

## Supplementary material

The Ito core data has 797 proteins and 1560 interactions.

The functional segregation ( $m^\lambda(d) / m^\lambda_{rand}$ ) for Ito core data, corresponding to Figure 2 in manuscript, is shown below.

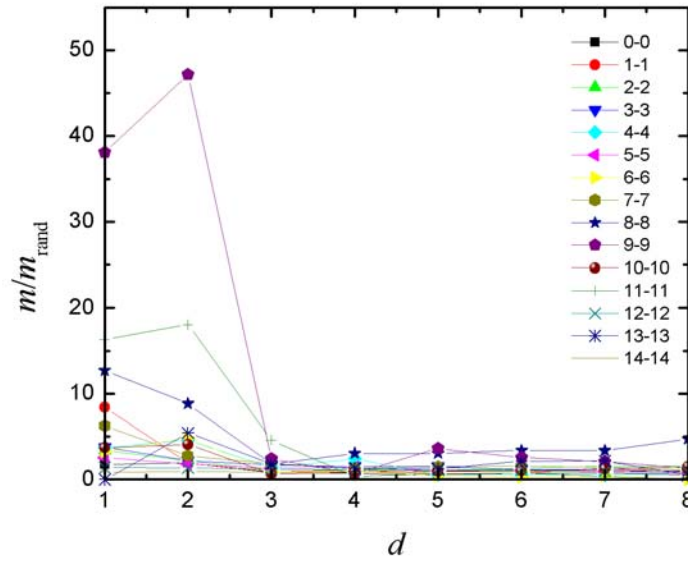


Fig. 1: Functional segregation of Ito core data. Each curve corresponds to a different functional class.

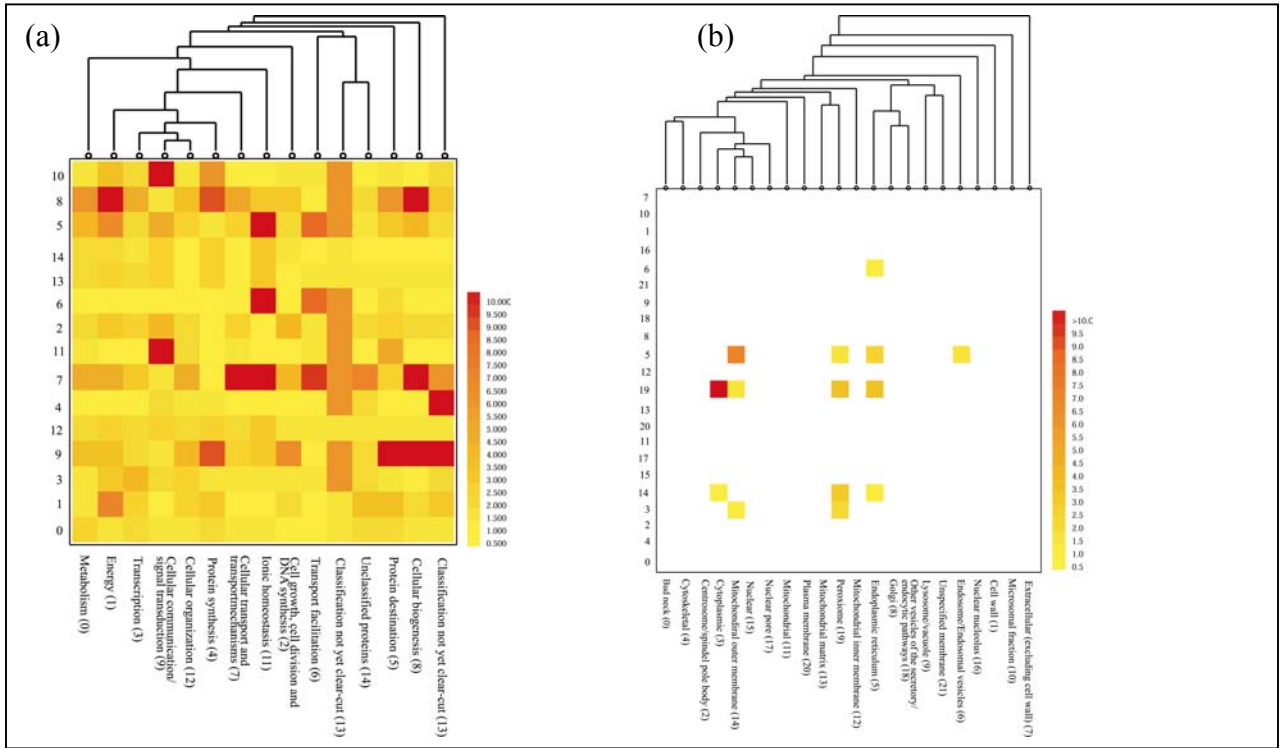


Fig. 2: Hierarchical tree and the segregation matrices of the Ito core data based on (a) functional class and (b) subcellular localization. The details of the distance metric are provided in the manuscript.