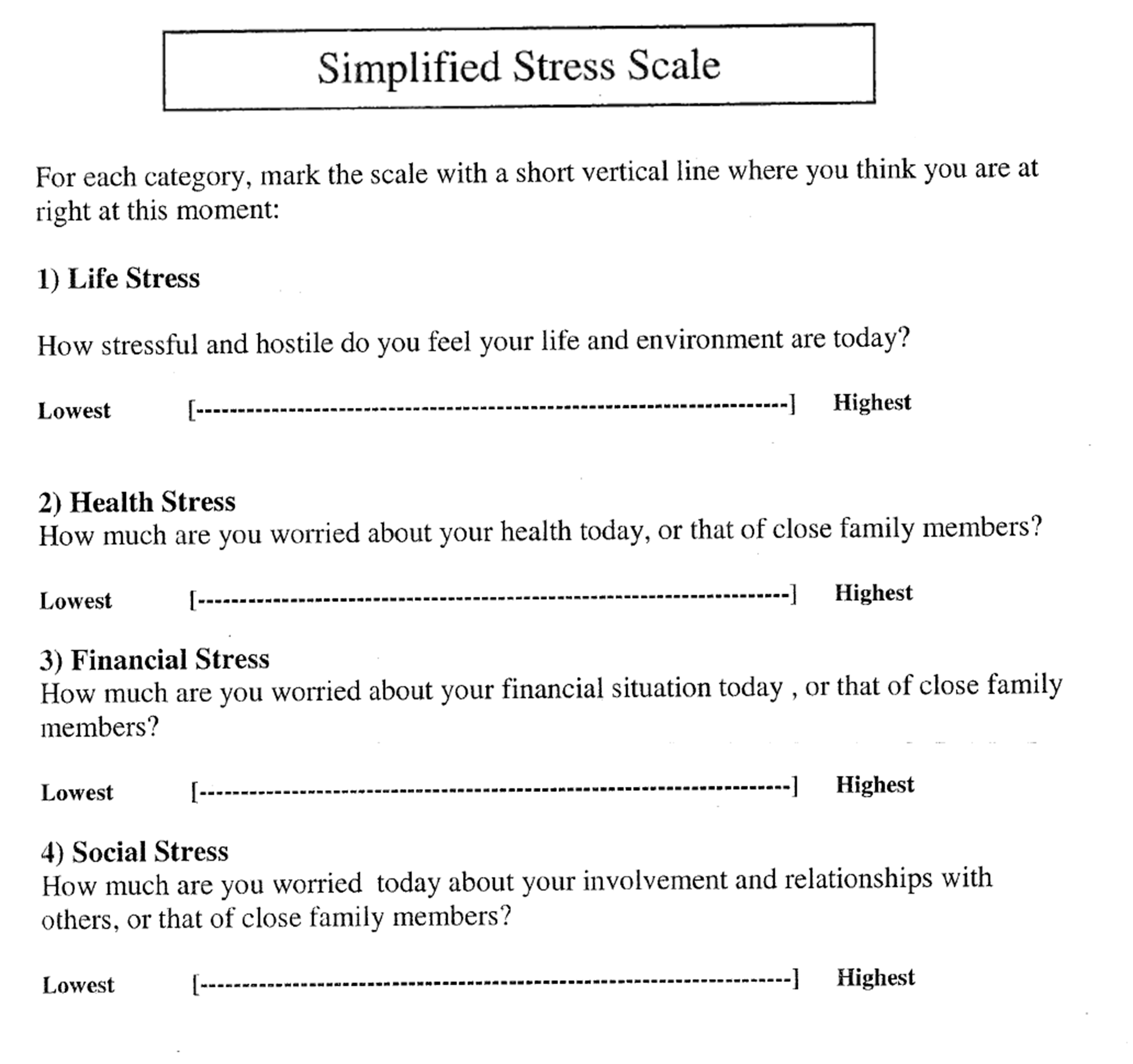
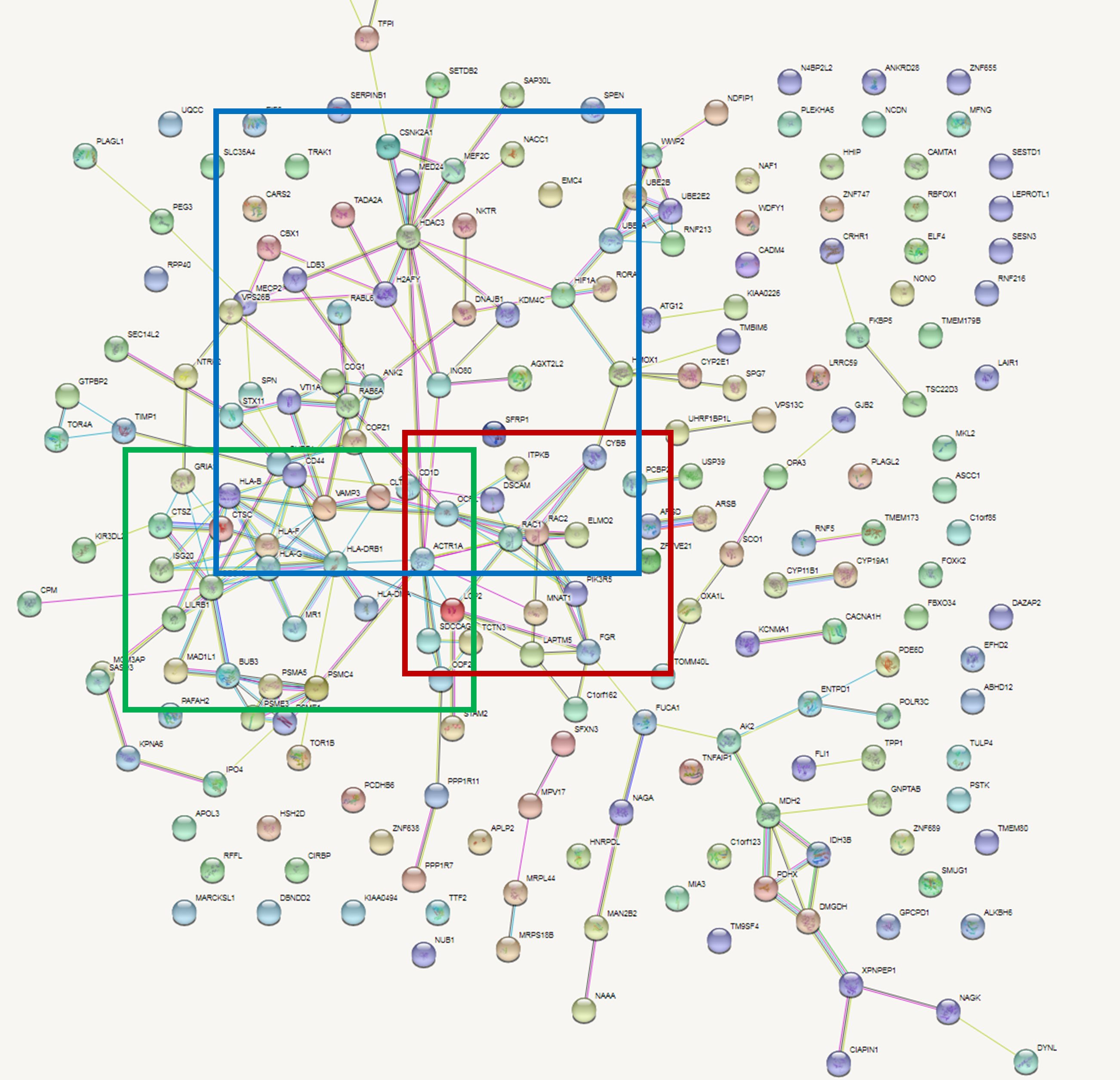
**Supplementary Information**

**Figure S1: Simplified Stress Scale** (VAS 0-100)



**Figure S2:** [STRING Interaction Network](http://version10.5.string-db.org/newstring_cgi/show_network_section.pl?limit=0&targetmode=proteins&caller_identity=gene_cards&network_flavor=evidence&identifiers=9606.ENSP00000414303%0d%0a9606.ENSP00000397297%0d%0a9606.ENSP00000304669%0d%0a9606.ENSP00000339007%0d%0a9606.ENSP00000353483%0d%0a9606.ENSP00000260227%0d%0a9606.ENSP00000401303%0d%0a9606.ENSP00000340698%0d%0a9606.ENSP00000263967%0d%0a9606.ENSP00000265164%0d%0a9606.ENSP00000244007%0d%0a9606.ENSP00000269141%0d%0a9606.ENSP00000358525%0d%0a9606.ENSP00000274335%0d%0a9606.ENSP00000314458%0d%0a9606.ENSP00000178640%0d%0a9606.ENSP00000321209%0d%0a9606.ENSP00000250559%0d%0a9606.ENSP00000352157%0d%0a9606.ENSP00000264554%0d%0a9606.ENSP00000269305%0d%0a9606.ENSP00000348786%0d%0a9606.ENSP00000431418%0d%0a9606.ENSP00000356056%0d%0a9606.ENSP00000308938%0d%0a9606.ENSP00000364995%0d%0a) for nominally validated biomarkers for stress (n=220 genes, 232 probesets)

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**Table S2. Evidence for involvement in Stress for Top Predictive Biomarkers for Stress (from Figure 2) (n=41 genes, 42 probesets).** Red- increased in expression (I) in Stress, Blue- decreased in expression (D). DE- differential expression, AP-Absent/Present.

