

International Rules for Pre-Collegiate Research:
Guideline for Science and Engineering Fairs

Additional Changes for 2025-2026

Potentially Hazardous Biological Agents (PHBA) Rules (page 13-15)

Under Prohibited Studies, language was added to clarify the prion prohibition.

5. All studies involving the use of prions or purified prion-like proteins are prohibited. This includes studies working with amyloid-b (Ab), tau, a-synuclein, transactive response DNA-binding protein of 43 kDa, and amyloid fibrils.

Under Rules, #9 was added to clarify the prion rule.

9. Studies involving animals or animal tissues that have been bred to express prion-like proteins (such as *C. elegans* and *Drosophila*) are permissible if conducted in a BSL-2 laboratory setting at an RRI.

Tissues and Bodily Fluids Rules (page 16-17)

Page 16, under Rules

4. The culturing of samples from fresh/frozen tissues or body fluids or meat and meat by-products obtained from food stores, restaurants, or packing houses must be considered biosafety Level 1 studies and must be conducted in a BSL-1 laboratory or higher.

6. Human breast milk of unknown origin, unless certified free of HIV and Hepatitis C, and domestic unpasteurized animal milk are considered BSL-2. All other breast milk is considered BSL-1.

Hazardous Chemicals, Activities, or Devices Rules (page 18-19)

Under Rules, the following heading and text were added.

CHEMICALS

1. Projects using chemicals with a Globally Harmonized System (GHS)* safety rating of 1, in any of the classifications, must be conducted at an RRI.
2. Projects using chemicals for their intended purpose and with GHS safety ratings between 2 – 5 in any of the classifications, may be conducted in a home, school, or RRI setting.
3. All projects using chemicals NOT for their intended purpose and with GHS safety ratings between 2 – 5 in any of the classifications, must be conducted in a school or RRI laboratory setting. A chemical is NOT used for its intended purposes when it is mixed with other chemicals, changes temperature, larger volumes are used, etc.
4. All projects using chemicals in a school lab or home setting must be conducted under the following conditions:
 - a. Follow standard lab practices for chemical handling, safety, ventilation, and specific disposal procedures used as outlined in the Safety Data Sheets (SDS).
 - b. Discard or repurpose any cookware, utensils, and/or equipment used during the experimentation; they cannot be reused for regular household use.
 - c. Be conducted with a Direct Supervisor with proper training and knowledge of the chemicals being used.

*NOTE: Chemicals may also be rated on the National Fire Protection Association (NFPA) scale. This scale runs from 0-4, with 4 being the most hazardous. A GHS rating of 1 is equivalent to an NFPA of 4.