

عنوان مقاله:

Exploring Transcriptional Relationships Implicated in Autism and Inflammatory Bowel Diseases Using Systems Biology Approaches

محل انتشار:

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خلاصه مقاله:

Introduction: Understanding the association among various disorders has remarkably improved their diagnosis and therapies. It has been observed that autism and inflammatory bowel diseases cause a sort of inflammation. Exploring the relationship between them will lead to discovering important involved genes and in turn will eventually help discover any possible common therapeutic protocols. The aim of the present study was to determine the correlation between autism spectrum disorders and inflammatory bowel diseases. Materials and Methods: The common genes associated with autism spectrum disorders and inflammatory bowel diseases were retrieved from DisGeNET, SFARI databases and were subjected to an in silico data analysis framework to explore predictive genes and the related pathways. Results: Eleven genes including HLA-DRB1, MTHFR, PON1, IL6, MTOR, SETD2, GSTM1, APC, IFNG, SERPINE1, and MAPK1 regulated by YY1 and IRF1 transcription factors were characterized as discriminating molecules which by further screening were enriched in pathways mostly involved in neutrophil apoptosis, neutrophil homeostasis, chemokine biosynthesis and the regulation of immune system response. Conclusions: According to findings it can be stated that the identified common genes were associated with a wide range of pathogenic mechanisms

کلمات کلیدی:

autism spectrum disorders, Inflammatory bowel diseases, Disease-Associated Genes, Network analysis

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