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Gene Symbol/ Gene Name** | **Probeset** | **Discovery** (Change) Method/Score  6pts | Prior human genetic evidence for Stress 2pts. | Prior human Brain expression evidence for Stress 4 pts | Prior human peripheral evidence for Stress | Prior Non-human genetic evidence for Stress 1pt. | Prior Non-human Brain expression evidence for Stress 2pts. | Prior Non-human peripheral evidence for Stress 1pt | **Prioritization Total CFG Score For Stress** | **Validation Anova p-value  6 pts** |
| **TL**  Telomere Lenght |  | (D) | **Epigenetic PTSD and Traumatic stress**  [1](#_ENREF_1) |  | (D) **Trauma and PTSD Leukocytes**  [2](#_ENREF_2)  (D) **Veteran’s Early Trauma, Stress** severity granulocytes  [3](#_ENREF_3) |  | (D)  mPFC **maternal Stress** [4](#_ENREF_4)  (D)  Meerkats pup Tail Skin **Early-life competiction** [5](#_ENREF_5) | (D) **PTSD-like Ratmodel**  Blood Leukocytes [6](#_ENREF_6) | 7 | NS |
|  |  |  |  |  |  |  |  |  |  |  |
| **FKBP5** FK506 Binding Protein 5 | 224856\_at | (D) DE/4 53.8 % | **PTSD**  [24](#_ENREF_24),[27](#_ENREF_27),[28](#_ENREF_28)  **Childhood Trauma** [29](#_ENREF_29),[30](#_ENREF_30)  **Psychological Stress**  [31](#_ENREF_31),[32](#_ENREF_32)  **PTSD**  [27](#_ENREF_27),[33](#_ENREF_33),[34](#_ENREF_34),[35](#_ENREF_35),[36](#_ENREF_36) | (D) PFC **PTSD** [37](#_ENREF_37) | (D)  PBMCs **Post-Deployment PTSD** [29](#_ENREF_29)  (I)  whole blood RNA **PTSD** [38](#_ENREF_38)  DE Blood **PTSD**  [27](#_ENREF_27)  (I) PBMC **PTSD**  [39](#_ENREF_39)  (D) Whole Blood **PTSD**  [40](#_ENREF_40)  (D) Venous Blood **PTSD**  [14](#_ENREF_14)  (I) Fasting Blood **PTSD**  [40](#_ENREF_40)  (D) PBMC **Psychological Stress**[41](#_ENREF_41)  (D) **Relaxation Response**  [42](#_ENREF_42)  (D) leukocytes **Social Isolation**  [43](#_ENREF_43)  (I) Blood **Psychotherapy** [44](#_ENREF_44) | **Stress** [45](#_ENREF_45) | (I) Hypothalamus **Stress** [46](#_ENREF_46)  (D) microglia **Stress** [47](#_ENREF_47)  (I) AMY **Stress** [48](#_ENREF_48)  (D) Cortex **PTSD** [49](#_ENREF_49)  (D)  PFC **Psychological Stress** [41](#_ENREF_41)  (I) Hippocampus **Stress**  [50](#_ENREF_50) | (I) Blood **Chronic Stress** [51](#_ENREF_51)  (I)  Blood (Females)  Stress[8](#_ENREF_8) | 16 | 1.22E-02/4 Nominal |
| **FKBP5** FK506 Binding Protein 5 | 224840\_at | (D) DE/2 41.5% | **PTSD**  [24](#_ENREF_24),[27](#_ENREF_27),[28](#_ENREF_28)  **Childhood Trauma** [29](#_ENREF_29),[30](#_ENREF_30)  **Psychological Stress**  [31](#_ENREF_31),[32](#_ENREF_32)  **PTSD**  [27](#_ENREF_27),[33](#_ENREF_33),[34](#_ENREF_34),[35](#_ENREF_35),[36](#_ENREF_36) | (D) PFC **PTSD** [37](#_ENREF_37) | (D)  PBMCs **Post-Deployment PTSD**  [29](#_ENREF_29)  (I)  whole blood RNA **PTSD**  [38](#_ENREF_38)  DE Blood **PTSD**  [27](#_ENREF_27)  (I) PBMC **PTSD**  [39](#_ENREF_39)  (D) Whole Blood **PTSD**  [40](#_ENREF_40)  (D) Venous Blood **PTSD**  [14](#_ENREF_14)  (I) Fasting Blood **PTSD**  [40](#_ENREF_40)  (D) PBMC **Psychological Stress**[41](#_ENREF_41)  (D) **Relaxation Response** [42](#_ENREF_42)  (D) leukocytes **Social Isolation** [43](#_ENREF_43)  (I) Blood **Psychotherapy** [44](#_ENREF_44) | **Stress** [45](#_ENREF_45) | (I) Hypothalamus **Stress** [46](#_ENREF_46)  (D) microglia **Stress** [47](#_ENREF_47)  (I) AMY **Stress** [48](#_ENREF_48)  (D) Cortex **PTSD** [49](#_ENREF_49)  (D)  PFC **Psychological Stress** [41](#_ENREF_41)  (I) Hippocampus **Stress**  [50](#_ENREF_50) | (I) Blood **Chronic Stress** [51](#_ENREF_51) | 14 | Not Stepwise |
| **OAS1** 2'-5'-Oligoadenylate Synthetase 1 | 202869\_at | (D) DE/4 56.9% |  | (I) DLPFC (BA 46) **PTSD** 18690294 | (I) Blood **Combat-traumas** [12](#_ENREF_12)  (D) Blood **PTSD**  [22](#_ENREF_22)  (I) Peripheral blood leukocytes **PTSD** [57](#_ENREF_57)  (I) PBMC **PTSD**  [58](#_ENREF_58)  (D) Leukocytes **Social Isolation** [43](#_ENREF_43) |  | (I) NAC **Chronic Stress** [59](#_ENREF_59)  (D) NAC **Chronic Stress** [59](#_ENREF_59) | (D) Blood **PTSD** [56](#_ENREF_56)  (D) Lymphocytes (females) DBP **KO-Stressed** mice, Omega-3 fatty acids [11](#_ENREF_11)  (I) Blood (Males) Stress[8](#_ENREF_8) | 13 | 1.15E-01/2 Stepwise |
| **SNCA** Synuclein Alpha | 215811\_at | (D) AP/2 37.5% | PTSD and alcohol use[61](#_ENREF_61) | (I) NAC **Social Isolation** [10](#_ENREF_10) | (D)  Blood **Post-Deployment** **PTSD** [57](#_ENREF_57)  (D) Blood **Combat-traumas** [12](#_ENREF_12)  (D)  Blood **Female specific interpersonal-traumas** [12](#_ENREF_12)  (I) Blood **Combat-traumas** [57](#_ENREF_57) |  | (D) AMY (males) **Stress** [7](#_ENREF_7)  (I) Hippocampus **Stress** [62](#_ENREF_62) | (D) Lymphocytes (males) **Stress** [7](#_ENREF_7)  (I) Lymphocytes (males) DBP **KO-Stressed** mice, Omega-3 fatty acids [11](#_ENREF_11)  (D)  Blood (Males)  Stress[8](#_ENREF_8)  (I)  Blood (Females)  Stress[8](#_ENREF_8) | 13 | Not Stepwise |
| **RTN4**  Reticulon 4 | 1556049\_at | (I) DE/4 54.4% |  | (I) NAC **Social Isolation** [10](#_ENREF_10) | PBMCs (I) ( PTSD, ER Trauma survivors) [39](#_ENREF_39)  monocytes (I) ( **PTSD**, Assault Trauma) [13](#_ENREF_13)  Blood (I) ( **PTSD**, Childhood Trauma) [22](#_ENREF_22) |  | (I) Female  PFC, **Chronic Variable Stress**  [26](#_ENREF_26) | (I) Lymphocytes (females) **DBP KO-Stressed mice, Omega-3 fatty acids** [11](#_ENREF_11) | 13 | Not Stepwise |
| **SUMO1**  Small Ubiquitin-Like Modifier 1 | 208762\_at | (D) DE/4 56.3% |  | (I) NAC **Social Isolation** [10](#_ENREF_10) | (D PBMC **PTSD** [39](#_ENREF_39) |  | (D)  AMY **Chronic Stress** [63](#_ENREF_63) | (D)  Blood (Males)  **Stress**[8](#_ENREF_8) | 13 | Not Stepwise |
| **NUB1** Negative Regulator Of Ubiquitin Like Proteins 1 | 1560108\_at | (I) DE/4 61.8% |  | (I) NAC **Social Isolation** [10](#_ENREF_10) | (I) Blood **Combat-traumas** [12](#_ENREF_12) |  | (I) Female PFC **Chronic Variable Stress** [26](#_ENREF_26) |  | 12 | 2.34E-02/4 Nominal |
