

02- 716: Cross species analysis of genomics data

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Monday & Wednesday, 3-4:20, 6501 GHC

Course requirements:

The class will consist of two parts. In the half (first 7 weeks) the instructors will deliver lectures in class. These lectures provide overview regarding a large number of questions that are being studied using cross species genomics data and the different types of data that are available to address these questions.

The second half of the class will consist of student presentations (and a few invited talks, see schedule). Each student will give 2, 30 minutes lectures, summarizing a paper that uses cross species analysis to address specific biological problems. We provide a list of potential papers on the class website though you are more than welcomed to select a paper not on the list with approval from the instructors.

Finally, students will work on their own or in pairs to perform a project for the class. The projects would either develop a new method and apply it to cross species data or would extend or test an existing method on new datasets. Students will present their projects on a special poster session during the last day of class. Students would also be required to hand in a 1 page project proposal (see schedule) and a final project report (at most 8 pages) on the Monday following the poster session.

Grading

Lectures - 40%

Projects – 50%

Class participation – 10%