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**INSTALLATION GUIDE**

1. Download R (<https://www.r-project.org/>) and RStudio <https://rstudio.com/products/rstudio/download/>
2. Download the OmicsVolcano software from GitHub repository as zip folder (*Clone or Download*; *Download ZIP*). Unzip folder into a directory of your choice. For example, to the desktop.
3. Open RStudio.
4. Select R script with App prefix (File – Open File .. – App.r)
5. To run software click Run App  The software will appear as a webpage in a default browser.
6. “File” tab enables to download input file. Input file should contain five columns in exact order with the exact column names: ID GeneSymbol Description log2FC AdjPValue

[“Download demo file to local PC...](http://127.0.0.1:6918/data/mm_input.txt)” option provides example file.

“Remove Duplicates” enables to check if file contain s duplicated gene names in the second column, and gives a numeric extension 1,2,3.. to the genes names that are duplicated.

1. “Explore” tab enables to select functionality applied to the visualized volcano plot.
2. “Plot” tab enables to explore plot and visualized any gene labels. Significance can be selected on the right-side panel by clicking symbol .

Holding shift and right click of the mouse enable persistency of selected gene labels on the plot. Plot can be downloaded from the plot’s “Download plot” icon in svg format. Selected genes information is reflected in the table below the plot with tab name “RelatedInfo”. Also, significant results are shown in Signific tab.

1. “Custom Gene List” tab enable to visualize a list of genes of interest by providing own list of genes of interest. Significance and Custom Gene List can be selected on the right-side panel by clicking symbol . Information of selected gene is reflected in the table below the plot. Plot can be downloaded from the plot’s “Download plot” icon in svg format. Related information of selected genes is reflected in the table below.
2. “Mitochondrial Process” tab enables highlight of genes related to selected mitochondrial process only for human or mouse organisms. Gene labels are selected separately.

**ABOUT**

**OmicsVolcano** is visualization software that enables to explore interactively # volcano plot for presence of mitochondrial localized genes or proteins

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**USED PACKAGES**

The following is a list of packages used by OmicsVolcano Version 1.0:

- R version 3.6.1 (2019-07-05)

- "dplyr" v.0.8.3

- "shiny" v.1.4.0

- "shinydashboard" v.0.7.1

- "shinyWidgets" v.0.5.1

- "plotly" v.4.9.1

- "DT" v.0.11

- "ggplot2" v.3.2.1

- "svglite" v.1.2.2

- "stringr" v.1.4.0

- "crosstalk" v.1.0.0

- "config" v.0.3

- "shinydashboardPlus" v.0.7.0

- "shinythemes" v.1.1.2

- "shinyjs" v.1.1

**CONTACT INFORMATION**

Author:

Irina Kuznetsova

email: irina.kuznetsova@perkins.org.au

Supervisors:

Artur Lugmayr

email: [lartur@acm.org](mailto:lartur@acm.org)

Aleksandra Filipovska

email: [aleksandra.filipovska@uwa.edu.au](mailto:aleksandra.filipovska@uwa.edu.au)

Oliver Rackham

email: oliver.rackham@perkins.org.au

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