AnVIL | NHGRI Analysis, Visualization, and Informatics Lab-space

Are you unable to access data from NIH dbGaP due to new security requirements?

Rely on AnVIL's built-In, certified compliance — At no extra cost.

AnVIL is a federally certified secure environment for human genomic data, trusted across NIH. It meets the NIST SP 800-171 security standards required as of January 25, 2025 for controlled-access data (NOT-OD-24-157).

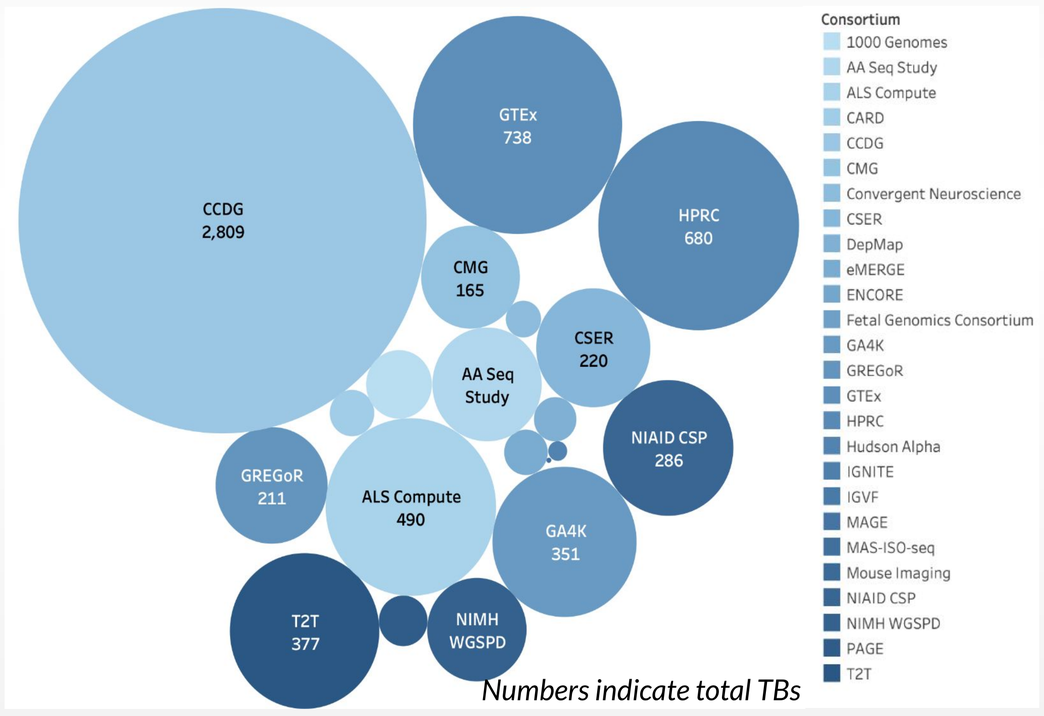
AnVIL is also the NIH-designated data repository for NHGRI-funded genomic datasets (NOT-HG-24-020). It holds an official Authority to Operate as a FISMA Moderate-impact system and is FedRAMP authorized at the Moderate level, providing researchers with certified compliance at no additional cost.

In addition, AnVIL provides streamlined pathways to import data directly from dbGaP and other NIH repositories into the secure cloud environment — eliminating the need to download controlled data onto local infrastructure.

Access 600k genomes, and nearly 7Pb of data in AnVIL

A key offering of the AnVIL platform is the diverse human genomic datasets available to researchers. Current consortia include:

- Genotype-Tissue Expression (**GTEx**)
- Centers for Common Disease Genomics (**CCDG**)
- Electronic Medical Records and Genomics (**eMERGE**)
- Telomere-2-Telomere (**T2T**) consortium
- Human Pangenome Reference Consortium (**HPRC**)
- Genomics Research to Elucidate the Genetics of Rare diseases (**GREGoR**)
- Multi-Omics for Health and Disease (**MOHD**)



