Name: ______________________________

**Video Worksheet: “Extraordinary Measures”**

*Taken from Allison Moyel, Bench 2010 Alumna*

**Instructions:** Answer questions # 1-16 while viewing the film.

1. Megan and Patrick Crowley suffer from ___________________Disease.

2. This disease causes ___________________ deterioration in all regions of the body.

3. List at least two symptoms common in individuals suffering from this disease.
   a. ___________________
   b. ___________________

4. Mr. Crowley contacted ___________________ seeking to assist him in finding a cure for the disease.

5. The disease is a ________________ disorder. Individuals suffering are missing an ________________ which metabolizes sugar (glycogen).

6. Briefly explain what happens to the excess sugar in the bodies of individuals suffering from the disease?
   __________________________________________________________________________
   __________________________________________________________________________
   __________________________________________________________________________

7. Many scientists have attempted to create and inject suffers of this disease with enzymes. Unfortunately, this method of treatment did not work. Why not?
   __________________________________________________________________________
   __________________________________________________________________________

8. Briefly explain how the enzyme Dr. Stonehill was attempting to create differed from those that were previously manufactured.
   __________________________________________________________________________
   __________________________________________________________________________

9. The largest obstacle Dr. Stonehill’s encountered in conducting his research was obtaining adequate ___________________.


10. Why did Mrs. Crowley decide to have another child if Megan had Pompe Disease?
________________________________________________________________________
________________________________________________________________________

11. Briefly explain why it was decided that the clinical trial for the drug created for Pompe Disease would only be initially administered to infants.
________________________________________________________________________
________________________________________________________________________

12. TRUE or FALSE: Dr. Stonehill’s enzyme was one chosen by the pharmaceutical corporation for pharmaceutical trials.

13. What is a sibling trial?
________________________________________________________________________
________________________________________________________________________

14. Shortly after Megan and Patrick were injected with the trial medicine, they began laughing. Explain what this indicated and why they were laughing?
________________________________________________________________________
________________________________________________________________________

15. Currently, if the medicine for Pompe Disease is administered to infants, it can control the _________________ of the disease for life.

16. TRUE or FALSE: Recent laboratory results have shown that Dr. Stonehill’s visionary scientific theory was correct.

Instructions: Answer questions # 17- 20 after viewing the film.

17. The film portrays corporate pharmaceutical companies to be solely concerned with profits rather than human health. How could this corporate mindset impact you as a consumer of pharmaceutical products?
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
18. The notion that researchers should always make scientific decisions objectively was a recurring theme throughout the film? Why must scientists make decisions objectively? Do you think it is reasonable for exceptions to be made? Explain why or why not.

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________________________________________________________________________

19. During the film Mr. Crowely noted that many of the scientists working to find a cure for Pompe Disease had never even seen a person suffering from the disease. Do you think biomedical researchers should come into contact with individuals suffering from the disease they are studying? Explain why or why not.

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