

IsoGeneGUI

April 20, 2011

IsoGeneGUIHelp

IsoGeneGUI Help

Description

Function to for opening the IsoGeneGUI help.

Usage

```
IsoGeneGUIHelp()
```

Details

To run the package, we use the function: IsoGeneGUI().

Author(s)

Author: Setia Pramana Maintainer: Setia Pramana <setia.pramana@uhasselt.be>

Examples

```
## Not run:  
library(IsoGeneGUI)  
IsoGeneGUIHelp()  
  
## End(Not run)
```

IsoGeneGUI-package *IsoGeneGUI Graphical User Interface for the IsoGene package*

Description

The IsoGene Graphical User Interface (IsoGene-GUI) is a user friendly interface of the IsoGene package which is aimed to identify for genes with a monotonic trend in the expression levels with respect to the increasing doses using several test statistics: global likelihood ratio test (E2), Bartholomew 1961, Barlow et al. 1972 and Robertson et al. 1988), Williams (1971, 1972), Marcus (1976), the M (Hu et al. 2005) and the modified M (Lin et al. 2007).

The p-values of the global likelihood ratio test (E2) are obtained using the exact distribution and permutation. The other four test statistics are obtained using permutation .

Several p-values adjustment are provided: Bonferroni, Holm (1979), Hochberg (1988), and Sidak procedures for controlling the family-wise Type I error rate (FWER), and BH (Benjamini and Hochberg 1995) and BY (Benjamini and Yekutieli 2001) procedures are used for controlling the FDR.

Details

The IsoGene Graphical User Interface (IsoGene-GUI) is a user friendly interface of the IsoGene package.

Author(s)

Author: Setia Pramana

Maintainer: Setia Pramana <setia.pramana@uhasselt.be>

References

- Barlow, R., Bartholomew, D., Bremner, M. and Brunk, H. (1972) Statistical Inference Under Order Restriction. New York: Wiley.
- Bartholomew, D. (1961) Ordered tests in the analysis of variance. *Biometrika*, 48, 325- 332.
- Benjamini, Y. and Yekutieli, D. (2001) The control of the false discovery rate in multiple testing under dependency. *ANN STAT*, 29 (4), 1165-1188.
- Hu, J., Kapoor, M., Zhang, W., Hamilton, S. and Coombes, K. (2005) Analysis of dose response effects on gene expression data with comparison of two microarray platforms. *Bioinformatics*, 21(17), 3524-3529.
- Lin, D., Shkedy, Z., Yekutieli, D., Burzykowski, T., Gohlmann, H., De Bondt, A., Perera, T., Geerts, T. and Bijnens, L. (2007) Testing for trends in dose-response microarray experiments: A comparison of several testing procedures, multiplicity and resampling- based inference. *Statistical Applications in Genetics and Molecular Biology*, 6(1), Article 26.
- Marcus, R. (1976) The powers of some tests of the quality of normal means against an ordered alternative. *Biometrika*, 63, 177-83.
- Robertson, T., Wright, F. and Dykstra, R. (1988) Order Restricted Statistical Inference. Wiley.
- S. Holm (1979). A simple sequentially rejective multiple test procedure. *Scand. J. Statist.*. Vol. 6: 65-70.
- Y. Benjamini and Y. Hochberg (1995). Controlling the false discovery rate: a practical and powerful approach to multiple testing. *J. R. Statist. Soc. B*. Vol. 57: 289-300.

Y. Hochberg (1988). A sharper Bonferroni procedure for multiple tests of significance, Biometrika. Vol. 75: 800-802.

Williams, D. (1971) A test for differences between treatment means when several dose levels are compared with a zero dose control. Biometrics, 27, 103-117.

Williams, D. (1972) The comparison of several dose levels with a zero dose control. Bio-metrics, 28, 519-531.

Examples

```
## Not run:  
library(IsoGeneGUI)  
IsoGeneGUI()  
  
## End(Not run)
```

IsoGeneGUI

IsoGeneGUI

Description

This function will load the IsoGeneGUI package.

Usage

```
IsoGeneGUI()
```

Details

To run the package, we use the function: IsoGeneGUI().

Author(s)

Author: Setia Pramana

Maintainer: Setia Pramana <setia.pramana@uhasselt.be>

Examples

```
## Not run:  
library(IsoGeneGUI)  
IsoGeneGUI()  
  
## End(Not run)
```

Index

*Topic documentation

[IsoGeneGUI](#), [3](#)

[IsoGeneGUIHelp](#), [1](#)

*Topic package

[IsoGeneGUI-package](#), [2](#)

[IsoGeneGUI](#), [3](#)

[IsoGeneGUI-package](#), [2](#)

[IsoGeneGUIHelp](#), [1](#)