Numbers indicate total TBs

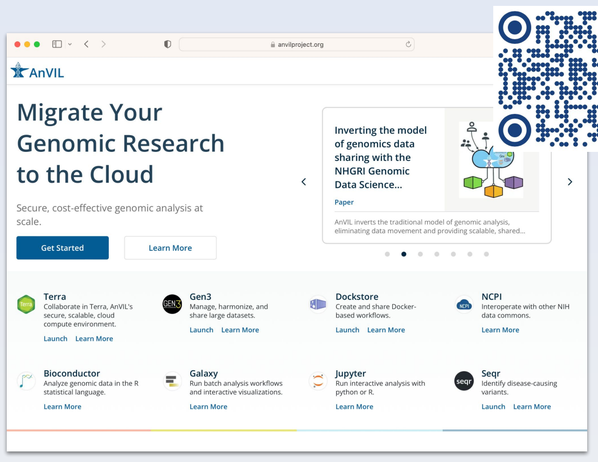
Power your next discovery with AnVIL's scalable compute and tools

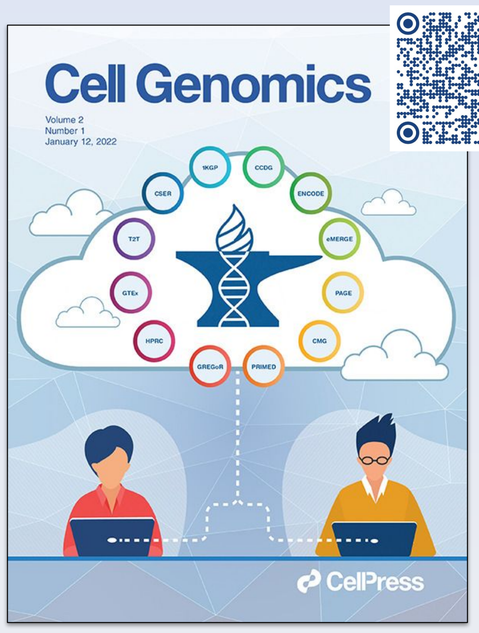
Featured analyses on AnVIL

- Variant discovery (SNVs, SVs, Indels, CNVs)
- Differential gene expression (bulk + single-cell)
- Epigenomics (methylation, ChIP-seq)
- GWAS and Polygenic Risk Score analysis
- Machine learning in genomics
- Cancer genomics (somatic, CHIP, fusion detection)
- Infectious disease genomics (COVID-19, malaria, TB, viral insertion)

How do I get started using AnVIL?

