



**“Biomedical Breakthroughs and My Life”
Middle School Essay Contest
(6th, 7th and 8th grades)**

Table of Contents

▪ **Contest Timeline**

The enclosed timeline highlights important contest dates. Background on the judging process is provided.

▪ **Contest Awards**

A summary of the awards provided for winners in each category.

▪ **Topic Focus**

Students are asked to focus on a biomedical research topic that is relevant to them personally.

▪ **Submitting Student Work**

Included are the directions for submitting papers, either as an individual or as a class.

▪ **NWABR Resources**

This is a list of some of the resources NWABR can provide, including our Speakers' Bureau and lesson plans related to the research process.

▪ **Biomedical Research and the Web**

The web can be a powerful tool, but it is important that accurate and reliable sources are identified. Consider using this list of sites as good points of departure for your students to begin their projects.

▪ **Essay Requirements/Scoring Criteria**

NWABR has provided a detailed list of the required components, including the criteria on which essays will be judged. **Copy** these sheets and distribute them to your students so they can be sure to meet all of the requirements.

▪ **Online Registration:**

Please take a moment to register online to let us know of your intent to have students participate. This will allow us to recruit enough judges for the contest, as well as record your contact information accurately.

Contest Timeline

Date	Activity or Event for Teachers and Students
Fri., Jan. 24th, 2015	<p>Intent-to-Participate Online Registration</p> <p>It is important for teachers and individual participants to make contact with NWABR so we can estimate the number of entries and recruit the necessary number of judges!</p> <p>Also, online registration provides us with accurate teacher/participant contact information.</p>
Monday, March 2nd, 2015	<p>Submit final entries to NWABR</p> <p>(See 'Submitting Student Work' for details)</p>
Friday, May 15th, 2015 (tentative)	<p>Winners are announced</p> <p>Letters go out to students with feedback from the judges along with cash prize notification and invitations to the Awards Ceremony.</p>
Tuesday, June 2nd, 2015	<p>Awards Day hosted by IDRI (Infectious Disease Research Institute)</p> <p>The Awards Day includes the award ceremony, tours of the IDRI facilities, hands-on activities and conversation with scientists for regional winners, their parents and teachers. Winners receive an awards booklet, which is also posted online.</p>

Judging Process

- NWABR recruits judges from the biomedical research community based on the participation estimates provided by teachers in Jan. Once the entries are received, judges are sent a packet of essays to review and provide comments. The ELL category has its own judges.
- During March, the judges will score essays and return their comments and scores to NWABR in order to determine the top 10% of entries. Each student receives at minimum one comment from a judge.
- In April, the top essays will be sent out again to at least two judges for review. Judges will score every essay they receive based upon the criteria and return comments and scores to NWABR.

- Once the essay scores are returned to NWABR, the winners will be determined. The entire judging process parallels the review process which scientists undergo when submitting manuscripts for publication.

Contest Awards

Regional Winners will receive the following awards!

Winners will be announced for *EACH* of the three themes*:

***with sufficient participation/number of entries**

First Place Essay	\$100
Second Place Essay	\$75
Third Place Essay	\$50

The first place ELL essay (selected from across all three themes) will also receive a \$100 dollar prize!

Students, teachers and schools will be given special recognition by the Northwest Association for Biomedical Research, which may include local newspaper coverage. Entries become the property of NWABR and may be reproduced.

Winners will be invited to tour IDRI, a Seattle research facility. Each winner may select one parent and one teacher to accompany them on the tour held in conjunction with an awards ceremony.

Topic Focus: Biomedical Breakthroughs and My Life

Students are asked to focus on **how research has affected, or has the potential to affect, them or someone they personally know**. This could include describing the development of veterinary treatments for their pets, or the process by which pharmaceutical drugs, medical devices, or surgical procedures are developed. Entries should address the importance of biomedical research and how **animal models and/or human clinical trials** contribute to medical breakthroughs. **Students can submit their essays in one of three categories: Animal Research Saves Lives, Animal Research Helping Animals, or Advances in Biomedical Technology.**

Possible topics:

<ul style="list-style-type: none">• Prenatal medicine• Stem cell research• Surgeries• Medical Devices• Organ transplantation• Pharmaceutical Drugs	<ul style="list-style-type: none">• Treatments for particular diseases (diabetes, cystic fibrosis)• Research on physical effects of illegal drugs• Vaccinations• Animal medicine (pets)• Medications: Steroids, Prozac, Ritalin, Antibiotics, Asthma medications
---	--

Submitting Student Work

GOOGLE DRIVE – For teachers entering 10 or more students, **please submit student work through Google Drive (information will be sent to you) or on a CD**. Instructions on how to label student files will follow. **In addition, please include an Excel spread sheet with student LAST NAMES and FIRST NAMES in columns and indicate if an essay is in the ELL category**. Label *your* spreadsheet with *your* last name, first name, and school. If you have any questions, please contact us.

EMAIL – For teachers entering 9 or fewer students, for home schooled students, or for students entering independently, projects may be submitted by email to education@nwabr.org. Further instructions will follow.

MAIL – For students without access to computers, hard copies can be sent to NWABR directly (2633 Eastlake Ave E, Suite 302 Seattle, WA 98102)

NWABR Resources Available for 2014-15 Contest

www.nwabr.org– The NWABR website has links to many on-line resources on biomedical research - <http://www.nwabr.org/community/learn-about-research/process>

Winning essays from previous years - <http://nwabr.org/students/essay-contest>

NWABR Speakers Bureau – <http://www.nwabr.org/community/nwabr-speakers-bureau>
Researchers, clinicians, veterinarians and patients are available for personal interviews or classroom presentations on a wide range of topics in biomedical research.

Ethics in the Science Classroom – <http://www.nwabr.org/teachers/teacher-developed-curricula/ethics-classroom>

Lesson plans built from various case studies are available from the NWABR website. These lessons were developed by teachers that attended the 'Ethics in the Science Classroom' workshop.

For the Greater Good – <http://nwabr.org/curriculum/greater-good>

A five-lesson unit focused on a series of articles in the Seattle Post-Intelligencer describing the stories of individuals who work with animals as part of their research.

Biomedical Research and the Web

(The following web sites provide additional information on biomedical research)

www.kids4research.org

American Association for Laboratory Animal Science (AALAS)/Charles River Laboratory

This website is intended for students in grades K-12, their teachers, and parents. It contains extensive information about responsible laboratory animal care in biomedical/biological research, testing, and education. Included in the website is information about careers in the laboratory animal medicine field.

http://aalasfoundation.org/public_outreach.html

American Association for Laboratory Animal Science (AALAS)

This AALAS website has posters, videos, and presentations explaining the benefits of biomedical research and the responsible use of laboratory animals.

www.fbresearch.org

Foundation for Biomedical Research (FBR)

The Foundation for Biomedical Research is an organization that is dedicated to the improvement of the quality of human and animal health by promoting public understanding and support of the ethical use of animals in scientific and medical research. This organization provides a wide variety of educational resources to help the general public understand why animals are so important in the search for new and better ways to treat diseases that afflict both people and animals.

www.amprogress.org

Americans for Medical Progress (AMP)

AMP promotes the public understanding of and support for the humane, necessary and valuable use of animals in medical research. This website provides animal research facts, profiles about animals in research, and resource websites for students.

www.animalresearchcures.org

The American Physiological Society (APS; www.the-aps.org)

APS offer straightforward answers to common questions about animal research, including why it is necessary and how it is regulated. The website also provides links to other resources to aid in a deeper exploration of the subject.

www.whatayear.org

Massachusetts Society for Medical Research (MSMR)

What A Year! highlights a breakthrough each month and gives some information about the people behind it.

<http://clinicaltrials.gov/>

ClinicalTrials.gov is a service of the National Institutes of Health. The 'Understanding Clinical Trials' portion of the site provides an extremely comprehensive outline of all aspects of clinical trials.

<http://www.cancer.gov/clinicaltrials/learning>

National Cancer Institute

The clinical trials section of the National Cancer Institute website provides an overview of human clinical trials.

<http://www.fda.gov/fdac/special/testtubetopatient/default.htm>

Food and Drug Administration

This site describes when animal research and clinical trials are required in the overall drug development process. The regulatory role of FDA is explained.

