DATABASE SPOTLIGHT

THE CANCER GENOME ATLAS PROGRAM (TCGA)

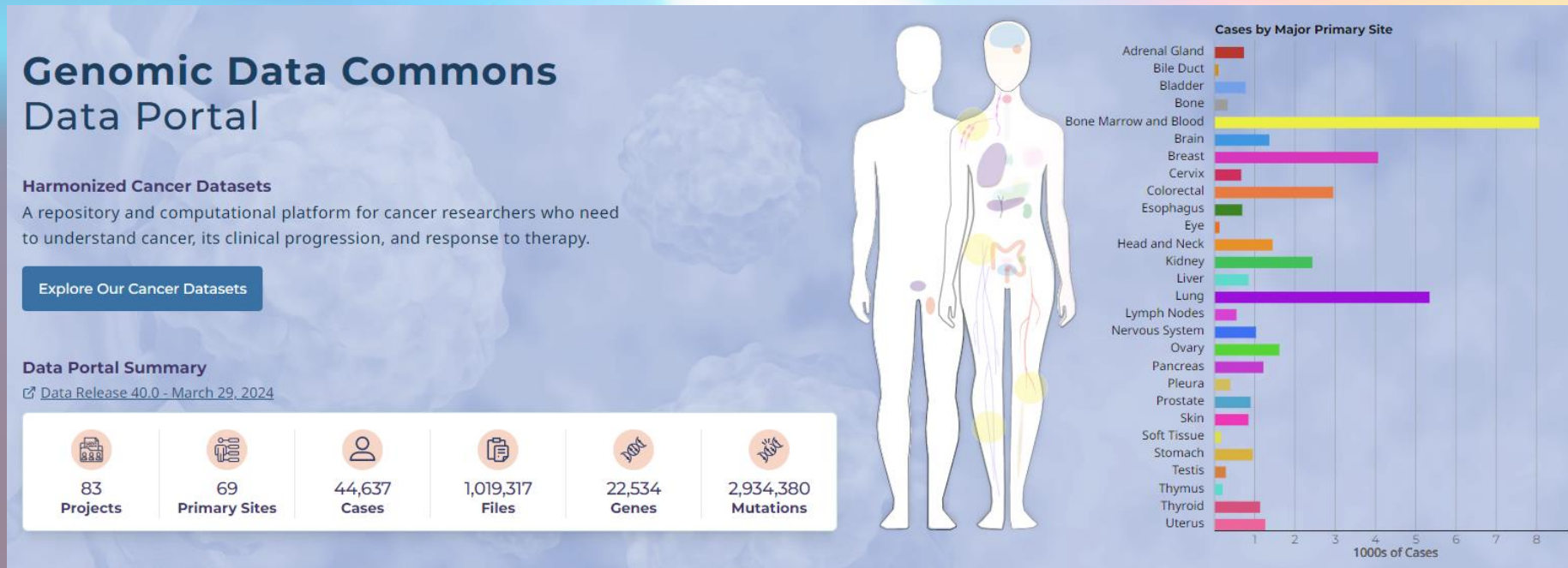https://www.cancer.gov/ccg/research/genome-sequencing/tcga

The Cancer Genome Atlas Program (TCGA)

The TCGA is a publicly funded project that aims to catalogue and discover major cancer-causing genome alterations in large cohorts of over 30 human tumors through large-scale genome sequencing and integrated multi-dimensional analyses. The primary goal is to uncover genetic mutations, epigenetic changes, and other molecular alterations associated with various cancers.

TCGA's Data:

33 TCGA Cancers Selected for Study

Data Types Collected:

Clinical

DNA

Methylation

miRNA

Protein Expression

Copy Number

Imaging

Microsatellite Instability

mRNA Expression

Helpful Resources:

- TCGA Overview:

https://www.youtube.com/watch?v=l1g5gWHLpCQ

- Downloading Data from TCGA:

https://www.youtube.com/watch?v=GDxj8DrkZok

- Video Tutorials:

https://docs.gdc.cancer.gov/Data_Portal/Users_Guide/Video_Tutorials/

- Getting Started with the GDC Data Portal:

https://docs.gdc.cancer.gov/Data_Portal/Users_Guide/getting_started/

IF YOU ARE INTERESTED IN LEARNING MORE ABOUT THE CANCER GENOME ATLAS PROGRAM, PLEASE CONTACT KENT RIPPLINGER AT:

kent.p.ripplinger.2@und.edu