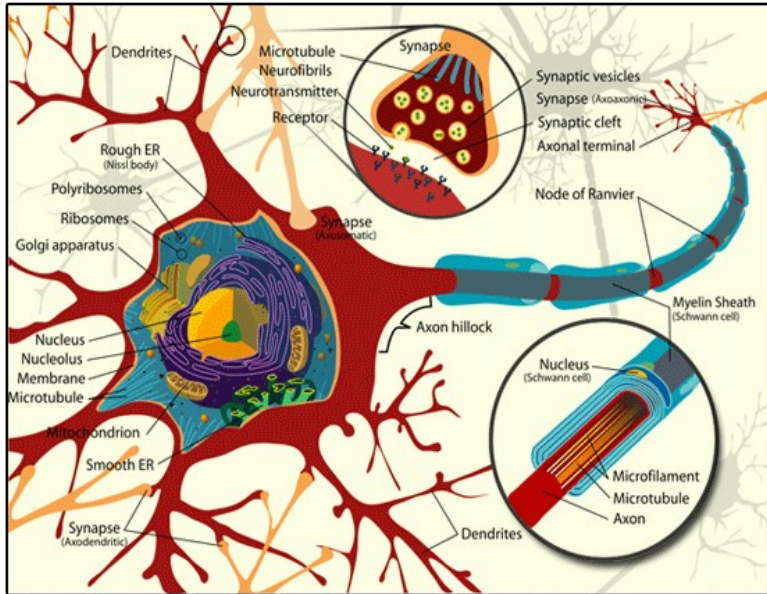


Part 1: Questions

1. As you watch the movie, list the symptoms of ALD.
2. Observe the image of a normal neuron. Now assume several months have passed since Lorenzo's diagnosis. How would the axons of his neurons most probably look?



Typical Neuron
[image source- Wikimedia](#)

Lorenzo's Neuron

3. What are fatty acids?
4. What is the difference between saturated and unsaturated fats?
5. What kinds of fatty acids is Lorenzo's body unable to metabolize?
6. ALD is an x chromosome-linked (sex-linked) recessive disease. If XF= normal fatty acid metabolism and Xf= abnormal fatty acid metabolism or ALD. What are Michaela's, Augusto's, Aunt Dee's and Lorenzo's genotypes and phenotypes?
7. Redraw Augusto's sink model and explain how it represents what is happening in Lorenzo's body.
8. Describe the meaning of the paper clips Augusto used in the library. (the lesson page has a transcript of this scene)

9. What does Augusto's dream reveal about the paper clips?
10. What does competitive inhibition mean?
11. Why did the Odone's ask Aunt Dee to put the combination oleic-erucic oils on her salad before giving it to Lorenzo?
12. What happens to both Aunt Dee's and Lorenzo's fatty acid blood levels after consuming oleic-erucic oils for a few days?
13. Mr. Muscatine says, "If you didn't have all this denial, you wouldn't do a thing to prolong your boys suffering for one minute longer." He goes on to say that it was better when his first boy died quickly, compared to the way his second son has lingered for three years. Is there a point when it is no longer worth living?
14. Another year passes, and Lorenzo is still unable to communicate. Augusto worries that he is still "in there" but that it's like being "trapped down in a dark cave... and he can't find his way out." Is it possible that some medical conditions are worse than death?
15. Augusto asks Michaela, "Do you ever think that all of this struggle may have been for somebody else's kid?" Does that mean it was not worth it? Should they have put Lorenzo through all of his suffering?

Part 2: Letter

Write a persuasive letter to your state representative explaining your position on stem cell research. Include information from this movie and from this unit in your letter. Instead of mailing it, submit it to the *Lorenzo's Oil* Letter dropbox.