



Postdoctoral Position in Cancer Biology at Cold Spring Harbor Laboratory

The Sheltzer Lab at Cold Spring Harbor is seeking candidates for an NIH-funded postdoctoral position studying the consequences of aneuploidy and gene dosage imbalances in cancer.

Nearly 90% of human tumors display whole-chromosome copy number changes, making aneuploidy a more common genetic alteration in cancer than mutations in *TP53*, *MYC*, or *KRAS*. Chromosome gains and losses alter the dosage of thousands of genes at once, which can have a profound effect on normal cellular functions. But, despite its ubiquity in cancer and its enormous consequences, we have little idea how aneuploidy shapes tumor biology. We are working to apply tools from functional genomics, cell biology, and molecular biology to understand the ways in which aneuploidy impacts cell physiology and tumor development. Current projects include applying CRISPR/Cas9 technology to generate and study new models of aneuploidy, determining the interaction between aneuploidy and the tumor microenvironment, and identifying therapeutic vulnerabilities created by the aneuploid state.

This work builds upon our prior research, including our discovery that aneuploidies can function as tumor suppressors ([DOI: 10.1101/040162](https://doi.org/10.1101/040162)), the demonstration that aneuploidy drives cellular mutagenesis and structural rearrangements ([PMID: 21852501](https://pubmed.ncbi.nlm.nih.gov/21852501/)), and the elucidation of transcriptional patterns caused by aneuploidy in primary and transformed cells ([PMID: 22802626](https://pubmed.ncbi.nlm.nih.gov/22802626/) and [24041940](https://pubmed.ncbi.nlm.nih.gov/24041940/)). More information on our research can be found at <http://sheltzerlab.labsites.cshl.edu/>.

Cold Spring Harbor Laboratory is located on Long Island, outside of New York City, in New York, USA. Home to eight Nobel Laureates, Cold Spring Harbor provides an immersive and highly-collaborative research environment on the shores of the Long Island Sound. Cold Spring Harbor is an NCI-designated Cancer Center, and every year, over 10,000 scientists journey to Cold Spring Harbor to attend one of CSHL's famous Meetings and Courses.

We are looking for scientists who have a Ph.D. in Molecular Biology, Cell Biology, or a related field, and are seeking to join a small and growing team to investigate these key topics in cancer biology. Questions about the position can be directed to Dr. Sheltzer at sheltzer@csHL.edu. Interested candidates can apply via the CSHL careers website at <https://csHL.peopleadmin.com/postings/9796>, position number 01430-R.

CSHL is an EO/AA Employer. All qualified applicants will receive consideration for employment and will not be discriminated against on the basis of race, color, religion, sex, sexual orientation, gender identity, national origin, age, disability or protected veteran status.