# Equipment

Cold Spring Harbor already has all of the equipment that we expect to require for this project. This includes a high-performance computing cluster. This cluster contains 46 compute nodes with a total of 4576 cores. 14 of these nodes are GPU nodes each with 4 NVIDIA Tesla V100 GPUs. This cluster provides the computing power to process large splicing datasets and to train neural network models. The Kinney lab has a wet lab fully outfitted for molecular biology work and variant library cloning and sequencing library preparation. This will provide the tools and resources I need to perform massively parallel splicing assays on designed libraries of variants. Tissue culture of the cell lines required for the splicing assays will be enabled by access to the Cold Spring Harbor Tissue Culture Facility which includes 12 laminar flow hoods, dissection scopes, and cell counters. Splicing assay data collection will be enabled by the equipment made available throught the Cold Spring Harbor Next Generation Sequencing Core. This includes a bioanalyzer, an Illumina MiSeq, an Illumina Nextseq 500, an Illumina Nextseq 550, an Illumina Nextseq 2000, a Pacific Biosciences Sequel II, an Oxford Nanopore GridION, and an Oxford Nanopore PromethION. Access to this equipment will enable collecting splicing data from targeted massively parallel splicing assays.