

sGEA-beta (written by P. Niethammer)

Input:

- 1) Statistic gene background for Fisher's exact test (default=25000).
- 2) EITHER two thresholded sGCA sheets (GCA_heatmap) OR one gene marker list & one thresholded sGCA sheet.

Output:

- 1) Excel sheet:
 - a) Association: associated entities (markers with IPs OR Ips with IPs).
 - b) Pval: Fisher's exact test.
 - c) EnrichedGenes: comma separated list of enriched genes (e.g., can be directly pasted into Metascape for further functional profiling).

Citations:

Zclmarkerlist.xlsx

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Mengmeng Jiang†, Yanyu Xiao†, Weigao E†, Lifeng Ma†, Jingjing Wang, Haide Chen, Ce Gao, Yuan Liao, Qile Guo, Jinrong Peng*, Xiaoping Han* and Guoji Guo*. **Characterization of the Zebrafish Cell Landscape at Single-Cell Resolution. *Frontiers in Cell and Developmental Biology***, 2021; 9: 743421. DOI: [10.3389/fcell.2021.743421](https://doi.org/10.3389/fcell.2021.743421).

External functions

Timothy Olsen (2023). Centered colormap generator (<https://www.mathworks.com/matlabcentral/fileexchange/70530-centered-colormap-generator>), MATLAB Central File Exchange. Retrieved March 9, 2023.

Stephen23 (2023). Date Vector/Number to ISO 8601 Date String (<https://www.mathworks.com/matlabcentral/fileexchange/34095-date-vector-number-to-iso-8601-date-string>), MATLAB Central File Exchange. Retrieved March 9, 2023.