

## Changes and Bug Fixes since Last 4.3.1 Stable Release Version

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### Visualization tools:

- 1) Fixed a bug in NMF plug-in where the size of heatmap margin was not correctly assigned.

### Analysis Tools:

- 2) Updated the KEGG pathway gene list with the KEGG.db package and modified code to change the hyperlinks of KEGG pathways to the KEGG website instead of the CGAP website.
- 3) Modified the name of 'lassoed' to 'lasso' in the HTML output of lasso logistic regression.
- 4) The LINPACK option in svd() used by survival risk prediction was removed.
- 5) A false warning message "Cox proportional hazards model estimation using the principal components of the full training arrays can not be completed" was removed from the HTML output in the survival risk prediction for a successful run.
- 6) Fixed a bug where special characters were present in certain Gene Identifier columns.
- 7) Fixed a bug where "Symbol.txt" did not exist in the "Annotations" folder.
- 8) Modified the dialog form for the "Create genelist correlated with a target gene" utility.

### Importing, Filtering, Normalization and Annotation:

- 9) Added an option of using the "org.Xx.eg.db" package for annotation.
- 10) Fixed a bug where Broad C6 gene list files were displayed when user chose User Gene List in gene-subsetting.
- 11) Modified GEO importer to allow the user to use the annotation file downloaded from the GEO website for annotation. Also modified code in GEO importer to ask users if they want to apply log2 transformation on certain data types.
- 12) Fixed a VB run-time error '5' for the "Cancel" button in Data import wizard.
- 13) Modified C++ code to fix a hyperlink problem from the gene annotation worksheet that could cause Excel to crash.
- 14) Modified Illumina expression data importer to allow importing data in the absence of STDERR/STDEV columns.

### Installation, Registration and Support Links:

- 15) Modified code to improve the encryption of the license key file.
- 16) Fixed a bug in activating BRB-ArrayTools where a license key did not match information in the registration data base.
- 17) Modified code to automatically remove KEGG genelist files for commercial or sixty-day users.

### CGHTools:

- 18) Updated the KEGG gene list file.

19) Modified code to remove the KEGG gene list file for Commercial and sixty-day users.