

Genetics Project

Biology 118

Assignment: This assignment is to be completed INDEPENDENTLY OF OTHERS and is to be the work of the student that is enrolled in the class and no other's work. You will create a brochure about a genetic disease/disorder that will be 2-3 pages (a page is defined as one side of an 8.5 x 11" paper) in length and discusses the specific aspects described below. Less than 2 pages or more than 3 pages will result in a loss of points.

You are required to choose from one of the following disease/disorders:

Cystic Fibrosis

Sickle Cell Anemia

Haemophilia (you may choose A or B)

Familial Hypercholesterolemia

Huntington's disease

No, you may not choose a disease/disorder that is not on this list. Don't ask.

Include the following information about your chosen disease/disorder. **Insert your information for each section in the brochure template provided to you. You may not change the order of the topics on this template. Insert your text only. Changing the template will result in loss of points. You are REQUIRED to use this template. You will lose points if you don't.**

You are expected to write each section in paragraph form, using complete sentences. Bulleted or listed information will result in a loss of points. Paraphrase information you have gathered. In other words, write the brochure in your own words. Do not copy-paste text from the sources you have read. Do not quote information from sources you have read.

General Description of the Disease/Disorder

Give an introduction to the disease/disorder. Describe the discovery of the disease. Is there any important historical significance to this disease (did someone famous in history have it)? Did the disease have a different name early in its discovery? Give a general description of how the body is affected by the disease.

Genetic Basis and Mode of Inheritance

Describe the genetics of the disease. On which chromosome is the affected gene located? How is the disease/disorder inherited from the parents? Is the gene recessive, dominant, pleiotropic, incompletely dominant, sex-linked or polygenic?

Epidemiology/Etiology

What are the causes and origins of this disease? Is there any important historical significance to this disease? Where does the disease usually start? Can you find some national and maybe global statistics? Effect of age? Ethnicity? Gender?

Signs, Symptoms and Complications

Describe the signs and symptoms that the individual will display. What changes in health does the disease/disorder cause? Are there further problems in health that the complications lead to?

Diagnostic Tests

What types of tests are used to diagnose the disease in an affected individual? Describe how the test(s) work. Are there tests that can be done to see if a person can pass on the disease to their offspring? Describe how the test(s) work.

Available Treatments and Prognosis

If there is more than one type of treatment, then choose a few of the most common treatments (treatment(s) of choice), or treatments that are used most often. How do the treatments help the individual? Will the person survive? What is the life expectancy? What will their quality of life be like?

References

You must list all of the sources you used to complete your project. Your sources must be **VALID, SCIENTIFIC SOURCES**. You absolutely, positively **MAY NOT USE WIKIPEDIA**. You may use internet sources, but they must be valid sources of science. If you are unsure of what sources are valid you may e-mail the URL to your instructor for approval. Here are some recommended sites to use:

<http://www.omim.org/>

Online Mendelian Inheritance in Man is the site your book references for the diseases and disorders that are discussed as examples. It is a catalog of information for various genetically inherited diseases known to science through research. Just type in the name of the disease and go!

<http://www.cdc.gov/>

The Centers for Disease Control and Prevention is an excellent source of information not just for genetic diseases but for all diseases. Type in key words or phrases for your disease/disorder and go!

<http://www.mayoclinic.com/>

The Mayo Clinic is a foundation for medical education and research. Type in key words or phrases for your disease/disorder and go!

<http://www.who.int/en/>

“WHO is the directing and coordinating authority for health within the United Nations system. It is responsible for providing leadership on global health matters, shaping the health research agenda, setting norms and standards, articulating evidence-based policy options, providing technical support to countries and monitoring and assessing health trends.” Type in key words or phrases for your disease/disorder and go!

You must use the correct reference format for each of your sources. Books, magazine articles, etc. must be listed as follows:

INTERNET WEBSITE:

Simply list the URL

BOOK EXAMPLE:

Voet D, Voet JG. 1990. Biochemistry. New York: J Wiley. 1223 p.
(author(s). Year of publication. Title. City of publication. Publisher. Pages used)

MAGAZINE EXAMPLE:

Henry, W. A., III. (1990, April 9). Making the grade in today's schools. Time, 135, 28-31.
(author(s). Year of publication, month and day. Title. Publication. Pages used)

NEWSPAPER EXAMPLE:

Schultz, S. (2005, December 28). Calls made to strengthen state energy policies. The Country Today, pp. 1A, 2A.
(author(s). Year of publication, month and day. Title. Publication, Pages used)

JOURNAL ARTICLE EXAMPLE:

Johnson DL, Lynch WE Jr. 1992. Panfish use of and angler success at evergreen tree, brush, and stake-bed structures. N Am J Fish Manage 12(1):222-9
(Author(s). Year of publication. Title. Name of Journal volume(issue if any): pages of article)

Personalize!

You may personalize the brochure. The template will allow you to change color, font and size of the text. You can also add background color, borders and photos (even by copy-and-paste from the web). If you do not know how to do these actions your instructor is happy to help you after class or in office hours!

Your assignment is due May 21, 2015 at the beginning of the lecture period. Five points will be deducted for each calendar day the assignment is turned in late. Being late to class the day the assignment is due counts as a late day and five points will be deducted! You are required to print your assignment for submission. E-mail submissions will not be accepted. If you do not have a printer the VVC Library or VVC Technology Center can help you. The assignment is NOT required to be printed in color.