Check out the data and tools available at anvilproject.org



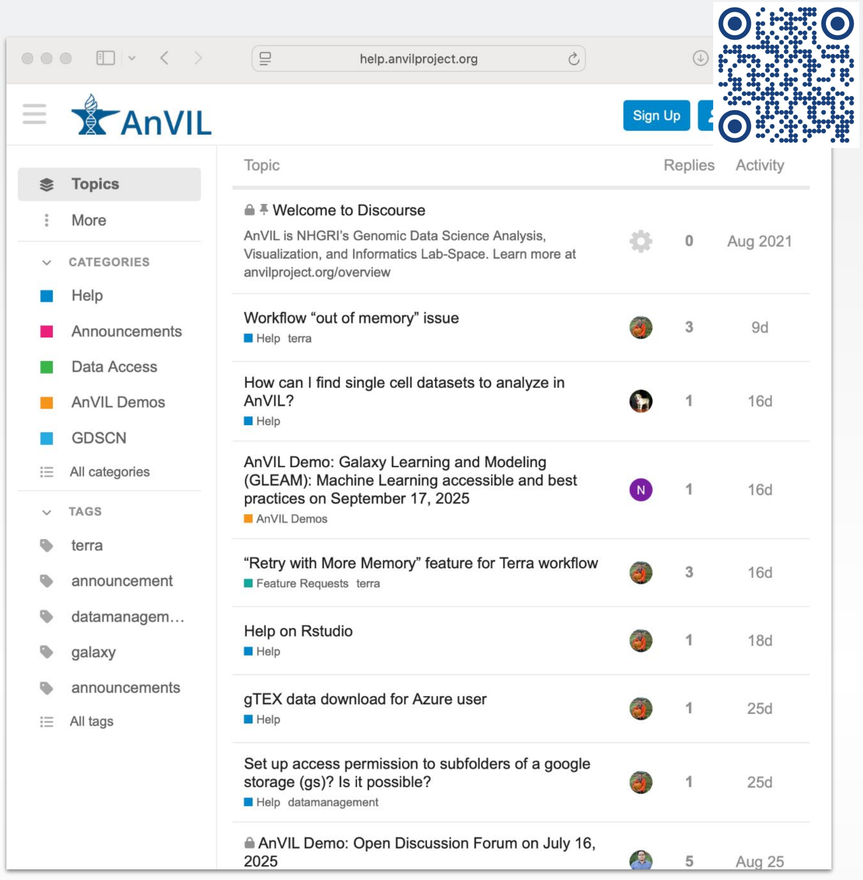


Learn about AnVIL:
doi: 10.1016/j.xgen.2021.100085

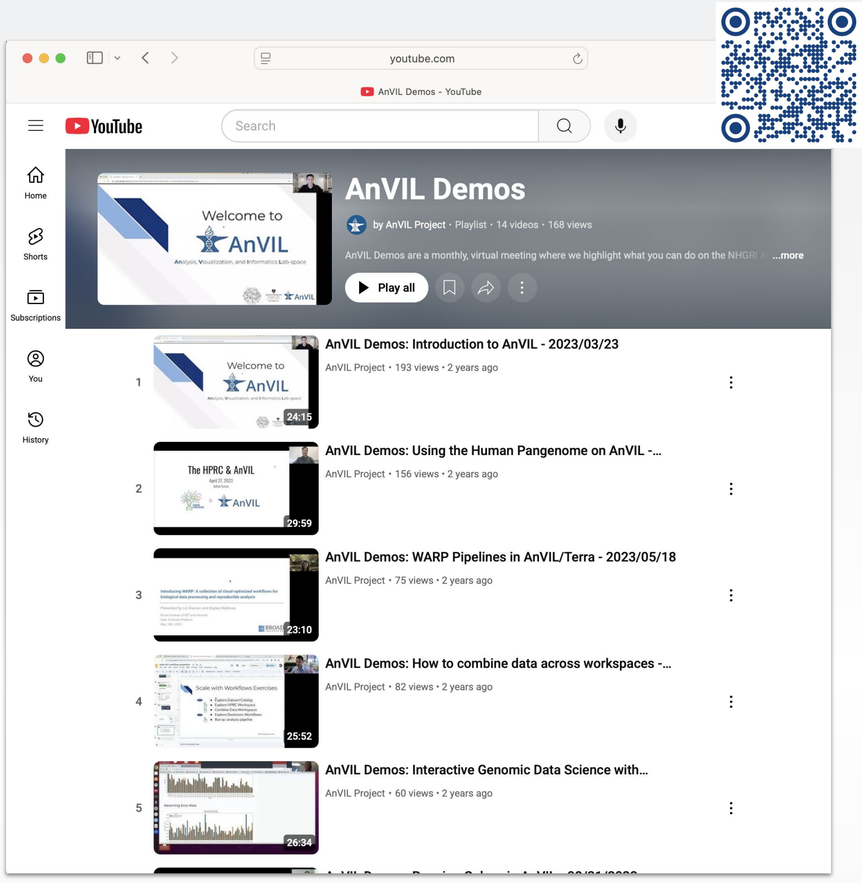
Learn to use AnVIL step-by-step:
hutchdatascience.org/AnVIL_Collection

How do I engage with the AnVIL team?

24/7 support on AnVIL help forum



Live and recorded AnVIL Demos



Talks and Workshops

AnVIL @ ASHG ANNUAL MEETING 2025
BOSTON, MA • OCTOBER 14-18

The All of Us + AnVIL Imputation Service

Poster Board 2053T
Wednesday, Oct 16, 2:30 pm - 4:30 pm ET
Chris Kachulis

AnVIL: Unified genomics computing environment

Poster Board 2059T
Thursday, Oct 16, 2:30 pm - 4:30 pm ET
Stephen Mosher

Expanded multi-omic data from the rare disease focused GREGoR Consortium

ASHG Ancillary Session
Thursday, Oct 16
11:45 am - 1:15 pm

Room 102AB, Thomas M. Menino Convention & Exhibition Center (MCEC)

GREGoR, Michael Schatz