

St. Catharine Academy
Biology Regents
Mr. Spence/Mrs. Tulipano

Researching Genetics
Third Marking Period Requirement

The discovery of DNA and the genetic code is a relatively new science that has led to even greater groundbreaking discoveries about health and disease at the turn of the century. We can now study genetic disorders, understand how they are inherited, predict their inheritance, bypass their inheritance, and offer treatments to some affected individuals. Doctors are now learning to use the information in a person's genome. It is possible to determine the complete DNA sequence of your genome and identify genes that may cause diseases in your own body. However, many genetic diseases do not currently have any treatments. There are both benefits and drawbacks to knowing if you will develop a genetic disorder in your lifetime, or if there is a possibility that you could pass a genetic disorder onto your children.

For your third Marking Period Project, you are going to research the following:

- ❖ A contributing scientist to the modern field of genetics.
 - Discuss this person's history and the work he/she has contributed to the field of genetics. What discoveries did this individual make? What is this person given credit for, and what are his/her roles in the field of genetics today?
- ❖ A genetic disorder that interests you.
 - Discuss whether this disorder is a chromosomal disorder or one that affects a specific gene. Discuss the problems that are associated with this disorder, such as developmental delays or body system malfunctions.
- ❖ Your personal response to the possibility of having your own genome mapped
 - Discuss whether or not you would want to know your genome, and the possibility of developing a genetic disorder in your lifetime, or the possibility of passing it onto your children. Would you view it as an opportunity for you to be proactive in living a healthy lifestyle, or would you live your life in fear of the gene mutating?

Write a 2-3 page TYPED report about this topic, being sure to discuss ALL of the three research points discussed above.

Your report MUST be typed in TIMES NEW ROMAN, FONT 12, DOUBLE-SPACED. YOUR COVER PAGE MUST INCLUDE THE FOLLOWING INFORMATION, CENTERED ON THE PAGE.

- Your name
- The title: RESEARCHING GENETIC DISORDERS, CONTRIBUTING SCIENTISTS, AND GENOME SEQUENCING
- St. Catharine Academy
- Teacher's name (Either Mr. Spence or Mrs. Tulipano!)
- Biology Regents Period _____

You must also include a page of pictures of the scientist, and the genetic disorder you researched. Lastly, you must include a WORKS CITED page, where you cite the SCIENTIFIC sources you used. (Wikipedia is NOT an acceptable site, whereas GOOGLE SCHOLAR is).

DUE DATE: TUESDAY, APRIL 14, 2015 – NO EXCEPTIONS!!!