Discussion Questions from

1. What are some of the issues that have created a need for artificial blood?
2. What are some of the current strategies used to deal with low blood volume?
3. What are the leading candidates for oxygen-carrying blood substitutes in the clinic?
4. Describe the pathway along which hemoglobin-based oxygen carriers evolved.
5. Describe some of the advantages and disadvantages of each of the substitutes.
6. As of November 2003 (the date when the article was submitted for publication), which of the blood substitutes were closest to approval for use in humans by the FDA?
7. What are the goals of each stage of the FDA regulatory process?
8. PolyHeme and Hemopure both have unusual features related to their safety testing. What are they?
9. What do the authors suggest as possible reasons why there are divergent results observed in preclinical and clinical studies?