**S5 Table. miRNA changes in psychiatric disorders from other studies in comparison with our data**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **miRNA** | **Psychiatric disease** | **Resourse** | **Modeling methods** | **Brain area** | **Assay technique** | | **Main Conclusion** | **References** |
| miR-148b-5p ↑ | AD | Blood samples |  |  | | High-throughput sequencing | miR-148b-5p up-regulation in AD | 1 |
| SCZ | Post-mortem brain |  | PFC | | qRT-PCR | miR-148b up-regulation in SCZ | 2 |
| BD |  | miR-148b down-regulation in BD |
| ASD | Human |  | Cerebellar cortex | | Multiplex qPCR | miR-148b down-regulation in ASD | 3 |
| ASD | Human |  | Lymphoblastoid cell lines | | Microarray | miR-148b down-regulation in ASD | 4 |
| Depressed Suicide | Postmortem brain |  | PFC | | Multiplex RT-PCR plate | hsa-miR-148b down-regulation in in depressed suicide | 5 |
| miR-879-5p ↑ | Depression-like behavior | Mice | CUMS | Hippocampus | | Microarray | miR-879-5p up-regulation in depression model vs control | 6 |
| miR-144-3p ↑ | Depression-like behavior | Mice | CUMS | Hippocampus | | Microarray | miR-144-3p down-regulation depression model vs control | 6 |
| miR-540-5p ↑ | Depression-like behavior | Mice | CUMS | Hippocampus | | Microarray | miR-540-5p down-regulation im depression model vs control | 6 |
| mmiR-582-5p ↑ | Depression-like behavior | Mice | CUMS | Hippocampus | | Microarray | miR-582-5p up-regulation in depression model vs control | 6 |
| miR-210-5p ↑ | SCZ | Post-mortem brain |  | PFC | | qRT-PCR | miR-210 down-regulation in Schizophrenia | 2 |
| BD |  | miR-210 down-regulation in Bipolar Disorder |
| Depression-like behavior | Rat | LH | Frontal cortex | | TLDA array | miR-210 up-regulation in LH vs Controls | 7 |
| Depression-like behavior | Mice | CUMS | Hippocampus | | Microarray | miR-210-5p down-regulation in MDD vs control | 6 |
| miR-3103-5p ↑ | Depression-like behavior | Mice | CUMS | Hippocampus | | Microarray | miR-3103-5p up-regulation in depression model vs control | 6 |
| miR-15b-5p ↑ | Depression-like behavior | Rat | CUMS | Hippocampus | | Microarray | miR-15b down-regulation in depression model vs control | 2 |
| miR-15b-5p ↑ | SCZ | Human |  | PFC | | qRT-PCR | miR-15b down-regulation in SZ patients | 2 |
| miR-15b-5p ↑ | Depression-like behavior | Mice | CUMS | Hippocampus | | Microarray | miR-15b-5p up-regulation in depression model vs control | 6 |
| miR-15b-5p ↑ | SCZ | Human |  | Superior temporal gyrus | | Microarray, qRT-PCR | miR-15b up-regulation in SZ patients vs control | 8 |
| miR-16-1-3p ↑ |  |
| miR-16-1-3p ↑ | SCZ | Human |  | PFC | | TLDA array | miR-16 up-regulation in SZ patients vs control | 9 |
| Depression-like behavior | Rat | MD | Hippocampus | | qRT-PCR | miR-16 up-regulation in depression model vs control | 10 |
| Depression-like behavior | Mice | CUMS | Hippocampus | | Microarray | miR-16 up-regulation in depression model vs control | 6 |
| let-7a-1-3p ↑ | Depression-like behavior | Mice | immobilization stress | Hippocampal CA1 | | Spotted array | Whether under acute or chronic stress mmu-let-7a-1 was down | 11 |
| Rat | MD and CUMS | Hippocampus | | qRT-PCR | Higher Let-7a level in the hippocampus than control rats | 10 |
| Mice | CUMS | Hippocampus | | Microarray | Llet-7a up-regulation in depression model vs control | 6 |
| miR-470-5p ↑ | Depression-like behavior | Mice | CUMS | Hippocampus | | Microarray | miR-470-5p up-regulation in depression model vs control | 6 |
| miR-218-2-3p ↑ | Depression-like behavior | Mice | CUMS | Hippocampus | | Microarray | miR-218-2-3p up-regulation in depression model vs control | 6 |
| miR-190-5p ↑ | BD | Human |  | PFC | | qRT-PCR | miR-190b-5p down-regulation in BD patients | 2 |
| Depressed Suicide | Postmortem brain |  | PFC | | Multiplex RT-PCR plate | hsa-miR-190 down-regulation in depressed suicide | 5 |
|  |  |  |  |  | |  |  |  |

Abbreviations: ↑ indicates miRNA is up-regulation in the tissue of PFC from depression-like mice versus control mice, whereas ↓ represent down-regulation. AD, Alzheimer’s disease; SCZ, Schizophrenia; BD, Bipolar Disorder; ASD, Autism Spectrum Disorders; CUMS, Chronic unpredicted mild stress; MD, Maternal deprivation; LH, Learned helplessness, PFC, Prefrontal cortex