<http://www.fda.gov/oashi/clinicaltrials/default.htm>

Food and Drug Administration

This site provides basic questions and answers, information on protection of human subjects, and overview articles about clinical trials.

www.aphis.usda.gov/animal_welfare/index.shtml

United States Department of Agriculture

This federal agency enforces the Animal Welfare Act, which requires that minimum standards of care and treatment be provided for most warm-blooded animals used for research as well as for other purposes such as exhibition at zoos, marine mammal facilities, and circuses. This agency conducts randomly scheduled, unannounced inspections to ensure that all regulated facilities comply with the law.

www.grants.nih.gov/grants/olaw/olaw.htm

Office of Laboratory Animal Welfare, National Institutes of Health

This web site contains the Public Health Service (which includes the National Institutes of Health) policy on the Humane Care and Use of Laboratory Animals. There are numerous links to other federal policies on the website.

Bibliography Style References

APA Citation Style <http://guides.lib.uh.edu/citationhelp>

MLA Citation Style <http://www.aresearchguide.com/12biblio.html>

“Biomedical Breakthroughs and My Life”

Essay Requirements and Scoring Criteria

CONTENT (30%) – My essay focuses on an appropriate topic and uses supporting examples.

- My essay addresses the topic of ‘Biomedical Breakthroughs and My Life’. This may include past, current or future examples of the impact of biomedical breakthroughs on me, my family, friends or pet.
- My essay contains one central idea.
- I have at least 3 specific examples of scientific research that support my central idea.
- I describe the role of animal research and/or human trials (either in research generally or in my topic in particular).
- My essay is organized in its thinking & based on my references.

UNDERSTANDING AND PRESENTATION (30%)

- My essay shows an understanding of the topic and presents the material in an informative and engaging manner.

VOICE (10%) – The essay sounds like me, not an encyclopedia, existing website, nor any of my references.

- This is original work created by me, in my own words.

REFLECTIVE PARAGRAPH (15%) – I understand the value of this project.

- Separate from the essay**, I am submitting an additional 1-2 reflective paragraphs that describe my thoughts on the experience of doing this project.

CITATIONS and BIBLIOGRAPHY (10%) – These accurately reflect my sources in the proper format.

- I have acknowledged ideas and quotes from my references within the essay by using numbers, for example (1) with 1 referring to the number 1 reference listed in my bibliography.
- I included an **interview**, as required. The person interviewed is relevant to my topic - a scientist, doctor or patient, or family member. (Your teacher or NWABR may be able to help find someone for you to interview). I have personally conducted the interview, not just included quotes from a published interview.
- I included at least **3 references**, in addition to the interview, in proper bibliography format.

MLA style examples

Periodical: Most, Andrea. “We Know We Belong to the Land.” PMLA 113(1998): 77-89.

Book: Bohlman, Herbert M., and Mary Jane Dundas. The Legal, Ethical and International Environment of Business. 5th ed. Cincinnati, OH: West, 2002.

Internet Citation:

Author. “Title of Article”. Title of magazine, newspaper, encyclopedia (underlined). Editor. Date of article. Group responsible for web site. Access date. <URL> (in angle brackets)

Personal interview:

Person interviewed. Relevance to essay. Type of interview: in person, telephone. Date of interview.

Example : Poussaint, Alvin F. Uncle with asthma. Telephone interview. January 21, 2012.

FORMAT and MECHANICS (5%)

- I prepared a 400-650 word paper, typed (double-spaced), on 8.5” x 11” paper.
- I used correct spelling, proper grammar, and accurate punctuation. I proofread my paper and had someone else proofread it.
- I included a title page with the following: date, name, title, teacher’s name, school name and address, region and whether or not the essay is in the ELL category (see the Title Page format).

Title Page for all entries in the Biomedical Breakthroughs and My Life Contest

Date:

Student Name:

Title of Essay:

Teacher's Name (if entering as part of a school class):

School Name (requested from all participants):

School Address:

Home Address (requested only if entering as an individual and not part of a class):

Enter this essay in the English Language Learner (for 5 years or less of English) category:

Yes No