

PROJECT 2. (The Big One)

From the following list of applications of Inorganic Chemistry, select a first, second, and third choice and turn into Tiffany Pinder on Friday, January 18th. You and 4 or 5 others will be assigned to one of the topics to work as a group to perform the following tasks:

- a) **Due Jan. 30.** A list of 15 to 20 questions that, when answered, will define the fundamental inorganic chemistry required to understand the application.
- b) **Due Feb. 15.** An outline of a poster presentation of the topic; a statement of intended goals; a description of 6 graphics that will go in the poster; and at least three references to sources used.
- c) **Due Mar. 27.** Poster Presentation Day. Your poster will be graded on accuracy, completeness (within the scope of your intended goals), visual and oral clarity of expression, and ability to answer questions.
- d) **On May 7.** The Final Examination will have one question specific to your poster presentation. The score on this question will be included in your Project 2 grade.

Case Studies in Inorganic Chemistry:

- 1. Metals in Medicine: Cis-platin and a cure for cancer
- 2. Bioinorganic: Hemoglobin and myoglobin. An iron-porphyrin complex, oxygen binding and transport
- 3. Electrochemistry and the Design of (a) rechargeable batteries; (b) lithium batteries; or (c) fuel cells.
- 4. Organometallic chemistry and catalysis: The Monsanto acetic acid process
- 5. Ziegler-Natta catalysis of polyolefins formation: How it works and how it has evolved
- 6. Solid state, hydrogen storage materials
- 7. Bioinorganic & Metalloenzyme Mechanisms: Carbonic anhydrase
- 8. Toxic metal removal/chelation therapy