



# THE WISTAR INSTITUTE

## 2010 Biology Essay Contest

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**ELIGIBILITY:** Open to all Philadelphia School District students, grades 9 through 12, enrolled in at least one science class. Students who are associated with or have family members associated with The Wistar Institute are ineligible.

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**TOPIC:** An issue in biomedical science that has been in the news during the past year.

**Examples of Topics:**

**Childhood vaccinations:** How do they work to prevent diseases? What major childhood diseases are currently targeted? What is and who would benefit from the rotavirus vaccine?

**Influenza Vaccines:** What different forms of influenza vaccines are there? How are they produced and administered? What age groups of people are they meant to protect? What decisions go into choosing a vaccine strain and how soon before a flu season are they produced?

**H1N1 Influenza:** How does it differ from the seasonal flu? Why can it be so deadly in young people? Why is vaccination important?

**Telomeres:** What is the implication of telomeres in cancer and aging? How can the study of telomeres aid in drug development?

**Stem Cells:** What are they? Where do they come from? How might they be used to treat human disease?

**Environmental Factors that Impact on Cancer:** What environmental factors directly affect lung cancer? What has happened to the incidence of skin cancer as a result of exposure to the elements of nature?

**Biomarkers:** What are they and how can they aid diagnosis of cancer.

**Issues to Address in Your Essay:**

The purpose of this essay is to **emphasize the most recent scientific findings** and to describe how these findings have impacted the medical world and/or contributed to the progress of research in this area. The essay should focus on basic scientific research and understanding **and NOT on the social and ethical implications.**

**Examples of Reference Materials:**

*The New York Times* (especially Tuesday's "Science Times" section)

*The Philadelphia Inquirer* and other Philadelphia newspapers, and the journals

*Science News, Scientific American, Discovery, Nature and Science*

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**PRIZES - ONE PRIZE PER SCHOOL WILL BE AWARDED**

**STUDENT ESSAYIST AWARDS:**

**First Prize:** \$500    **Second Prize:** \$250    **Third Prize:** \$100    **Runner-up prizes** of \$50 each

**SCHOOL PRIZES:**

\$500 Gift Certificate for laboratory/teaching supplies to the First Prize Winner's school