

Call for Participation: 7th Annual DNA Day Essay Contest

Grantor: American Society of Human Genetics

Closes: 3/12/2012

Maximum: \$2,000.00

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The American Society of Human Genetics (ASHG) invites you to participate in the 7th Annual DNA Day Essay Contest! The contest is open to students in grades 9-12.

The contest aims to challenge students to examine, question, and reflect on the important concepts of genetics. Essays are expected to contain substantive, well-reasoned arguments indicative of a depth of understanding of the concepts related to the essay questions.

Essays are read and evaluated by several independent judges through three rounds of scoring.

1st Place Winner: \$1,000 + teacher receives a \$1,000 grant for laboratory genetics equipment.

2nd Place Winner: \$600 + teacher receives a \$600 grant for laboratory genetics equipment.

3rd Place Winner: \$400 + teacher receives a \$400 grant for laboratory genetics equipment.

Honorable Mention: 10 prizes of \$100 each.

This year there is one question, which deals with gene regulation. Remember to support your argument with citations from scientific journal articles, books, newspapers, etc. Take advantage of research published by experts, which is often more reliable than Web sources, blogs, or other references from people who lack specialized knowledge.

Question

Genes exert their influence on organisms by being turned on and off in precise ways and at precise times. Disease can result when problems arise during this process of “gene regulation.” The first processes of gene regulation to be discovered involved molecular ‘switches’ that regulate transcription at gene promoters. In the last 20 years, genomic research has uncovered many new types of gene regulation that earlier researchers would have never imagined. Genes can be regulated by repressors, activators, enhancers, epigenetic changes to chromatin, RNA interference, the environment, and other processes. Choose one of the gene regulation processes listed above and, using references to support your argument, explain why/how that regulatory process is critically important to ONE of the following:

early development

normal cell function

causation of disease or cell malfunction

Deadline: March 12, 2012 at 5:00 PM EST.

Questions? Please contact:

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Link: <http://www.ashg.org/education/dnadaycontest.shtml>

Categories: Basic Science, Essay Award, Genetics , Genomics, Human Genetics

Audience: High School Student, Novice Researcher, Student Researcher