1. NCI, genomic, transcriptomic, 33

### Established a rich genomics data resource for the broad research community. Scientists studying metagenomics, immunology, and other diseases and topics continue to mine and learn from TCGA data.

### Pan-Cancer Atlas

1. Poor prognosis, Overall public health impact, Availability of samples meeting standards for patient consent, Availability of samples meeting standards for quality and quantity that include: Primary, untreated tumor with a source of matched normal tissue or blood sample, Frozen, sufficiently sized, resection samples, Samples composed of at least 80% tumor nuclei (threshold later lowered to 60% with improved sequencing technology and computational methods), With support from patients, patient advocacy groups, and doctors, many rare cancers were also included
2. It is the most common type of kidney cancer.
3. One of the ways the informed consent is maintained is through keeping a high degree of confidentiality via keeping number codes to maintain a degree of anonymity.
4. Proteome Characterization Centers, Proteogenomics Translational Research Centers, and Proteogenomic Data Analysis Centers
5. Data Portal, Antibody Portal, and Assay Portal