| **B2M** Beta-2-Microglobulin | 232311\_at | (I) DE/6 91.2% |  | (I) NAC **Social Isolation** [10](#_ENREF_10) |  |  | (D)  NAC (female) DBP **KO**-**Stressed** mice, Omega-3 fatty acids [11](#_ENREF_11) |  | 11 | Not Stepwise |
| **LAIR1**  Leukocyte Associated Immunoglobulin Like Receptor 1 | 210644\_s\_at | (D) DE/6 86.2% |  |  | (D)  Blood **PTSD Female specific interpersonal-traumas** [12](#_ENREF_12)  (D)  Blood **PTSD Childhood Traum**) [22](#_ENREF_22) |  | (I) Ventral Striatum **PTSD**  [9](#_ENREF_9) |  | 10.010 | 1.12E-02/4 Nominal |
| **DTNBP1** Dystrobrevin Binding Protein 1 | 223446\_s\_at | (D) DE/6 93.8% | **PTSD**  genetic database  [24](#_ENREF_24) |  | (D) Blood **PTSD**  [22](#_ENREF_22) (I)  PBMC **PTSD**  [25](#_ENREF_25) |  |  |  | 10 | Not Stepwise |
| **OXA1L** OXA1L, Mitochondrial Inner Membrane Protein | 208717\_at | (D) DE/4 56.9% |  | (D) DLPFC (BA4) **PTSD** [23](#_ENREF_23) |  |  | (D) Female NAC **Chronic Variable Stress** [26](#_ENREF_26) |  | 10 | 6.40E-03/4 Nominal |
| **DDX6** DEAD-Box Helicase 6 | 1562836\_at | (I) DE/6 83.8% (I) AP/6 90.2% |  |  |  |  | (D) PFC (males) **Stress**  [7](#_ENREF_7)  (I) AMY (males) **Stress** [7](#_ENREF_7) | (I) Blood (Males) Stress[8](#_ENREF_8) | 9 | Not Stepwise |
| **CCL4** C-C Motif Chemokine Ligand 4 | 204103\_at | (D) DE/6 96.9% |  |  | (I) Venous Blood **PTSD**  [14](#_ENREF_14)  (I) Plasma **PTSD**  [15](#_ENREF_15)  (D) Peripheral blood monocytes **Chronic Stress** [16](#_ENREF_16) |  |  |  | 8 | Not Stepwise |
| **CIRBP** Cold Inducible RNA Binding Protein | 200811\_at | (D) DE/4 69.2% |  |  | (D) Blood Female **specific interpersonal-traumas**  [12](#_ENREF_12)  (D) Monocytes **Combat-traumas** [13](#_ENREF_13) |  | (D) Hippocampus **Stress** [17](#_ENREF_17)  (D) Hippocampus **Physical and Cognitive stimulation** [18](#_ENREF_18) |  | 8 | 3.66E-02/4 Nominal |
| **CYP2E1** Cytochrome P450 Family 2 Subfamily E Member 1 | 209976\_s\_at | (I) DE/2 44.1% | **Psychological Stress** [19](#_ENREF_19) |  | (I) PBMC **Relaxation Response** [20](#_ENREF_20) |  | (D) NAC **Chronic Stress** [21](#_ENREF_21) |  | 8 | 1.57E-02/4 Nominal |
| **DCTN5** Dynactin Subunit 5 | 209231\_s\_at | (D) DE/6 90.8% |  |  | (I) Blood **Childhood Trauma** [22](#_ENREF_22) |  |  |  | 8 | Not Stepwise |
| **GJB2** Gap Junction Protein Beta 2 | 223278\_at | (I) DE/2 48.5% |  | (I) NAC **Social Isolation** [10](#_ENREF_10) |  |  | (I)  **PTSD** [9](#_ENREF_9) |  | 8 | 2.42E-02/4 Nominal |
| **HIF1A** Hypoxia Inducible Factor 1 Alpha Subunit | 238869\_at | (I) DE/4 54.4% |  |  | (I) Peripheral Blood cells **Psychological Stress** [52](#_ENREF_52)  (I) Leukocyte **Stress** [53](#_ENREF_53) |  | (I) Hippocampus **Early Life** **Stress** [54](#_ENREF_54) |  | 8 | 1.11E-02/4 Nominal |
| **N4BP2L2**  NEDD4 Binding Protein 2 Like 2 | 214388\_at | (I) DE/4 69.1% |  |  | (D)  Blood **PTSD Male specific interpersonal-traumas** [12](#_ENREF_12)  (D)  Blood **PTSD Childhood Traum)** [22](#_ENREF_22) |  | (I) Male  NAC **Chronic Variable Stress** [26](#_ENREF_26)  (I)  ST **PTSD** [9](#_ENREF_9)  (D) Hippocampus, AMY, Medial PFC, hemibrain **PTSD** [56](#_ENREF_56) |  | 8 | 4.40E-02/4 Nominal |
| **NKTR** Natural Killer Cell Triggering Receptor | 243055\_at | (I) DE/4 50% (I) AP/2 43.1% |  |  | (I) leukocytes **Social Isolation** [43](#_ENREF_43) |  | (I) Male  NAC **Chronic Variable Stress** [26](#_ENREF_26)  (D) hippocampus **Stress** [17](#_ENREF_17)  (I) Hippocampus (males) DBP **KO-Stressed** mice, Omega-3 fatty acids [11](#_ENREF_11)  (I)  PFC (female) DBP **KO-Stressed** mice, Omega-3 fatty acids [11](#_ENREF_11) |  | 8 | 1.24E-02/4 Nominal |
| **PCDHB6** Protocadherin Beta 6 | 239443\_at | (I) DE/2 38.2% |  | (I) NAC **Social Isolation** [10](#_ENREF_10) |  |  | (I) Hippocampus **Stress**  [60](#_ENREF_60) |  | 8 | 1.17E-02/4 Nominal |
| **PSD3** Pleckstrin And Sec7 Domain Containing 3 | 218613\_at | (D) AP/6 100% |  |  |  |  | (D) Ventral Striatum **PTSD** [9](#_ENREF_9)  (I) Hippocampus, Amygdala, Medial PFC, hemibrain **PTSD** [56](#_ENREF_56)  (D) AMY (males) **Stress** [7](#_ENREF_7) |  | 8 | Not Stepwise |
| **SPON2** Spondin 2 | 218638\_s\_at | (D) DE/6 93.8% |  |  | (D) Venous Blood **PTSD** [14](#_ENREF_14) |  |  |  | 8 | Not Stepwise |
| **UBE2E2** Ubiquitin Conjugating Enzyme E2 E2 | 225651\_at | (D) DE/4 53.8% | **PTSD** [57](#_ENREF_57) |  | (D) Blood **Post-Deployment PTSD** [57](#_ENREF_57) |  |  |  | 8 | 4.41E-02/4 Nominal |
| **HLA-B**  Major Histocompatibility Complex, Class I, B | 211911\_x\_at | (D) DE/4  52.3% |  |  | (D) PBMC  Stress[20](#_ENREF_20) |  |  | (I) Blood (Females) Stress[8](#_ENREF_8) | 7 | 4.85E-02/4 Nominal |
| **LCP2** Lymphocyte Cytosolic Protein 2 | 244251\_at | (D) DE/4  53.8% |  |  |  |  | (D) Female  NAC **Chronic Variable Stress**  [26](#_ENREF_26) | (D) Blood (Males) Stress[8](#_ENREF_8) | 7 | 2.01E-02/4 Nominal |
| **PCBP2**  Poly(RC) Binding Protein 2 | 237374\_at | (I) DE/2 35.3% |  |  | (I) Blood **PTSD** [14](#_ENREF_14) |  | (I)  AMY (Males)  **Stress**[8](#_ENREF_8) | Lymphocytes (males) (I) (Treatments, DBP KO-**Stressed mice**, Omega-3 fatty acids) [11](#_ENREF_11) | 6.5 | 2.83E-02/4 Nominal |
| **STX11** Syntaxin 11 | 210190\_at | (D) DE/2 49.2% |  |  | (I) PBMCs **PTSD ER Trauma survivors)** [39](#_ENREF_39)  (D)  Blood **Interpersonal traumas** [22](#_ENREF_22) |  | (D) Hippocampus **PTSD** [9](#_ENREF_9)  (I) MPFC **PTSD** [9](#_ENREF_9)  (I) Hippocampus, Amygdala, Medial PFC, hemibrain **PTSD** [56](#_ENREF_56) | (D) Lymphocytes (females) DBP **KO-Stressed** mice, Omega-3 fatty acids [11](#_ENREF_11) | 6.5 | 2.74E-02/4 Nominal |
| **ANK2** Ankyrin 2 | 202921\_s\_at | (I) DE/4 52.9% |  |  |  |  | (I) PFC (males) **Stress** [7](#_ENREF_7)  (D)  AMY(Females)  **Stress**[8](#_ENREF_8) |  | 6 | 1.09E-02/4 Nominal |
| **APOL3** Apolipoprotein L3 | 221087\_s\_at | (D) AP/4 50% |  |  |  |  | (D)  **PTSD** [9](#_ENREF_9)  (I) MPFC **PTSD** [9](#_ENREF_9) |  | 6 | 2.96E-02/4 Nominal |
| **C1orf123** Chromosome 1 Open Reading Frame 123 | 203197\_s\_at | (D) DE/4 72.3% |  |  | (D) Blood Male specific **interpersonal-traumas** [12](#_ENREF_12)  (D) monocytes **Assault Trauma** [13](#_ENREF_13) |  |  |  | 6 | 2.92E-02/4 Nominal |
| **DMGDH** Dimethylglycine Dehydrogenase | 231591\_at | (I) DE/2 45.6% |  | (D)  DLPFC (BA 46) **PTSD** [23](#_ENREF_23) |  |  |  |  | 6 | 3.36E-02/4 Nominal |
| **ELMO2** Engulfment And Cell Motility 2 | 220363\_s\_at | (D) DE/4  60.0%  (D) AP/4  54.7% |  |  |  |  | (D) Female  PFC, **Chronic Variable Stress**  [26](#_ENREF_26)  (D) Male  PFC, NAC **Chronic Variable Stress**  [26](#_ENREF_26) |  | 6 | 1.30E-02/4 Nominal |
| **FOXK2** Forkhead Box K2 | 220696\_at | (I) DE/4 58.8% (I) AP/4 72.5% |  |  | (I) PBMC **PTSD** [39](#_ENREF_39) |  |  |  | 6 | 1.52E-02/4 Nominal |
| **HLA-DRB1** Major Histocompatibility Complex, Class II, DR Beta 1 | 209312\_x\_at | (D) DE/2 41.5% |  |  | (D) Whole Blood **PTSD** [40](#_ENREF_40)  (I) Fasting Blood **PTSD** [40](#_ENREF_40)  (D) PBMC **Relaxation Response** [20](#_ENREF_20)  (I) Leukocytes **Social Isolation** [43](#_ENREF_43) |  | (D) Hypothalamus (PVN) **Stress** [55](#_ENREF_55) |  | 6 | 1.22E-02/4 Nominal |
| **LAIR2** Leukocyte Associated Immunoglobulin Like Receptor 2 | 207509\_s\_at | (D) DE/6 98.5% |  |  |  |  |  |  | 6 | Not Stepwise |
| **LOC105378349** Uncharacterized LOC105378349 | 241143\_at | (D) AP/6 90.6% |  |  |  |  |  |  | 6 | Not Stepwise |
| **LRRC59**  Leucine Rich Repeat Containing 59 | 222231\_s\_at | (D) DE/4  61.5% |  |  |  |  | (D) Male  NAC **Chronic Variable Stress**  [26](#_ENREF_26) |  | 6 | 3.15E-02/4 Nominal |
| **MAD1L1** MAD1 Mitotic Arrest Deficient Like 1 | 204857\_at | (D) DE/4 72.3% |  |  | (D) PBMC **Chronic Stress** [16](#_ENREF_16) |  |  |  | 6 | 1.47E-02/4 Nominal |
| **MKL2** MKL1/Myocardin Like 2 | 1562497\_at | (I) AP/4 60.8% |  |  |  |  | (I) Hippocampus **PTSD** [9](#_ENREF_9) |  | 6 | 4.58E-02/4 Nominal |
| **PLEKHA5** Pleckstrin Homology Domain Containing A5 | 239559\_at | (I) DE/2 35.3% |  |  | (I) Blood **Combattraumas** [12](#_ENREF_12) |  | (I) Male  PFC **Chronic Variable Stress** [26](#_ENREF_26)  (D) Hippocampus **PTSD** [9](#_ENREF_9) |  | 6 | 3.33E-02/4 Nominal |
| **UQCC1** Ubiquinol-Cytochrome C Reductase Complex Assembly Factor 1 | 217935\_s\_at | (D) DE/2 38.5% |  | (I) NAC **Social Isolation** [10](#_ENREF_10) |  |  |  |  | 6 | 3.33E-02/4 Nominal |

**Table S3. Evidence for involvement in other psychiatric and related disorders for Top Predictive Biomarkers for Stress (from Figure 2) (n=41 genes, 42 probesets).** In the same direction of expression as stress**.** Red- increased in expression (I) in Stress, Blue- decreased in expression (D). DE- differential expression, AP-Absent/Present. MDD- Depression; BP- bipolar; SZ- schizophrenia.

