Huntingtin interactors search in online databases – 2018/08/08

Different online databases which detail protein interaction partners were searched for huntingtin protein interaction partners.

Data detailing huntingtin interaction partners from 9 different databases was extracted and simplified – worksheets 1-15.

The information from each database was collated – worksheet 16.

Huntingtin protein interaction partners were ranked according to the number of databases they were found in as well as the number of different experiments detailing the interaction with huntingtin – worksheet 17.

Links to databases:

HINT	http://hint.yulab.org
Uniprot	https://www.uniprot.org
IntAct	https://www.ebi.ac.uk/intact/
BioGrid	https://thebiogrid.org
MINT	https://mint.bio.uniroma2.it
CORUM	http://mips.helmholtz-muenchen.de/corum/
DIP	http://dip.mbi.ucla.edu/dip/
ELM	http://elm.eu.org
STRING	https://string-db.org
Crapome	http://crapome.org

NB: all databases accessed July 2018

Index	Sheet name	Explanation of worksheet contents
1	1 HINT_HTT_binary_interactors	Huntingtin interactors listed in HINT database with info on: uniprot ID, protein name, alternative protein names, methods used for detection of interaction and relevant PubMed ID's for these experiments. Total number of experiments detailing the interaction are listed in far right column.
2	2 HINT_Methods_and_References	Ontobee methods definitions and PubMed information on accession IDs detailed in "1 HINT_HTT_binary_interactors"
3	3 HINT_Interactors_UniprotInf	Information for each interactor detailed in "1 HINT_HTT_binary_interactors" obtained from Uniprot including Entry, Entry name, Protein names, Gene names, Organism, Protein Length, Protein Sequence, Cross-reference (GeneID) and No. expts interaction detected. Interactors are ranked according to No. expts interaction detected.
4	4 HINT_Comparison_w_Crapome	Uniprot entries identfied in "1 HINT_HTT_binary_interactors" compared to Crapome for likelihood of being non-specific interactors
5	5 Uniprot_HTT_Interactors	Huntingtin interactors listed in UniProt database with info on: Protein, Entry, #Exp., IntAct and Notes. Total number of experiments detailing the interaction are listed in far right column.
6	6 Uniprot_Comparison_w_Crapome	Uniprot entries identified in "5 Uniprot_HTT_Interactors" compared to Crapome for likelihood of being non-specific interactors
7	7 IntAct_HTT_Interactors	Huntingtin interactors listed in IntAct with methods used for detection of interaction and relevant pubmed ID's for these experiments.
8	8 IntAct_Simple_HTT_Interactors	Huntingtin interactors listed with methods used for detection of interaction and relevant pubmed ID's for these experiments. Total number of experiments detailing the interaction are listed in column K and then interactors are ranked by number of reported interaction experiments in column P. These interactors are compared with the Crapome in the table on the far right.
9	9 BioGrid_HTT_Interactors	Huntingtin interactors listed in BioGrid with methods used for detection of interaction and relevant pubmed ID's for these experiments.
10	10 BioGrid_Simple_Interactors	Huntingtin interactors listed with methods used for detection of interaction and relevant pubmed ID's for these experiments. Total number of experiments detailing the interaction are listed in column M and then interactors are ranked by number of reported interaction experiments in column P. These interactors are compared with the Crapome in the table on the far right.
11	11 MINT_HTT_Interactors	Huntingtin interactors listed in MINT database with available information.
12	12 CORUM_HTT_Interactors	Huntingtin interactors listed in CORUM database with available information.
13	13 DIP_HTT_Interactors	Huntingtin interactors listed in DIP database with available information.
14	14 ELM_HTT_Interactors	Huntingtin interactors listed in ELM database with available information.
15	15 STRING_HTT_Interactors	Huntingtin interactors listed in STRING database with available information.
16	16 Combined_database_analysis	All data from each source detailed with Protein, Entry, Organism, # Expts describing interaction, Crapome # Expts (found/total), Info Source and Complex Info. NB: proteins which are found in multiple organisms are highlighted with red text. Multiple entries of the same protein are highlighted with the same colour. First table organised according to "Info Source" i.e. database. Second table organised according to protein name. Third table removed proteins only found in non-human organisms. Fourth table organised by uniprot ID and proteins only found in 1 expt are removed.
17	17 Top_scoring_interactors	First table shows interacting proteins ranked according to the number of databases they are found in. Second table shows interacting proteins according to number of expts. describing interaction.