

The *C. elegans* Web Page

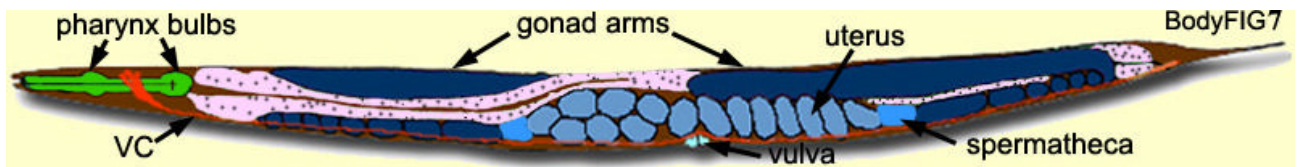
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Picture from the Worm Atlas, External View

Sex Determination Video

Lecture Two. Dr. Barbara Meyer.



Picture from the Worm Atlas, Internal structure of hermaphrodite

Study Guide Questions

1. Why are models used for the study of human genes and their expression?

2. What characteristics does *C. elegans* have that make it an excellent genetic model?

3. What is the sex-determining factor in *C. elegans*? How does this differ from the sex determination process in mice?

4. How does the hermaphrodite worm differ from the male worm?

5. Describe the process of sex between the hermaphrodite worm and the male worm.

6. Explain how *xol-1* regulates sex determination.

7. What is dosage compensation? How does the dosage compensation in worms differ from that in mice and humans?

Internet References

<http://www.nobel.se/medicine/laureates/2002/press.html> - Sydney Brenner - Nobel Laureate- 2002 A description of his research

<http://www.wormatlas.org/index.htm> - The worm atlas - glossary of anatomical terms - worm viewer- shows anatomical structures

<http://www.wormatlas.org/handbook/bodyshape.htm> - An excellent description of *C. elegans* with illustrations

<http://www.wormbase.org/> - The genome of *C. elegans*

<http://mcb.berkeley.edu/faculty/GEN/meyerb.html> - Barbara Meyer laboratory

<http://www.hhmi.org/lectures/2001/meyer.htm> - Barbara Meyer and research

<http://www.biotech.missouri.edu/Dauer-World/Wormintro.html> - Why study *C. elegans*?

http://www.sanger.ac.uk/Projects/C_elegans/blast_server.shtml - Blast for worms.
Sequence genes. Search for genes

http://elegans.swmed.edu/Worm_labs/ - *C. elegans* laboratories

<http://elegans.swmed.edu/Nematodes/> - Nematodes