ReadMe First!

Version: 1.1

Release date: 12 October 2013

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This ReadMe file is intended to provide small working examples of our synthetic lethality database features. The information in this file strive to be simple and friendly to help users quickly learn the usage of workings of SL database, with a little reading and hands on experience. Suggestions, corrections and new examples are welcome.

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I. HOW TO START THE INTERFACE

1. Go to the link
   http://www.ntu.edu.sg/home/zhengjie/software/Syn-Lethality/
2. Click on “Download the SL Database ".
3. Save the executable file to local machine
4. Double Click on the downloaded file “SL_DB.jar”.
5. View through Interface for desired SL Pairs.

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II. SOFTWARE/PLUG-IN DOWNLOADS

Java 7.0 or later
http://www.java.com/en/download/index.jsp

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III.USAGE

The java executable file can be used to search for the Synthetic Lethal gene pairs. Searching in our database can be divided in the following categories:

(a) Simple Search: The user is required to provide abbreviations for gene names. For example for epidermal growth factor receptor we just need to write EGFR and

for Cyclin-dependent kinase we need to write just CDK in the search field. This helps the user in search for the SL gene pair information without typing long gene names.

(b) Batch Search: User can directly copy and paste names of various gene (separated by space) in each fields. This helps find information simultaneously for various synthetic lethal gene pairs. For example user can enter “TAK1 GATA2 STK33 CDK4 ATR VDAC1 DNA Polγ PINK1 DHFR” and “BRCA1 BRCA2 EGFR KRAS MLH1 MSH2” in each SL Gene search field.

(c) Smart Search: Users have flexibility of searching SL gene pairs based on the Boolean logical operators by selecting logical AND and OR operators from the drop down menu. This helps in analysing various combinations of SL gene pairs. If the user enters “PARP1” and “BRCA1” in each field, then the query result will display a row containing all the information for this pair, if they exist in the database. However, if the user enters “PARP1” Or “BRCA1”, then the query result will display all the information where either SL gene is PARP1 or SL target gene is BRCA1.

(d) Genetic Alteration Search: The interface of our database provides user flexibility to screen the SL pairs based on various types the gene alteration types. The gene alteration types captured in our database includes overexpression, mutation, activation, inactivation, deficiency etc. The genetic alteration parameters can be combined with all the above mentioned four types of search.
(e) Literature Information: The search result for SL gene pairs contains related literature web link. This further facilitates user find more insights in SL Pair information.

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IV. TECHNICAL SUPPORT
If you need technical assistance, you may contact us here :

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