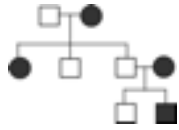


THIS WEEK IN BI 102

PORTFOLIO #3 IS DUE MONDAY MAR. 2 BY 5:00 P.M., I3I WNGR

TUESDAY LECTURE



Human Inheritance
Apply what you know about human genetics to reading human pedigrees.

THURSDAY LECTURE



Genetic Technologies and Medicine
Current and emerging techniques.

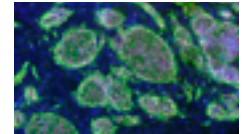
NO RECITATION
(50-minute activity)
Release time for Monday exam #1, lab meets as usual.

LABORATORY



Human Genetic Disorders
The genetics basis of various human disorders.

ON-LINE READINGS



Stem Cells, RNAi
Remarkable animal behaviors; Origins of vertebrates.



Work Ahead for Thursday's Lecture

Read "Stem Cells."

Note: We have a new objective #152 for this reading: *Describe the different types of stem cells and how they can be used in medicine.*

What are the similarities and differences between embryonic and adult stem cells?

What are induced pluripotent stem cells?

List potential uses of stem cells.



BI 102's Final Exam is Wed. Mar. 18 at 8:00 to 9:50 p.m.



Work Ahead On-Line Readings

Read "RNAi" and answer the following questions.

What is RNAi?

How did RNAi relate to a purple petunia?

Provide examples of how RNAi may be used to change the course of human diseases.

Work Ahead for Laboratory

In the activity manual, read over *Human Genetic Disorders* to answer these questions.

List three examples of human disorders caused by chromosomal mutation (p. 157).

Glycolysis is the process of breaking down _____ into pyruvic acid, releasing energy cells need to survive. (question #4, p. 158)

Looking at the pedigree for cystic fibrosis (CF), what is the most likely genetic basis of this disorder? _____ (question #3a, p. 158)

In the pedigree for Huntington's Disease (HD), what is the most likely genetic basis of the disorder? _____ (question #4, p. 162)

The enzyme lactase breaks down the sugar _____ found in milk products. (Station H, p. 165).



Humans cannot synthesize Vitamin C, possibly due to a mutated GULO pseudogene.
(p. 165)

**Work Ahead for the Final Exam**

Approximately 10 of the 60 questions on the final exam are cumulative. This material typically includes concepts that were covered repeatedly in the course. Try to think of two or three concepts we've covered repeatedly this term, then look at the beginning of last year's final exam (Appendix D) to see if there were similar questions asked.

To make sure the week 7 material does not fade in the month's time before the final exam, write one or two possible exam questions for each of the week seven objectives (# 107-123).

Finish the term strong. If you would like any assistance in studying for the final exam, come by [office hours](#) this week.

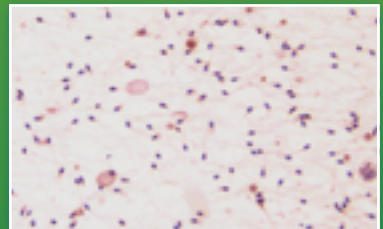
Human Genetics



Humans have _____ pairs of chromosomes.



How many chromosomes are found in a human egg? In human sperm?



Where does meiosis occur in the human body?



2N to 2N is _____, not meiosis which is 2N to 1N.

Answers can be found in your week 3 lab, p. 63