

NIH Advisory Committee to the Director
December 15, 2023

Summary of HeLa Genome Data Access Request

1. Project #35933, Using HeLa genome sequences for CRISPR sgRNA design
Weizmann Institute of Science, Rehovot, Israel

This page intentionally left blank

National Institutes of Health
 Advisory Committee to the Director
 HeLa Genome Data Access Working Group
HeLa Genome Data Access Request: Project 35933

Working Group Finding	Consistent with the Data Use Agreement
Project Title	Using HeLa genome sequences for CRISPR sgRNA design
Date Received	10/26/2023
Project Summary (Provided by NIH)	<ul style="list-style-type: none"> The investigator proposes to make targeted double-stranded breaks, or cuts, in the HeLa cell genome using a specific DNA-cutting technology, CRISPR/Cas9. To make the cuts, the investigator needs to design HeLa-specific sgRNAs, or nucleic acid guides, to direct where the cuts are made in the HeLa cell genome. Access to the HeLa Cell Genome Sequencing Studies would allow the investigator to develop HeLa-specific sgRNAs.
Institution	Weizmann Institute of Science, Rehovot, Israel
Collaborator(s)	Internal
Research Use Statement (Provided by Requestor)	<p>The requested dataset will be used to identify HeLa-specific CRISPR/Cas9 sequences. Using this, we plan to design sgRNAs that cut at specific locations in the HeLa genome. Since the HeLa genome is rearranged compared to the normal human reference genome, it is essential for us to know where our designed sgRNAs will cut in HeLa cells.</p> <p>The dataset will only be used by people mentioned in this application to identify relevant sgRNA targets for our study. Information from the requested dataset will not be published, with the exception of sgRNA sequences that will be designed using the datasets. We have no plan to develop a commercial product or service or to file Intellectual Property (IP) on findings from using this dataset. Although we are not expecting to change our plans regarding our intention to seek IP or commercialization, we will inform the NIH if our plans change.</p>
Non-Technical Summary (Provided by Requestor)	The requested dataset contains information on the DNA sequence of the HeLa cancer cell line, which is widely used in biological research. Access to this DNA sequence will allow designing molecular biology tools that could manipulate the HeLa genome. Such manipulation will be helpful in studying how specific genomic perturbations affect cancer cells.