

BIOE 149 Poster Assignment

This is an opportunity to learn to use scientific resources (i.e. primary scientific literature), to be creative, and share your research with the class both visually and orally. You will be randomly assigned a pathogen/disease for your poster. Your assignment is to make a poster that includes the following information and/or answers these questions:

- 1) Classify the disease/pathogen. To what genus, family, order, etc. does it belong? **2pts**
- 2) What hosts does the pathogen infect? Which of these are “competent” (infectious) hosts and can transmit the pathogen to another host? Are some “dead-end” hosts? What role does each host species (if more than one) play in transmission? **4pts**
- 3) What is the life-cycle of the pathogen and how is it transmitted? Is transmission likely to be density or frequency dependent? Based on what? **5 pts**
- 4) What type of effects does the pathogen have on each of the hosts (or vectors) it infects? **4 pts**
- 5) What is the global distribution of the pathogen? **2 pts**
- 6) What is the approximate transmission intensity of the pathogen (i.e. cases per year, infection prevalence, etc.)? **3 pts**
- 7) Is there a seasonal or multi-year pattern to the number of infections? Are the number of cases increasing or decreasing? Would you say your disease is “emerging”? **3 pts**
- 8) Are there environmental factors that affect either transmission of the pathogen or pathology/disease severity? **3 pts**
- 9) When was the pathogen discovered, by who, and how? **2 pts**
- 10) Are there treatments or vaccines for disease caused by the pathogen? How do they work? **3pts**
- 11) How well studied is the pathogen (how many papers per year on Web of Science over the last 10 years)? **2 pts**
- 12) What makes this pathogen/disease interesting? **4 pts**
- 13) What isn't known about this pathogen? **3 pts**
- 14) 6 primary sources cited **3 pts**
- 15) **Creativity (5 pts) & Overall effort (5 pts)**

You MUST address all of these questions, ideally with pictures/graphs whenever possible. If something is not known your poster must state that it is not known! When possible/necessary, make tentative conclusions from what information is available.

The poster should consist of 1-2 large pieces of poster-board, no bigger than 5' wide and 3' tall. All text must be in very large letters (18 pt font or larger). Your pathogen and disease name should be in big (36+ pt font) letters near the top. The best posters have a natural flow to the information – all subsections should fit into the overall goal of the poster. Use as little text as possible. Figures and graphs are much better at conveying information than text and are preferred whenever possible. Use bulleted text rather than complete sentences. Photos, in limited quantity can be effective. All figures should have a figure legend that explains what is needed to understand the figure.

The poster must cite at least 6 primary sources (original scientific papers; not Web URLs), in the format you see in the main text of papers (e.g. Jones 2005, Peterjohn & Samuels 2004, or Johnson et al 2009 for 1,2, or 3+ authors). The full citations should be attached to the back of poster on a regular page of paper. Use the format on the BIOE 149 website syllabus, with authors, year, title, journal, issue, page numbers. Example posters are posted on the course website. Some are better than others!

Bring your poster to class on June 5th, and be prepared to give a 90 second oral presentation on your poster to the class that conveys what you think are the important points of your poster.

Timeline:

May 20th: Identified and downloaded scientific papers from Web of Science. Email me a formatted reference list (not the papers themselves).

June 5th: Bring fully assembled poster to class and give 90 second oral presentation.

Have Fun!