Module-detection approaches for the integration of multilevel omics data highlight the comprehensive response of *Aspergillus fumigatus* to caspofungin.

Conrad T*, Kniemeyer O, Henkel SG, Krüger T, Mattern DJ, Valiante V, Guthke R, Jacobsen ID, Brakhage AA, Vlaic S, Linde J (2018) Module-detection approaches for the integration of multilevel omics data highlight the comprehensive response of *Aspergillus fumigatus* to caspofungin. *BMC Syst Biol* 12(1), 88.

Details

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Abstract

Omics data provide deep insights into overall biological processes of organisms. However, integration of data from different molecular levels such as transcriptomics and proteomics, still remains challenging. Analyzing lists of differentially abundant molecules from diverse molecular levels often results in a small overlap mainly due to different regulatory mechanisms, temporal scales, and/or inherent properties of measurement methods. Module-detecting algorithms identifying sets of closely related proteins from protein-protein interaction networks (PPINs) are

promising approaches for a better data integration.

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