

Human Genetic Disorder Presentation Project

For this project, you will work in a group to research a human genetic disorder and then develop a presentation for the class.

I. Research.

It is very important that you research a disorder with KNOWN inheritance. Review the rubric first. Can you find all the answers? If not, pick another disorder. There are some very interesting disorders, but they are so rare that we don't have the data to determine how the disorder is passed on genetically. There are other disorders that are usually environmental, NOT genetic (like elephantiasis in which a parasite can change DNA and then the mutation may be passed on). Avoid those disorders.

Here is a hint: If we know where the gene for the disorder is located (on which chromosome), then the disorder is a good candidate

START HERE

<http://www.kumc.edu/gec/support/> (careful not all are genetic!)

<http://www.genome.gov/10001204>

Chromosome Maps: <http://www.ncbi.nlm.nih.gov/books/bv.fcgi?rid=gnd.chapter.272&ref=sidebar>

http://www.ornl.gov/sci/techresources/Human_Genome/posters/chromosome/diseaseindex.shtml

II. Presentation

Your research will be demonstrated in your group's electronic presentation via Google Docs <http://docs.google.com/>. From Google Docs, choose Presentation from the New menu. You will be creating 8 to 10 slides in a format very similar to PowerPoint.

When you start your presentation, have one group member go to the Share button in the upper right corner. Add the email addresses of each group member and me as editors.

My email is ckempf@pcs.k12.mi.us

You must also review both the Grading and Collaboration Rubrics together and agree on how you will divide the work among you. You may wish to choose a group leader. I will allow your group to decide how to divide responsibilities, but everyone must demonstrate effort towards the project. One way that I can check this is by looking at the revision history.

You will have 3 days to work on this project. **It is due THURSDAY, MAY 16TH.** Use Google Docs to collaborate outside of class, if need be!

****You must add scientifically valid references (cite sources) on a slide at the end of your presentation. The following websites show you how to properly cite Internet sources in MLA format:**

[http://citationmachine.net/index2.php?](http://citationmachine.net/index2.php?reqstyleid=1&mode=form&reqsrcid=MLAWebDocument&more=yes&nameCnt=1)

[reqstyleid=1&mode=form&reqsrcid=MLAWebDocument&more=yes&nameCnt=1](http://citationmachine.net/index2.php?reqstyleid=1&mode=form&reqsrcid=MLAWebDocument&more=yes&nameCnt=1)

On the due date, you will **submit a printed copy of your presentations with 4 slides to a page.** Edits cannot be made after that date (again, I can check revision history and compare to printed copy). I will deduct 10 points (70 possible) each day it is late. Presentations will begin that day, and continue on Thurs.

Presentation Grading Rubric

For full credit, your presentation must include the following items. Add your names and disorder below, and then give one copy of this rubric to me at the time of your presentation.

Group Names: _____ Genetic Disorder: _____

I. General Information		___/7
Name of disorder (correct pronunciation)	/1	
Alternative names	/1	
How disorder got it's name	/1	
Who/When/Where/How discovered	/3	
Additional background information	/1	
II. Symptoms		___/5
Explanation of 5 different symptoms		
III. Cause of the Disorder		___/9
Mode of inheritance (Autosomal or sex-linked? Recessive or dominant? Show chromosome with gene mapped.)	/3	
Explanation of inheritance (be specific, use a Punnett Square, if possible)	/3	
Statistics (frequency of disorder among births, certain genders, etc.)	/3	
IV. Diagnosis/Prognosis		___/8
Diagnosis of disorder (how do doctors determine a person has the disorder)	/2	
Prognosis (life expectancy of person with disorder, limitations, etc.)	/2	
How the disorder impacts the person who has it	/2	
How the disorder impacts family members	/1	
How the disorder impacts society/community members	/1	
V. Treatment		___/5
Current treatment of disorder and current treatment of symptoms	/3	
Treatments used in the past	/1	
Treatments possibly available in the future	/1	
VI. Genetic Testing		___/4
Genetic testing available (what is it, how is it done, what are the results)	/3	
Who is/can be tested	/1	
VII. Presentation Technique		___/12
Evidence of preparation (organized, smooth flow, no reading slides, etc.)	/5	
Good eye contact and volume	/3	
Appropriate time length (5 to 7 minutes)	/4	
VIII. Slides		___/20
Sources cited on a slide at the end in proper MLA format	/6	
Enhancing images/pictures (one on each slide)	/4	
Easy to follow (avoid paragraph form, use bullets, simplify)	/3	
Organized/effective layout (contrasting colors, approp. font and size, etc.)	/4	
Title slide and 6 – 8 supporting slides and 1 Works Cited slide with scientifically valid websites	/3	
IX. Deductions		___/-70
Audience behavior: All are expected to be respectful during others presentations. I will begin deducting points if I see any disruptive or disrespectful behavior		
Final Grade		___/70

Collaboration Rubric: Grading your team members (Total = 100)

Use the rubric below to grade each team member, and fill-in the chart with the points you assign – remember to grade yourself too! For each group member, I will average the scores and add those points to the presentation grade.

Member's Name:				
Preparation				
Time Management				
Contribution				
Cooperation				
Attendance				

	Excellent 19-20	Above average 15-18	Satisfactory 11-14	Unsatisfactory 0-10
Preparation (20%)	Student has developed a timeline for completion of his/her part of the project. Student comes to class each day prepared to complete his/her responsibilities.	Student comes to class prepared most of the time. Student has a timeline but it is missing some key information.	Student comes to class prepared some of the time. Student has a timeline, but rarely follows it.	Student rarely comes to class prepared. Student does not have a timeline.
Time Management (20%)	Student comes to class and gets to work on the project with little prompting.	Student spends very little time off work. Student uses timeline to maximize work output.	Student needs to be reminded frequently to stay on task. Student does not use timeline in an effective manner.	Student spends more time off task than on-task. Student needs to be constantly reminded to get to work.
Contributions and work ethic (20%)	Student contributes to the best of his/her ability to the success of the group. Helps others and encourages group members to be successful. Fully completes expectations of group with high quality.	Student contributes to the best of his/her abilities most of the time. Helps others in the group, but not always a positive contributor to the group.	Student contributes infrequently to the positive work of group. Student is more of a hindrance than a help to the group.	Student makes little or no effort to contribute positively to the group. May be a source of friction within the group.
Cooperation (20%)	Freely shares ideas and opinions, but is always respectful of group consensus. Looks for ways to resolve group conflict. Almost always listens to and supports the efforts of others in the group.	Student shares ideas and is usually respectful. Usually listens to and supports the efforts of others in the group. Does not cause "waves" in the group.	Does not argue, but does not listen either. Often listens to and supports the efforts of others in the group, but sometimes is not a good team member.	Ideas and opinions are rarely shared and/or are against group consensus. May argue with teammates. Rarely listens to and supports the efforts of others in the group. Often is not a good team member.
Attendance (20%)	Student attends class on days group is working on project. Student is on time to class.	Student misses one class, or is tardy more than once during project	Student misses 2 or more classes, or is tardy more than 2 times.	Student's sporadic attendance makes completion of group project difficult

If there is any other information about a group member that I should know, please describe here: