

ISEF Rules & Guidelines: Common Issues in Georgia

The following notes summarize selected sections of the ISEF Rules & Guidelines; in some cases here the rules have been simplified for clarity and may be incomplete. Refer to the ISEF Rules & Guidelines for the official rules.

SRC Signatures (See visuals on following page)

- ▶ **Form 1B** is required for **every student** (not just every project).
- ▶ **Form 1B** must be signed by **Regional SRC in section 3**.
- ▶ For Human Participants/PHBA/Vertebrate Animal projects, **Form 1B** must be signed by **SRC/IRB in Section 2**. If the project was done at home/school/field and received prior SRC/IRB approval (required), **SRC/IRB signs in 2a**. If project was done at RRI, **SRC signs in 2b**.
- ▶ **Form 6A** (PHBA) must be signed by **SRC in Section 4**. If the project was done at home/school/field and received prior SRC approval (required), **the approving SRC signs before experimentation**. If project was done at RRI, **SRC signs after experimentation**.

Official Abstract Form

- ▶ Max 250 words or 1,800 characters (GSEF won't do word count, but Abstracts that are clearly too long will be flagged.)
- ▶ Category should match GSEF registration information (ultimately GSEF registration will prevail).

Human Participants

- ▶ All projects involving human subjects (even if only the student researcher) **MUST** have **FULL IRB APPROVAL** prior to experimentation. The **only** exemptions are (p. 9-10):
 - Student-designed inventions, prototypes, computer applications or engineering/design project (i.e., something the student created) **in which the researcher or a single adult guardian is the ONLY person testing the invention**. Projects where anyone other than the student researcher or supervising adult is testing the invention REQUIRE PRIOR IRB APPROVAL.
 - Data/record review studies using **pre-existing, publicly available data sets**
 - Behavioral observations of unrestricted public settings in which there is **NO interaction, NO change to the environment, and NO use of personally identifiable data**. Putting out a bowl of jelly beans counts as change to the environment and requires prior IRB approval.
 - Projects with **certified de-identified data**
- ▶ The **consent forms signed by research participants** should NOT be sent to GSEF (but we DO want signed Form 4). The consent forms should be returned to student after IRB review.
- ▶ Students are prohibited from independently **diagnosing disease, administering medication, and/or performing medical procedures** on human participants. (p. 9, 'Rules' #6)

Vertebrate Animals

- ▶ All vertebrate animal studies **MUST BE APPROVED PRIOR TO EXPERIMENTATION**. The **only** exemptions are:
 - Studies involving **behavioral observations** where there is **NO interaction or manipulation** of the environment. Changing a pet's food counts as manipulation of the environment and requires pre-approval. (p. 14, 'Exempt Studies...')

Potentially Hazardous Biological Agents

- ▶ **Culturing** of PHBAs, even BSL-1 organisms is **prohibited in a home environment**. (p. 15, 'Rules for...' #3)
- ▶ All projects involving PHBAs **MUST BE APPROVED PRIOR TO EXPERIMENTATION**. The **only** exemptions are (p. 17):
 - (Require Risk Assessment 3): Protists, archaea; Manure for composting, fuel production, or other non-culturing experiments; Commercially available color change coliform detection kits; Microbial fuel cells
 - Baker's yeast and brewer's yeast (unless rDNA)
 - *Lactobacillus*, *Bacillus thuringiensis*, nitrogen-fixing, oil-eating and algae-eating bacteria, unless it's cultured. **Culturing bacteria requires pre-approval**.
 - Water or soil microbes no concentrated in media conducive to growth
 - Mold growth on food items if experiment is terminated at signs of mold
 - Slime molds and edible mushrooms
 - *E. coli* k-12 (and other strains of *E. coli* used solely as food source for *C. elegans*) **performed AT SCHOOL** and not used in rDNA or antibiotic resistant organism study
 - These tissues: plant tissue (unless hazardous), established cell lines and tissue culture collections, fresh/frozen meat/meat by-products obtained from stores/restaurants/ packing houses, eggs, pasteurized milk, hair, hooves, nails, features, sterilized teeth, fossilized tissue/ archeological specimens, prepared fixed tissue
- ▶ Studies involving **unknown organisms MUST BE APPROVED PRIOR TO EXPERIMENTATION**. This includes collection and culturing of microorganisms from the soil, **household surfaces**, skin, etc. (p. 16, section A)

