Lorenzo's Oil
Solving the paradox of Adrenoleukodystrophy

While watching the movie, *Lorenzo's Oil*, make notes on this paper or another in response to the following discussion questions. After watching the movie, type up your responses and turn them in on the due date. Your answers should be in complete paragraphs, as complete and detailed as possible, and include examples from the movie to illustrate your points.

1. Summarize the plot and the major characters in the movie.

2. Discuss the disease, adrenoleukodystrophy, including the symptoms that Lorenzo experienced. What happens in boys to lead to those symptoms (physiology of the disease)? Also, explain how genetics plays a role in the inheritance of ALD.

3. State how Lorenzo's parents used the scientific method to solve their problem. State the problem and use examples from the movie to illustrate the steps.

4. Describe the two major paradoxes in the movie and explain how models (analogies) and explanation were developed for both. Explain the conclusions drawn as the Odone's worked to understand these paradoxes.

5. Explain one or two other great discoveries that employed the use of models or analogies to understand the problem. (Not in movie; requires research).

6. What were the objections of the physicians and reasons for their objections? Were the objections reasonable?

7. Was it appropriate for the Odones to use themselves as "guinea pigs?" Could this have done more harm than good?

8. Throughout the movie, you hear many people discuss how medical science works. How does science work as portrayed in the movie? How do you believe science should work?

9. What would the odds be of having a child with ALD be if Lorenzo was able to have children and married a carrier for ALD? What would the odds be of having a child with ALD if Lorenzo married a non-carrier for ALD? Use Punnett squares.

10. If you were a carrier for ALD, would you have a child? Would it make a difference if you knew whether the child was a boy or girl? Should you be prevented from having a child by law?