



MASSACHUSETTS  
GENERAL HOSPITAL



HARVARD  
MEDICAL SCHOOL

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## **Two postdoctoral positions in experimental and computational biology**

Two postdoctoral positions in experimental and computational biology are available in the Naxerova laboratory (<https://csb.mgh.harvard.edu/naxerova>) at the Center for Systems Biology at Massachusetts General Hospital and Harvard Medical School.

The Naxerova lab studies the evolutionary history of cancer, using a blend of high-throughput experimental and computational approaches. We are interested in understanding how processes of mutation and selection in normal (stem) cells set the stage for cancer evolution. Once a tumor develops, how does tissue-specific selection shape the cancer genome? How can we take advantage of genetic intra-tumor heterogeneity to gain insights into the life history of a cancer? A particular interest of the lab is metastasis evolution. Do metastases arise from distinct clones with special, genetically encoded properties or do they represent random samples of the primary tumor? Do all metastases arise independently from the primary tumor, or do they give rise to each other? Does metastatic spread happen early or late in tumor development? Perhaps most importantly, is there a correlation between the evolutionary history of metastases and clinical outcomes? We are developing and applying new methods for lineage tracing in human cancer, with the ultimate goal of understanding a tumor's entire evolution from the founder cell to lethal systemic disease.

We have exciting new projects investigating metastasis patterns in colorectal cancer and melanoma and are looking for two postdoctoral fellows or PhD students to join the team. Both experimentally and computationally inclined candidates are encouraged to apply. We are implementing experimental methods that generate large amounts of complex data and can thus offer fertile playing grounds to both experimentalists and bioinformaticians.

There are no specific requirements for the job – we can teach you all the specifics here – but you should really burn for cancer genetics, enjoy grappling with difficult problems, be friendly and collegial, and have a track record in academic science that shows your commitment to this line of work.

The Center for Systems Biology (CSB), a multidisciplinary thematic center at Massachusetts General Hospital and Harvard Medical School, houses a vibrant scientific community united by its interest in integrative biology and translational medicine. CSB and the larger Harvard community in which it is embedded offer near limitless opportunities for education and interdisciplinary collaboration. MGH offers excellent benefits to all employees and is an equal opportunity employer. All qualified applicants will receive consideration for employment without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, disability status, protected veteran status, or any other characteristics protected by law.

To apply, please send a brief (less than 1 page) statement describing your interest in cancer (phylo) genetics and your CV to Serena Sullivan ([Sullivan.Serena@mgh.harvard.edu](mailto:Sullivan.Serena@mgh.harvard.edu)), CSB, Simches Research Center, 185 Cambridge Street, Suite 5.210, Boston, MA 02114.