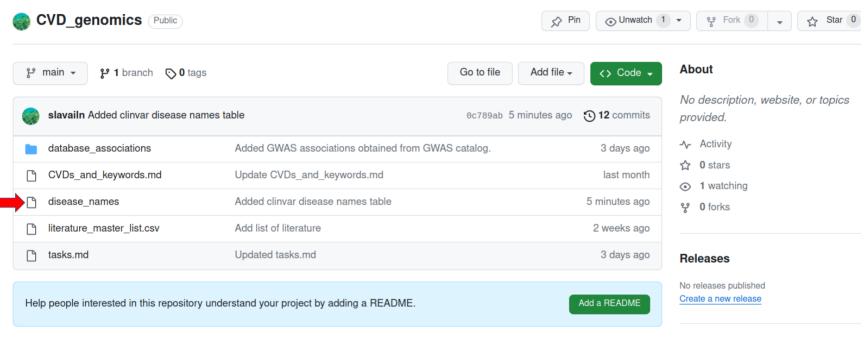
Obtaining CVD variants from ClinVar database

Standard operating procedure Nov 24, 2023

Download ClinVar disease names file from the project's github page:

Guthub: https://github.com/slavailn/CVD genomics



Packages

Open the disease names file and search it for the term of interest, for example "hyperlididemia"

```
29227 Hyperleucinemia Human Phenotype Ontology
                                                   C0268576
                                                                  HP:0010911
                                                                                         16 Feb 2016
                                                                                                        Finding
                    MONDO C1855928
29228 Hyperlexia
                                           MONDO:0009386
                                                        238350 16 Feb 2016
                                                                                 Disease
29229 Hyperlipidemia Human Phenotype Ontology
                                                                                                        Findina
                                                   C0020473
                                                                  HP:0003077
                                                                                         16 Feb 2016
29230 Hyperlipidemia MONDO
                          C0020473
                                                                                 Findina
                                           MONDO:0021187
                                                                  16 Feb 2016
29231 hyperlipidemia associated with hepatomegaly
                                                                                 18 Feb 2020
                                                                                                Finding
Hyperlipidemia due to hepatic triglyceride lipase deficiency
                                                                  MONDO C3151466
                                                                                         MONDO:0013533 614025 19 Apr 2022
                                                                                                                               Disease
29233 Hyperlipidemia, combined, 1
                                   MONDO C1865289
                                                          MONDO:0011237
                                                                         602491 16 Feb 2016
                                                                                                Disease
29234 Hyperlipidemia, combined, 2
                                   MONDO
                                          C1858308
                                                          MONDO:0011470
                                                                         604499 16 Feb 2016
                                                                                                Disease
29235 Hyperlipidemia, familial combined, LPL related MONDO C0020474
                                                                          MONDO:0007759
                                                                                        144250 15 Jan 2021
                                                                                                                Disease
29236 Hyperlipidemia, familial combined, susceptibility to
                                                          NCBI curation C4016424
                                                                                                        28 Feb 2020
                                                                                                                       Disease
29237 Hyperlipoproteinemia
                           MONDO C0020476
                                                  MONDO:0037748
                                                                         16 Feb 2016
                                                                                         Disease
                                                          C0020476
29238 Hyperlipoproteinemia Human Phenotype Ontology
                                                                                                16 Feb 2016
                                                                         HP:0010980
                                                                                                                Disease
29239 Hyperlipoproteinemia due to APOE1
                                           NCBI curation
                                                                                 07 Sep 2023
                                                                                                Disease
29240 Hyperlipoproteinemia type IV
                                   NCBI curation C0020480
                                                                         144600 22 Apr 2020
                                                                                                Disease
29241 Hyperlipoproteinemia, type 1D
                                   MONDO C4014767
                                                          MONDO:0014412
                                                                         615947 19 Apr 2022
                                                                                                Disease
29242 Hyperlipoproteinemia type I
                                           C0023817
                                                                  238600 16 Feb 2016
                                                                                         Disease
```

This step will give us an idea which relevant conditions are present in the database and which terms to use which searching ClinVar

Use the relevant terms found in the disease names files to search ClinVar database https://www.ncbi.nlm.nih.gov/clinvar/ as shown on the screenshot. Here we are searchin phenotype/disease field





Clinical

Announcing changes to support somatic variant classifications

We have delayed changes to the ClinVar XML files and our submission spreadsheet templates until January 2024; these changes will improve support for classifications of somatic variants in ClinVar. To help our users and submitters prepare for this change, we are providing a preview of submission spreadsheet templates, updated XSDs, sample XMLs, and supporting documentation on GitHub. Please share this information with your colleagues, including your bioinformatics team!

ClinVar is experiencing issues with search; some searches are failing and you may get inconsistent results at different times. We are working to get this resolved as quickly as possible. We apologize for the inconvenience, and we appreciate your patience.

significance Conflicting interpretations (17) Benign (23) Likely benign (14) Uncertain significance (45) Likely pathogenic (11) Pathogenic (20) Types of conflicts P/LP vs LB/B (2) P/LP vs VUS (8) VUS vs LB/B (11)

Search results

<u>Display options</u> ▼ <u>Sort by Location</u> ▼ <u>Download</u> ▼		Items: 1 to 100 of 115		<< First < Prev Page 1 of 2 Next > L		
	Variation Location	Gene(s)	Protein change	Condition(s)	Clinical significance (Last reviewed)	Review status
1.	NM_000157.4(GBA1):c.1093G>A (p.Gl u365Lys) GRCh37: Chr1:155206167 GRCh38: Chr1:155236376	GBA1, LOC106627981	E365K, E278K, E316K	not provided, not specified, Gaucher disease, Parkinson disease, late-	Benign/Likely benign; risk factor (Oct 1, 2023)	criteria provided, multiple submitters, no conflicts

Select only pathogenic and likely pathogenic variants

Clinical clear significance

Conflicting interpretations (0)

Benign (0)

Likely benign (0)

Uncertain significance (0)

Likely

pathogenic (5)

Pathogenic (10)

Molecular consequen...

Frameshift (2)

Missense (9)

Nonsense (2)

Splice site (0)

ncRNA (1)

Near gene (0)

Search results

Display options - Sort by Location - Download - ams: 15

Filters activated: Pathogenic, Likely pathogenic. Clear all to show 26 items.

The following term was not found in ClinVar: clinsig established risk allele[Properties].

Variation <i>Location</i>		Gene(s)	Protein change	Condition(s)	Clinical significance (Last reviewed)	
1.	NM_000384.3(APOB):c.2249del (p.Met75 Ofs) GRCh37: Chr2:21247992 GRCh38: Chr2:21025120	<u>APOB</u>	M750fs	Early-onset coronary artery disease	Likely pathogenic (Dec 29, 2022)	Feedback
2.	NM_000384.3(APOB):c.1260del (p.Glu42 0fs)	<u>APOB</u>	E420fs	Early-onset coronary artery disease	Pathogenic (May 11, 2023)	subr

Download the results

Clinical clear significance

Conflicting interpretations (0)

Benign (0)

Likely benign (0)

Uncertain significance (0)

↓ Likely pathogenic (5)

✓ Pathogenic (10)

Molecular consequen...

Frameshift (2)

Missense (9)

Nonsense (2)

Splice site (0)

ncRNA (1)

Search results