Hazardous Chemicals, Activities, or Devices

- ▶ For projects that involve activities that may be risky and/ or illegal for minors, the Research Plan should **very clearly** address whether an adult will perform the activities, what safety precautions will be taken, and how the activities will remain in compliance with all laws and regulations.

Bottom of Approval Form [1B]:

2. To be completed by the local or affiliated Fair SRC
(Required for projects requiring prior SRC/IRB APPROVAL. Sign 2a or 2b as appropriate.)

<p>a. Required for projects that need prior SRC/IRB approval BEFORE experimentation (humans, vertebrates or potentially hazardous biological agents).</p> <p>This SRC/IRB has carefully studied this project's Research Plan/Project Summary and all the required forms are included. My signature indicates approval of the Research Plan/Project Summary before the student begins experimentation.</p> <p>_____ SRC/IRB Chair's Printed Name</p> <p>_____ Signature</p> <p>_____ Date of Approval (mm/dd/yy) (Must be prior to experimentation.)</p>	<p style="text-align: center;">OR</p> <p>b. Required for research conducted at all Regulated Research Institutions with no prior fair SRC/IRB approval.</p> <p>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 any required institutional approvals (e.g. IACUC, IRB).</p> <p>_____ SRC Chair's Printed Name</p> <p>_____ Signature</p> <p>_____ Date of Signature (mm/dd/yy) (May be after experimentation)</p>
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3. Final ISEF Affiliated Fair SRC Approval (Required for ALL Projects)

SRC Approval After Experimentation and Before Competition at Regional, State, or National Fair
I certify that this project adheres to the approved **Research Plan/Project Summary** and complies with all ISEF Rules.

_____ Regional SRC Chair's Printed Name	_____ Signature	_____ Date of Approval (mm/dd/yy)
_____ State/National SRC Chair's Printed Name (where applicable)	_____ Signature	_____ Date of Approval (mm/dd/yy)

Page 34 International Rules: Guidelines for Science and Engineering Fairs 2020-2021, societyforscience.org/ISEF2021

Local/Regional SRC/IRB signs here BEFORE EXPERIMENTATION if project requires prior approval (human participants, PHBA, or vertebrate animals)

Local/Regional SRC signs here AFTER EXPERIMENTATION if project required prior approval (human participants, PHBA, or vertebrate animals) but was conducted at RRI and received proper review and approval by RRI.

Regional SRC signs here AFTER EXPERIMENTATION and BEFORE SENDING YOUR PROJECTS TO GSEF

Bottom of Potentially Hazardous Biological Agents Risk Assessment Form [6A]:

Documentation and acknowledgment of the accuracy of the responses above.

CERTIFICATION - To be SIGNED by the QUALIFIED SCIENTIST or DESIGNATED SUPERVISOR

The QS/DS has seen this project's research plan and supporting documentation and acknowledges the accuracy of the information provided above. This study has been approved as a (check one) BSL-1/ BSL-2 study, and will be conducted in an appropriate laboratory.

QS/DS Printed Name

Signature

Date of review (mm/dd/yy)

SECTION 4: CERTIFICATION - To be completed by the LOCAL or AFFILIATED FAIR SRC

The SRC has seen this project's research plan and supporting documentation and acknowledges the accuracy of the information provided above.

SRC Printed Name

Signature

Date of review (mm/dd/yy)

International Rules: Guidelines for Science and Engineering Fairs 2020-2021, societyforscience.org/ISEF2021 Page 43

Local/Regional SRC signs here. If PHBA project was NOT conducted at RRI (and therefore requires prior approval), SRC signs BEFORE EXPERIMENTATION. If project was done at RRI, SRC signs after experimentation.