult Sponsor/QS/DS: **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 Participant: 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 school/home/field research site. (SRC approval required before experimentation.)

Student's Name(s)	
Title of Project	
To be completed by Student Researcher:	
1. Common name (or Genus, species) and number of animal	s used.
 Describe completely the housing and husbandry to be pr cage, environment, bedding, type of food, frequency of fo 	0 /1 1
3. What will happen to the animals after experimentation?	
4. Attach a copy of wildlife licenses or approval forms, as ap	plicable
 The Intel ISEF Vertebrate Animal Rules require that any documented by a letter from the qualified scientist, desig letter with this form when submitting your paperwork to 	nated supervisor or a veterinarian. If applicable, attach this
To be completed by Local or Affiliate Fair Scientific Review Comr Level of Supervision Required for agricultural, behavioral (
Designated Supervisor REQUIRED. Please have applicable person	n sign below.
☐ Veterinarian and Designated Supervisor REQUIRED. Please have a	pplicable persons sign below.
Veterinarian, Designated Supervisor and Qualified Scientist REQL Scientist complete Form (2).	JIRED. Please have applicable persons sign below and have the Qualified
The SRC has carefully reviewed this study and finds it is an appropriate stu Local or Affiliate Fair SRC Pre-Approval Signature:	udy that may be conducted in a non-regulated research site.
SRC Chair Printed Name Signature	Date of Approval (must be prior to experimentation) (mm/dd/yy)
To be completed by Veterinarian:	To be completed by Designated Supervisor or
☐ 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.	Qualified Scientist when applicable: 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 provide veterinary medical and nursing care in case of illness or emergency.	☐ I certify that I will directly supervise the experiment.
Printed Name Email/Phone	Printed Name Email/Phone
Signature Date of Approval	Signature Date of Approval

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.)

St	tudent's Name(s)
Ti	itle of Project
Ti	itle and Protocol Number of IACUC Approved Project
_ Т(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, designated supervisor or a veterinarian documenting the situation and the results of the investigation.
4.	 Does the student's project also involve the use of tissues? □ No □ Yes (Forms 6A and 6B also required)
5.	. What laboratory training, including dates, was provided to the student?
	. Attach a copy of the Regulated Research Institution IACUC Approval. A letter from the Qualified Scientist or Principal Investigator is not sufficient. Qualified Scientist/Principal Investigator
	Qualified Scientist/Principal investigator
ŀ	Printed Name
-	Signature Date

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 Name(s)	
Title of Project	
To be completed by Student Researcher(s) in collaborati (All questions are applicable and must be answered; additional page	
Identify potentially hazardous biological agents to be used in risk group of each microorganism.	in this experiment. Include the source, quantity and the biosafety level
2. Describe the site of experimentation including the level of b	iological containment.
3. Describe the procedures that will be used to minimize risk. (personal protective equip., hood type, etc.)
4. What final biosafety level do you recommend for this projec	t given the risk assessment you conducted?
5. Describe the method of disposal of all cultured materials and	d other potentially hazardous biological agents.
 To be completed by Qualified Scientist or Designat What training will the student receive for this project? Do you concur with the biosafety information and recomme ☐ Yes ☐ No If no, please explain. Experience/training of Designated Supervisor as it relates to 	endation provided by the student researcher above?
QS/DS Printed Name Signature	Date of Signature (mm/dd/yy)
approves this study as a BSL-1 study, which must be conduc	nd the risk level assessment above prior to experimentation and
approves this study as a BSL-2 study, which must be conduc	nd the risk level assessment above prior to experimentation and cted at a BSL-2 or above laboratory. pproval (prior to experimentation)
(e.g. IACUC, IBC) before experimentation at a BSL-1 or BSL-2 institutional forms are attached.	s reviewed and approved by the appropriate institutional board laboratory and complies with the Intel ISEF rules. The required
☐ The Research Institution where this study was conducted do	
	Date of SRC approval
SRC Chair's Printed Name	Signature

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.

Student's Name(s)	
Title of Project	
To be completed by Student Researcher(s):	
 1. What vertebrate animal tissue will be used in this study? Check all that apply. Fresh or frozen tissue sample Fresh organ or other body part Blood Body fluids Primary cell/tissue cultures Human or other primate established cell lines 	
2. Where will the above tissue(s) be obtained. If using an established cell line include sour	ce and catalog number.
3. If the tissue will be obtained from a vertebrate animal study conducted at a research ins IACUC certification with the name of the research institution, the title of the study, the IA 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 suppl qualified personnel from the laboratory; and that if vertebrate animals were euthanized they we 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 and guidance set forth in Occupational Safety and Health Act, 29CFR, Subpart Z, 1910.1030 - I	vere euthanized for a purpose accordance with the standards
Printed Name Signature Date of (Must be	of Approval e 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.

Components	Current Research Project	Previous Research Project
. Title		2013–2014
		2012–2013
. Change in goal/purpose/		2013–2014
objective		2012–2013
3. Changes in methodology		2013–2014
		2012–2013
. Variables studied		2013–2014
		2012–2013
5. Additional		2013–2014
changes		2012–2013
ttached are:		
2013–2014 Abstract an	d Research Plan	2012–2013 Abstract