



**Integrating ENCODE data with your research:
An interactive survey of ENCODE data and resources**

ENCODE Portal: Introduction

ENCODE ASHG 2020 Virtual Meeting

Section 1: ENCODE Portal - DCC

Section 2: SCREEN - DAC

Section 3: Juicebox - Aiden Lab

COVID-19 is an emerging, rapidly evolving situation. [CDC health information](#) [NIH research information](#)



National Human Genome
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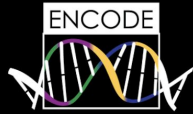
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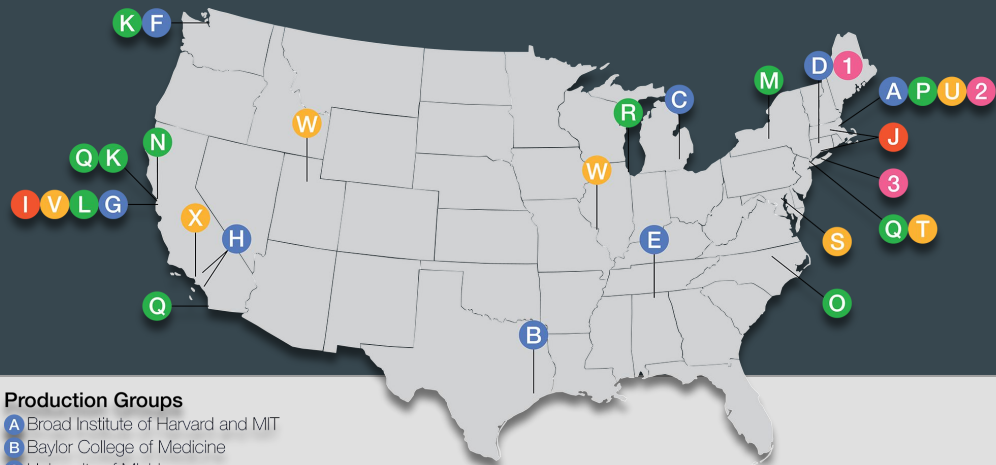


The Encyclopedia of DNA Elements (ENCODE)

ENCODE is a public research consortium aimed at identifying all functional elements in the human and mouse genomes.

<https://www.genome.gov/Funded-Programs-Projects/ENCODE-Project-ENCyclopedia-Of-DNA-Elements>

PHASE IV of ENCODE



Production Groups

- A** Broad Institute of Harvard and MIT
- B** Baylor College of Medicine
- C** University of Michigan
- D** The Jackson Laboratory
- E** HudsonAlpha Institute for Biotechnology, University of Alabama in Huntsville
- F** Altius Institute for Biomedical Sciences
- G** Stanford University
- H** California Institute of Technology, University of California, Irvine

Data Coordination Center

- I** Stanford University

Data Analysis Center

- J** University of Massachusetts Medical School; Yale University

Characterization Centers

- K** University of California, San Francisco; University of Washington
- L** Stanford University
- M** Cornell University
- N** Lawrence Berkeley National Laboratory
- O** Duke University
- P** Broad Institute of Harvard and MIT
- Q** University of California, San Francisco; University of California, San Diego; Ludwig Institute for Cancer Research
- R** University of Chicago

Computational Analysis Groups

- S** Johns Hopkins University
- T** Memorial Sloan Kettering Cancer Center
- U** Harvard University; Brigham and Women's Hospital
- V** Stanford University
- W** Washington University; University of Utah
- X** University of California, Los Angeles

Affiliated Groups

- 1** University of Connecticut Health Center
- 2** Dana-Farber Cancer Institute
- 3** Cold Spring Harbor Laboratory

FROM the LAB to the ENCODE PORTAL

The LAB

ENCODE DCC

ENCODE PORTAL



NGS data

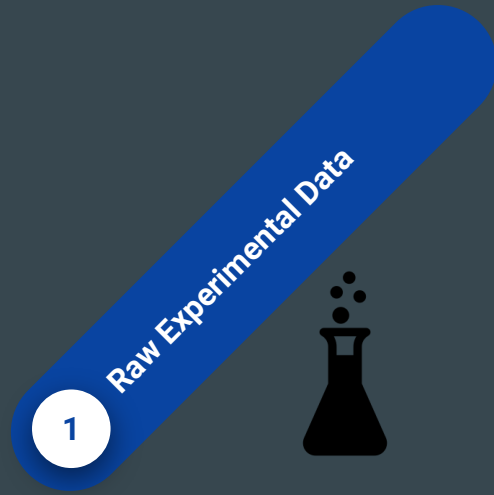


Metadata standards, ontologies,
FAIR principles, data curation,
uniform processing



