**Final assignment**

**Due date: February 13, 2013**

Pick two papers on mathematical modeling of cancer: one that you like and one that you dislike\*,\*\*.

Explain in 10 minutes and in a short written report what these papers have done, what is wrong with the first and what impressed you with the second. Please attach the papers.

In particular, consider the following issues (you are welcome to discuss these with me and others before your presentation):

1. What are the main results?

2. Which mathematical methodologies are used? What are the model assumptions? How the model is constructed (physiological, “reversed engineering”, phenomenological, axiomatic, other)?

3. Is the model refutable? Does it offer specific predictions? Are these qualitative or quantitative?

4. Is the model compared to clinical data, and if so, which kind (in-vivo or in-vitro, human or animal models - wild type or transgenic). Does the paper contain its own data set? How many parameters appear and how the model parameters are determined? Is there a sensitivity analysis?

5. Are the authors’ claims well supported by their model construction and analysis?

6. What do they propose to do in subsequent studies?

7. What would you suggest?

\* Given that I do want your critical opinion, please exclude my papers to avoid conflict of interests.

\*\*Please choose research papers (and not review papers).