The protein-protein interaction network of first episode psychosis and schizophrenia reveals possible trigger factors and new drug targets among intracellular signal transduction pathways and neurotoxicity processes.

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A picture containing chart

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**ESF Figure 1**. Heatmap (top-10) of enriched GO cellular component terms accumulated in the differently expressed proteins in first episode psychosis and schizophrenia.

Table

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**ESF Figure 2**. Heatmap (top-10) of enriched Reactome terms over-represented in the differently expressed proteins in first episode psychosis and schizophrenia.

Table

Description automatically generated with medium confidence

**ESF Figure 3**. Heatmap (top-10) of enriched Panther Pathways that were over-represented in the differently expressed proteins in first episode psychosis and schizophrenia.

A picture containing graphical user interface

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**ESF Figure 4**. Heatmap (top-10) of enriched WikiPathways that were over-represented in the differently expressed proteins in first episode psychosis and schizophrenia.

![A picture containing fireworks, outdoor object

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**ESF Figure 5**. Protein-protein interaction network (built with OmicsNet and IntAct) of first episode psychosis and schizophrenia. The top-3 transcriptional factors are shown as blue spots (SP1, NFκB1, and RELA). Proteins in green and bundles in pink.

Chart, scatter chart

Description automatically generated

**ESF Figure 6**. Protein-protein interaction network (built with inBio Discover) of differently expressed proteins in first episode psychosis and schizophrenia. Shown are 4 top annotations that are over-represented in the gene list, namely: red color: immune system disease (DOID:2914); blue color: inflammatory bowel disease (DOID:0050589); green color: intestinal disease (DOID:5295); yellow color: autoimmune disease (DOID:417)

Diagram

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**ESF Figure 7**. Differently expressed proteins in the extended protein-protein interaction network that accumulated in intestinal disease (DOID:5295).

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**ESF Figure 8.** GO functional enrichment analysis of all differently expressed proteins in first episode psychosis and schizophrenia using R package ClusterProfiler. Only annotated GO term leaves are shown in this figure. The x-axis shows the gene ratio and the y-axis the annotated GO biological terms. The size of the dots is proportional to the gene number; p-values of all GO terms are colored as indicated in the figure.