A motivated student is required for a computational project in cancer biology

Project Title:

Analyzing aneuploidy patterns in clinical samples of human cancer

Project Description:

Dr. Uri Ben-David is a Postdoctoral Fellow at the Cancer Program of the Broad Institute of MIT and Harvard. In October 2019 he will open his lab at Tel Aviv University, Sackler Faculty of Medicine, Department of Human Molecular Genetics & Biochemistry. The Ben-David lab will apply experimental and computational approaches to studying cancer aneuploidy. Dr. Ben-David is currently looking for a highly-motivated B.Sc. or M.Sc. student who is interested in working with him on a computational project. The starting date is flexible, and the project could potentially include a summer internship at the Broad Institute, in Cambridge, Massachusetts. The project may naturally lead to a Masters or a Ph.D. position at the Ben-David lab (starting next year; no commitment is required).

Aneuploidy, an abnormal number of chromosomes, is a poorly understood hallmark of cancer. You will lead the analysis of genomic data from clinical samples of human cancer. You will work closely with Dr. Ben-David to apply statistical and computational tools to study the recurrence patterns of aneuploidy across multiple tumor types. You will have the opportunity to interact with experimental and computational biologists and gain experience in applying your computational skills to addressing an important open question in cancer biology.

More broadly, you will get to know a fast-paced, extremely-diverse academic research lab exploring large genomic data sets, working closely with both biologists and computer scientists to address a question that may ultimately help guide the treatment of cancer patients.

Prerequisites:
- Highly motivated student in computer science, bioinformatics or computational biology
- Strong computational skills in R, MATLAB or Python
- Prior knowledge in genetics and/or in cancer is a plus
- Prior experience in computational biology is a plus

Contact Name: Uri Ben-David
Contact Email: bendavid@broadinstitute.org

The application should contain a CV, your general availability, and a brief paragraph on your interests and expectation of the project.