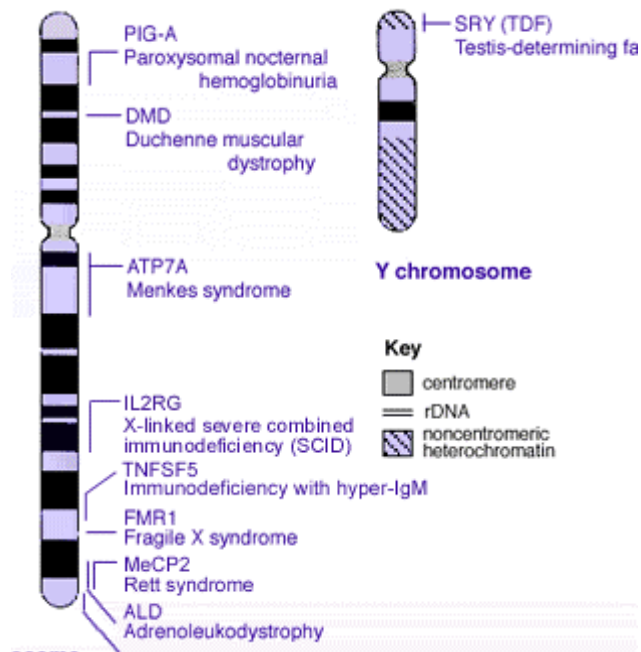


# Genetic Diseases Related to the Sex Chromosomes

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## TIPS

- Use the links below to start your research for your PowerPoint.
- Save pictures to your hard disk so that you can insert them into your presentation
- Check out the links - For instance you can get the whole sequence of the gene from HGMD (Human Gene Mutation DataBase).
- Download the picture of the X chromosome with your genetic disease from Gene Cards
- Get an overview of all of the mutations from the mutation data base
- Use Google to browse for related sites
- Use Google images to find more pictures to enhance your presentation

| Links                                    | References   |
|--|--|
| <a href="#">OMIM</a>                     | Complete summary of diseases- links to other sites     |
| <a href="#">Gene Cards</a>               | Outline of disorder- links to other sites              |
| <a href="#">Human Mutation Data Base</a> | Mutations in gene                                      |
| <a href="#">NCBI</a>                     | Information on genes and proteins. Go to Gene View for |

|   |   |
|---|---|
|   | assistance on specific types of disorders   |
| <a href="#">Rare Genetic Diseases in Children</a> | Information and links to genetics diseases  |
| <a href="#">Protein Data Bank</a>                 | Information on proteins and enzymes causing genetic conditions                          |
| <a href="#">Integrated X chromosome</a>           | Genetic summary of X chromosome genes- Various Maps (java may be needed for some views) |
| <a href="#">X Chromosome Mapping</a>              | Maps for Chromosome X   |

### Power Point assignment

Objective: To create a PowerPoint Presentation containing the following elements

Method: Two class periods will be provided for this project. Additional time should be planned to include library research or Internet research. This project will be due on January 21. If there are any changes to this date it will be the result of the exam schedule. If the exam schedule is extended this due date may be changed.

Work should be saved on a CD, zip disk, or school H drive under your name so that it may be accessed for use in class presentations.

1. Title Slide containing the name of the Genetic Disease (its abbreviation, where applicable, the name of the creator( 1 slide)
2. Introductory slides- Explanation of the nature of the Genetic Disorder, its clinical aspects (3-5 slides).
3. The Gene Location (chromosomal location and address) Most are on the X chromosome. The picture may be copied from either the NCBI or Gene Cards (1 slide)
4. The gene sequence (copied and inserted on a slide). (1 slide)
5. Mutations and variations in the gene( from Human Mutation DataBase) 1-2 slides
6. The activity of the protein or enzyme affected in this disorder. It is fine to show the specific chemical reaction. A picture of the protein or enzyme can be found in some cases. (2 slides)
7. Current research on this disease (3 slides)
8. Treatment, gene therapy, or projected ideas to ameliorate this genetic condition. (2-3 slides)
9. Creative slide with pictures or additional information (1-3 slides)

Minimal Number of slides required = 15

Bibliography (either on PowerPoint) or on separate sheet of paper with web sites and other references for this project.