Open access, REST API

FROM the LAB to the ENCYCLOPEDIA

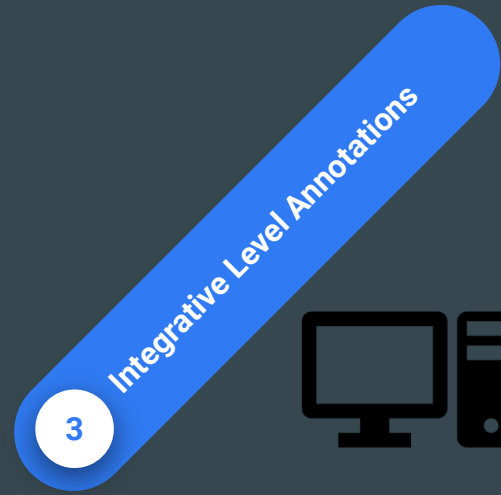


NGS data



TSSs, DHSs, Loops,
TADs, TF peaks,
histone peaks

encodeproject.org



promoter-like,
enhancer-like,
chromatin states,
imputations

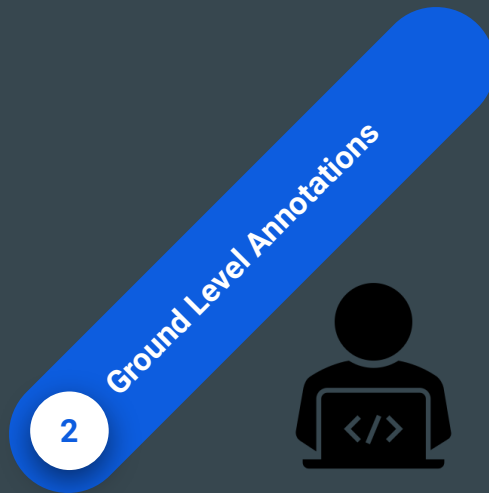
screen.encodeproject.org

FROM the LAB to the ENCYCLOPEDIA and **BACK**



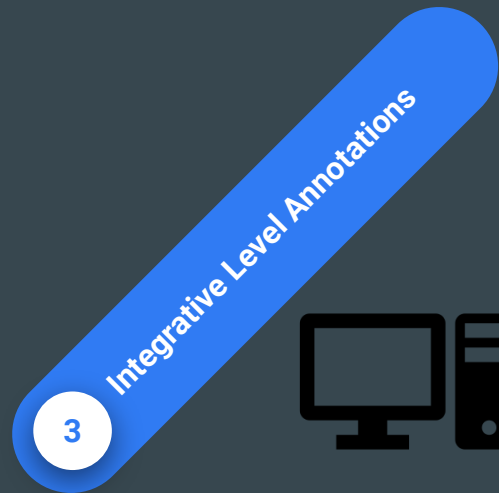
NGS data

Functional characterization assays
(MPRA, STARR-seq, CRISPR screens)



TSSs, DHSs, Loops,
TADs, TF peaks,
histone peaks

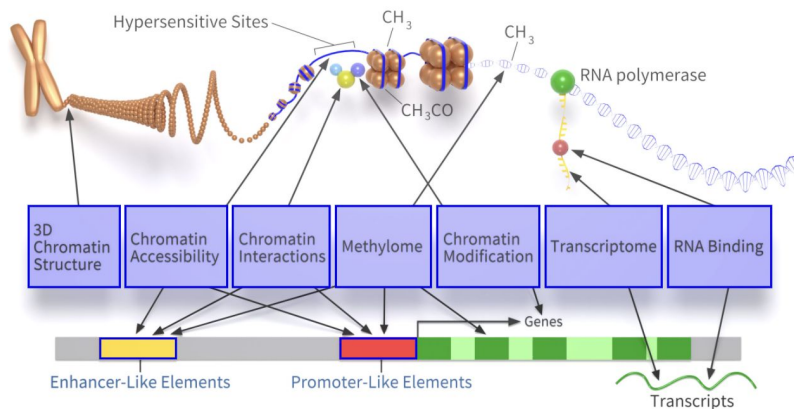
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promoter-like,
enhancer-like,
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ENCODE: Encyclopedia of DNA Elements



Based on an image by Darryl Leja (NHGRI), Ian Dunham (EBI), Michael Pazin (NHGRI)

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?

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Section 1: ENCODE portal

Introduction

Portal content

Portal navigation 1 & 2

Portal data collections

Basic & advanced query building

Ontologies

Carts



THANK YOU!

encode-help@lists.stanford.edu