**Bioinformatics Homework 1b**

**Type 1: Literature Project**

**Genome-wide Association Studies**

**Assignment**

Choose one of the papers below (note that item 3 consists of 2 papers):

1. Collins et al (2003) A vision for the future of genomics research, *Nature* 422: 1-13
2. Pompanon et al (2005) Genotyping errors: causes, consequences and solutions, *Nature Reviews* 6: 847-859
3. NCI-NHGRI Working Group on Replication in Association Studies (2007) Replicating genotype- phenotype associations, *Nature* 447(7): 655-660 *together with*

Peloso et al (2011) Choice of population structure informative principal components for adjustment in a case-control study, *BMC Genetics* 12: 64-73.

1. Gibson (2012) Rare and common variants: twenty arguments, *Nature Reviews* 13: 135-145

These papers extend or provide additional background on the course notes covering “bioinformatics”, “molecular biology”, and “sequence analysis”.

Read the paper and summarize it. Clearly specify its objectives, summarize methods used or explained, and discuss its content, by looking into additional resources on the web.

Do not copy the paper, but show you have understood the main ideas of the paper and “discuss” the paper. Such a discussion could include thoughts on what was the key idea, strengths or weaknesses of the methods/experiments, comments on the writing, ways to extend the work, flaws in the argument/data/experiments, etc. Anything is fine, as long as it demonstrates some real thought.

All literature projects will be presented and discussed in the class of 10th December 2013. Hence, **make sure you prepare a 10-15 minutes presentation**!