

The Center for Cancer Genomics (CCG) supports the development and application of genomic science to improve cancer diagnosis, treatments, and outcomes by bringing data and resources to the research community, investigating the molecular underpinnings of the disease, and identifying targets and strategies for precision medicine.

Research Programs

STRUCTURAL GENOMICS - characterizing mutations and other molecular features of cancers

- Adjuvant Lung Cancer Enrichment **Marker Identification & Sequencing Trial (ALCHEMIST)**
- Cancer Driver Discovery Program (CDDP)
- Cancer Genome Characterization **Initiative (CGCI)**
- Cancer of Unknown Primary (CUP)
- Clinical Trial Sequencing Project (CTSP)

- **Early Onset Malignancies Initiative**
- Exceptional Responders (ER)
- **Refractory Cancers**
- Therapeutically Applicable. Research to Generate Effective Treatments (TARGET)
- The Cancer Genome Atlas (TCGA)

FUNCTIONAL GENOMICS – elucidating the pathways underlying cancer to inform precision medicine

- Cancer Target Discovery & Development (CTD²) Working to understand how tumor heterogeneity leads to drug resistance in order to develop optimal combinations of chemotherapy or small molecules with immunotherapy, ocg.cancer.gov/programs/ctd2
- **Human Cancer Models Initiative (HCMI)** Generating next-generation, patient-derived cell culture models annotated with clinical, molecular and biospecimen data. ocg.cancer.gov/programs/hcmi

COMPUTATIONAL GENOMICS – improving data accessibility and analyses

Genomic Data Commons (GDC) - A public platform for accessing and analyzing harmonized genomic data. Identifies best-in-class bioinformatics pipelines and develops web-based computational tools. Provides cloud-based, high performance options to access data through NCI's Cloud Resources gdc.cancer.gov

Resources

- Updates & Insights Blog Current topics in cancer genomics and CCG news. cancer.gov/ccg/blog
- **Personal Genomics Podcast** Behind-the-scenes research stories told by real people. cancer.gov/personal-genomics

Questions **Twitter Updates** @NCIGenomics

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