

2016 Siemens Competition Math: Science: Technology

2016 Human and Animal Protection Policy

For the purpose of the Siemens Competition, live vertebrates include humans, mammalian embryo or fetus, bird eggs within three days (72 hours) of hatching, and all other vertebrates at hatching or birth. Zebrafish are considered vertebrates upon hatching. (Source: [NIH Animal Program Director Guidelines for Zebra fish Larvae Incubators](#). Downloaded on 3/10/2014)

Section V of the Mentor Form and the **Human and Animal Protection Policy Certification**, must be completed by the advisor, mentor, or supervising scientist. In addition, the student must complete the **Human and Animal Protection Policy Questions**.

Projects that involve in any way, including testing and questioning, the use of **live human subjects or other live vertebrates or the fluids, cells, tissues, or organs from vertebrates** are accepted only under the following conditions:

- The Research Project is conducted in a registered institution or laboratory in the United States where human or animal experimentation is authorized. The mentor(s) is required to provide the following information as part of the Mentor Form:
 - Name of the research institution.
 - Title of the study.
 - In the case of human subjects, Institutional Review Board (**IRB**) approval number and approval date. A high school IRB **is not permitted**. If an exemption was granted, this must be documented with the date of the exemption. Copies of IRB approval or granting of exemption must be included with the application.
 - In the case of other vertebrate animals, Institutional Animal Care and Use Committee (**IACUC**) approval number and approval date. Copies of IACUC approval must be included with the application.
- The vertebrate animals **CANNOT be euthanized** for the sole purpose of the student's research project. Fluids, cells, tissues, and organs may be used only if the animals were euthanized for another purpose. **This must be clearly documented by both the student AND the mentor.**
- Projects using established commercially purchased human or animal cell lines **ONLY** do not require IACUC or IRB approval. However, the student must still complete the Human and Animal Protection Policy Questions and clearly state the cell line name. The student should include the ATCC catalogue number for the established cell lines, or if a catalogue number is not available, the student should give the original reference for the establishment of the cell line.

Research projects conducted outside of the United States must follow the same guidelines listed above when using **live human subjects or other live vertebrates or the fluids, cells, tissues, or organs from vertebrates** in accordance with the following:

- The research must be done in an institution that is affiliated with a U.S. registered institution or laboratory. The mentor must provide an IRB or IACUC approval number, and copies of IACUC approval must be included with the application,

or

- The country where the research is done must have, at a minimum, guidelines equivalent to the United States. The mentor must provide evidence of this. In place of an IRB or IACUC approval number, the mentor must provide a copy of the official certification used in that country and specifically for that research project. If the country or affiliate institution has a federal-wide assurance number, please provide. The documentation must be in English.