

Breast Cancer Research Paper

Biology 101 –Fall 2013

This writing assignment is designed to provide opportunities for the student to find, evaluate, select, synthesize, organize, cite, and present information and arguments clearly and effectively for understanding scientific issues on personal, societal, and global levels.

Your aunt came across a news segment about Angelina Jolie's breast cancer scare. Reactions from the locals and celebrities were conflicting: was the double mastectomy an act of bravery or fear? Your aunt is in her late 40s, leads a healthy lifestyle, and has a yearly mammogram. It is her two daughters that concern her. If genetic testing is available for breast cancer, then why shouldn't her daughters benefit from this technology? Your aunt knows you are taking a biology class and has turned to you for some additional understanding. You've decided to research this topic and report back to her.

Write a research paper that addresses the following key points (allocate about 1-2 paragraphs for each point):

1. Describe the normal function of proto-oncogenes and tumor-suppressor genes within the cell and explain what occurs when these genes mutate. Which category of genes do BRCA1 and BRCA2 fall under, and how are mutations in these genes related to breast cancer?
2. Are most forms of breast cancers inherited? Identify and discuss other factors that increase one's risk of breast cancer.
3. Discuss the pros and cons of BRCA genetic testing. Would you recommend this test to female family members, even if there is no history of breast cancer in your family? Your opinion must be supported by your references.
4. Was Angelina's decision for a double mastectomy too extreme? If one of your family members finds out that she has an increased risk of breast cancer, what preventative and treatment options would you recommend and why? Your opinion must be supported by your references.

***NOTE: Your entire paper, even parts that ask for your opinion, must be well supported by evidence. Having a good number of quality references will help in this regard.**

Assigned article (must read and use in your paper):

Time magazine article "The Angelina Effect" by J. Kluger and A. Park

Total number of references (3):

You must use and reference the above article and at least two additional sources for this paper, making the minimum number of references for your paper 3. You may review relevant chapters in your textbook and use other sources to fill in missing information.

It is important that your response to your aunt be thoroughly researched and clearly written. You should define all your terms and be concise (1,250 words maximum). This assignment is designed to give you the experience of applying your knowledge of biology to a current controversy or topic of interest. You will use the same sort of method that you will later use as an informed citizen and consumer when making decisions that involve biology.

Other resources

Primary Sources: You will find information in the “primary literature,” which is where the research was originally published. You can find these articles by using CSUF’s on-line search engines, or by asking for the help of a CSUF librarian. Examples of the primary literature include *Science*, *Nature*, *Proceedings of the National Academy*, and *Genetics*.

Secondary Sources: You may also find relevant articles in recent newspapers, popular magazines, or popular science journals. These are referred to as “secondary” sources, since they describe research that was published elsewhere. Examples of these include *The New York Times*, *The Los Angeles Times*, *The Guardian*, *Time*, *Scientific American*, *Discover*, *New Scientist*, and *Science News*.

Websites: If you choose to use a website, be aware that most websites are not peer-reviewed, and often present inaccurate information. Examples of excellent websites include those of the National Academy of Science, the National Institute of Health, the Centers for Disease Control, and WebMD. If you are unsure of the appropriateness of a website, check with your instructor. Alternatively, the CSUF library has an excellent guide to evaluating websites at <http://library.fullerton.edu/> under Guides for Undergraduates.

The structure of your paper

- Be sure to cover all four points mentioned above and define all technical terms that you use.
- Your paper must be between 750 to 1250 words (not including references). Your paper should be double-spaced with one-inch margins, using 12 point Times New Roman font. No cover page is required.
- You are **not** allowed to include any quotes in your paper. All of your writing must be original. You must paraphrase ideas from the literature, even if you provide an in-text citation.
- Information and ideas that are paraphrased must be accompanied by proper in-text citations in the body of your paper and a corresponding reference in APA format.
- You need to review your paper for format, spelling, grammar and usage errors before you submit it, or you will lose points.
- Please also review the grading rubric before submitting your paper to make sure that you have done everything you can to receive a good grade.

Guidelines for citing references

In-Text Citations

In-text citations should be in APA format. You can find a summary of APA guidelines for your reference page at: <http://www.lsc.edu/library/Documents/apacite.pdf>

Reference Page

Your bibliography should be formatted using APA (American Psychological Association) guidelines. You can find a summary of APA guidelines for your reference page at:

<http://www.lsc.edu/library/Documents/apacite.pdf>

Submitting your response

Late papers will not be accepted. You must submit an electronic copy of your paper to Turnitin.com the day it is due.

1. Submitting your response to Turnitin.com

An electronic copy of the paper with references is due to Turnitin.com by 9pm on Monday, October 14, 2013. Turnitin.com will not accept papers after the start time of your class. If you do not submit your paper to Turnitin.com by October 14, 2013 you will receive a zero for the assignment. Your response must be submitted to Turnitin.com, which is a plagiarism detection program, in order for your paper to be graded. All submissions will be evaluated, but if you submit a paper with a similarity index greater than 10% you will probably be reported to the Vice President for Student Affairs and receive a zero for the assignment. Refer to the attached instructions on how to submit your paper to Turnitin.com.

Preparing your paper for submission

Turnitin can accept files in the following formats: MS Word, WordPerfect, PostScript, PDF, HTML, RTF, and plain text. Be sure that you save your paper in one of these formats.

The beginning of your paper should include the following information:

Your name

The date the assignment is due

Biology 101, and your section number

Your instructor's name

Your paper title

NOTE: Your electronic submission should include all in-text citations as well as your reference page.