

NIH Advisory Committee to the Director
December 9, 2022

Summary of HeLa Genome Data Access Requests

1. Project #32922, Assessing splice variants of RNA binding proteins
University of Kansas Medical Center, Kansas City, KS

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National Institutes of Health
 Advisory Committee to the Director
 HeLa Genome Data Access Working Group
HeLa Genome Data Access Request: Project 32922

Working Group Finding	Consistent with the Data Use Agreement
Project Title	Assessing splice variants of RNA binding proteins
Date Received	8/22/2022
Project Summary (Provided by NIH)	<ul style="list-style-type: none"> • RNA-binding proteins (RBPs) participate in the processes that turn on or off the expression of genes in a cell important for biological processes. The requester is investigating one such biological process, inflammation, and how the location of where RBPs bind influences cellular inflammation. • Using HeLa cells, the requester identified unique locations where RBPs bind to mediate inflammation. The requester seeks access to the HeLa Cell Genome Sequencing studies to identify the precise location of where the RBPs bind to understand how the location may work together with the RBPs to control inflammation gene expression.
Institution	University of Kansas Medical Center, Kansas City, KS
Collaborator(s)	None
Research Use Statement (Provided by Requestor)	Our lab examines the role of RNA binding proteins (RBPs) on the promotion of inflammation. We are currently using datasets from RefSeq and ENSEMBL to perform gene mapping. However, our experimental studies using HeLa CCL2 cells reveal unique mutations and modifications that are not present in RefSeq datasets. Therefore, access to the full dbGaP dataset will allow us to accurately determine the precise sequence for our studies. It will also allow us to better assess the downstream consequences/targets of the RBP mutations. No commercial products/services are anticipated to arise from this work. We agree to inform the NIH, if our plans should change. Findings are likely to be disseminated via publications and presentations.
Non-Technical Summary (Provided by Requestor)	RNA binding proteins (RBPs) play important roles in cellular function. Their functions can be regulated at both the RNA and protein level. This project will use the HeLa cell dataset to map/match the occurrence of the various modifications to our experimental datasets. We will determine how these modifications alter cellular function.