



CANCER GENOMICS CONSORTIUM.

*Educating for Best Practices in Clinical Cancer Genomics*



# Compendium of Cancer Genome Aberrations (CCGA)

[www.ccgga.io](http://www.ccgga.io)



# CCGA Wiki Pages

- Compendium of Cancer Genome Aberrations (CCGA)
  - collaborative project to document and describe genomic rearrangements in cancer.
  - Supported by Cancer Genomics Consortium (CGC)



# Home Page

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Page Discussion

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Compendium of Cancer Genome Aberrations (CCGA) is collaborative project to document and describe chromosome and other genomic abnormalities in cancer. This resource is supported by the [Cancer Genomics Consortium \(CGC\)](#) and others with an interest in clinical cytogenetics, molecular genetics and genomics in cancer. [Contact us](#) for more information.



## Chromosome Abnormalities

Browse chromosome abnormalities found in hematological, soft tissue and solid tumors



## Copy Number Abnormalities

Learn about common copy number changes detected by chromosomal microarray



## Cancer Types

Browse disease sites and their associated genomic abnormalities



## Teaching

Learn about chromosome abnormalities in cancer and associated mechanistic phenomena



## Technical Standards and Protocols

Browse and exchange laboratory protocols and bioinformatics analysis pipelines



## Cancer Genes

Learn about genes linked to cancer causation



## Join Us!

Learn about this project, the CGC, its members and how to join



## Submit an Article

Submit a gene review or browse [Recently Added Pages](#)



## Find a Member

See who is contributing

- NOTE: Much of this resource is under construction and in need of contributions from our field.



# Chromosome Abnormalities

## Search Chromosome Abnormalities

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- 1 Show Me Everything
- 2 Search By Chromosome
- 3 Search By Disease
- 4 Search By Abnormality Type

### Show Me Everything

All Structural and Numerical Changes

### Search By Chromosome

[Chromosome 1](#) [Chromosome 2](#) [Chromosome 3](#) [Chromosome 4](#) [Chromosome 5](#) [Chromosome 6](#) [Chromosome 7](#) [Chromosome 8](#) [Chromosome 9](#) [Chromosome 10](#) [Chromosome 11](#) [Chromosome 12](#) [Chromosome 13](#) [Chromosome 14](#) [Chromosome 15](#) [Chromosome 16](#) [Chromosome 17](#) [Chromosome 18](#) [Chromosome 19](#) [Chromosome 20](#) [Chromosome 21](#) [Chromosome 22](#) [Chromosome X](#) [Chromosome Y](#)

### Search By Disease

1. MDS
2. AML
3. B-ALL
4. T-ALL

### Search By Abnormality Type

1. Translocations
2. Insertions
3. Inversions
4. Deletions

- Blue = Wiki page available
- Red = Not built yet
- NOTE: Not all Wiki pages have useful information entered yet.



# Chromosome Abnormalities

- Select “Show Me Everything” to see all CCGA documented rearrangements with associated genes and disorders
  - Includes translocation, inversions, CNVs, isochromosomes, cryptic rearrangement, numerical abnormalities, and primarily pediatric abnormalities

## INVERSIONS

ANOMALY	ASSOCIATED DISORDERS with FISH test	GENES
inv(3)(q21q26.2)	MDS, AML	RPN1-MECOM(EVI1)
inv(11)(q21q23)	MDS, AML M2, T-ALL	MAML2-MLL
inv(14)(q11.2q32)	PLL	TRA-TCL1A(TCL1)
inv(16)(p13.1q22)	AML M4Eo	MYH11-CBFB

- Blue = wikipage available
- Red = Not built yet



# Copy Number Alterations

- Click on 'Copy Number Alterations' on Home Page and Search
- By Disease
  - Some diseases have Plotly CNA genomic profile graph based on TCGA data.
    - Particularly helpful for whole genome microarray.
- Full CNA Database Table
  - Disease-specific data at either gene level or cytoband level.
  - Any known therapies
  - PMIDs referenced for entry



# Cancer Types

- Click on 'Cancer Types' on Home Page
  - Expand WHO Classification for various tumor types
    - CNS tumors
    - Head and Neck tumors
    - Endocrine tumors
    - Breast tumor
    - Heme and Lymphoid Neoplasms
- Blue = wikipage available
  - Red = Not built yet



# Links to Technical Standards



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## Technical Standards and Protocols

### Contents [\[hide\]](#)

- [1 Technical Standards](#)
- [2 Protocols](#)

### Technical Standards

- [ACMG technical standards and guidelines: chromosome studies of lymph node and solid tumor–acquired chromosomal abnormalities \(2016\)](#)
- [ACMG technical standards and guidelines: microarray analysis for chromosome abnormalities in neoplastic disorders \(2013\)](#)

### Protocols

- Select 'Technical Standards and Protocols' from Home Page
- Links available to 2016 and 2013 ACMG technical standards and guidelines





# Cancer Genes

- Select 'Cancer Genes' from Home Page
- Somatic Mutated Genes from COSMIC Cancer Gene Census copied into table.
- Can also link out to COSMIC Cancer Gene Census.

**Somatically Mutated Genes**

The following list is based on the 2016 Sanger Centre Cancer Gene Census [↗](#).

Gene Symbol	Chromosome Band	Tumour Types	
SEPT5	22q11.21	AML	KMT2A
SEPT6	Xq24	AML	KMT2A
SEPT9	17q25	AML	KMT2A
ABI1	10p11.2	AML	KMT2A
ABL1	9q34.1	CML,ALL,T-ALL	BCR,ETV6,NUP214
ABL2	1q24-q25	AML	ETV6
ACKR3	2q37.3	lipoma	HMGA2

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# Submit an article

- Edit Wikipage directly
  - Must be a member
  - Read and understand creation tutorial
  - Use Wiki Markup and (if applicable) templates
    - Templates available for translocation review, disease review, fusion review, gene review
- Email notes with reference information to [cancergenomicsconsortiumwiki@gmail.com](mailto:cancergenomicsconsortiumwiki@gmail.com)
- Submit information using online form directly in website
  - Must include references



# Contacts

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