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Gene Symbol/ Gene Name** | **Probeset** | **Discovery (Change) Method/Score  6pts** | **Prioritization Total CFG Score For Stress** | **Validation Anova p-value  6 pts** | **Prior human genetic evidence for other Disorder 2pts.** | **Prior human Brain expression evidence for other Disorder 4 pts** | **Prior human peripheral evidence for other Disorder**  **2pts.** | **Prior Non-human genetic evidence for other Disorder 1pt.** | **Prior Non-human Brain expression evidence for other Disorder 2pts.** | **Prior Non-human peripheral evidence for other Disorder 1pt** | **External CFG for Other Dx** |
| **TL**  Telomere Lenght |  | (D) |  | **0.238473**  **NS** | **Epigenetic Aging rates**  [64](#_ENREF_64) |  | (D) Leukocyte  **Chronic Alcohol dependence** [65](#_ENREF_65)  (D) **Serum**  **BP, Aging**  [66](#_ENREF_66)  (D) Leukocyte **Mania BP**  [67](#_ENREF_67)  (D)  Leucocyte **SZ** [**68**](#_ENREF_68) |  | (D) Hippocampus **Depression-Like** [69](#_ENREF_69) | (D) serum **Depression-Like** [69](#_ENREF_69) | 7 |
|  |  |  |  |  |  |  |  |  |  |  |  |
| **FKBP5** FK506 Binding Protein 5 | 224856\_at | (D) DE/4 53.8% | 16 | 1.22E-02/4 Nominal | **Psychosis** [70](#_ENREF_70)  **BP** [71](#_ENREF_71)  **Depression**  [72](#_ENREF_72), [73](#_ENREF_73)  **MDD** [32](#_ENREF_32),[74](#_ENREF_74),[75](#_ENREF_75)   **Unipolar Depression** [76](#_ENREF_76)  **MSK Pain** [77](#_ENREF_77)  **Pain**  [78](#_ENREF_78)  **Suicide, BP** [71](#_ENREF_71)  **Suicide**  [79](#_ENREF_79),[80](#_ENREF_80),[81](#_ENREF_81),[82](#_ENREF_82),[83](#_ENREF_83) | (D) ACC **MDD** [84](#_ENREF_84)  (D) AMY **Suicide** [85](#_ENREF_85) | (D) Blood **Alcohol** [86](#_ENREF_86)  (D) Blood **Female Sucide** [87](#_ENREF_87)  (D) Blood **Male Suicide** [88](#_ENREF_88) | **Anxiety** [89](#_ENREF_89) | (D) NAC **Alcohol** [90](#_ENREF_90) |  | 11 |
| **FKBP5** FK506 Binding Protein 5 | 224840\_at | (D) DE/2 41.5% | 14 | Not Stepwise | **Psychosis** [70](#_ENREF_70)  **BP** [71](#_ENREF_71)  **Depression**  [72](#_ENREF_72), [73](#_ENREF_73)  **MDD** [32](#_ENREF_32),[74](#_ENREF_74),[75](#_ENREF_75)   **Unipolar Depression** [76](#_ENREF_76)  **MSK Pain** [77](#_ENREF_77)  **Pain**  [78](#_ENREF_78)  **Suicide, BP** [71](#_ENREF_71)  **Suicide**  [79](#_ENREF_79),[80](#_ENREF_80),[81](#_ENREF_81),[82](#_ENREF_82),[83](#_ENREF_83) | (D) ACC **MDD** [84](#_ENREF_84)  (D) AMY **Suicide** [85](#_ENREF_85) | (D) Blood **Alcohol** [86](#_ENREF_86)  (D) Blood **Female Sucide** [87](#_ENREF_87)  (D) Blood **Male Suicide** [88](#_ENREF_88) | **Anxiety** [89](#_ENREF_89) | (D) NAC **Alcohol** [90](#_ENREF_90) |  | 11 |
| **PSD3** Pleckstrin And Sec7 Domain Containing 3 | 218613\_at | (D) AP/6 100% | 8 | Not Stepwise | **Autism** [91](#_ENREF_91)  **Alcohol** [92](#_ENREF_92)  **Methamphetamine** [93](#_ENREF_93)  **ASD** [94](#_ENREF_94)  **SZ**  [95](#_ENREF_95),[96](#_ENREF_96)  **MDD** [97](#_ENREF_97)  **Chronic Fatigue Syndrome** [98](#_ENREF_98) | (D) Cerebellum **MDD**  [84](#_ENREF_84)  (D) prefrontal cortical parvalbumin neurons cells (PV cells) **SZ** [99](#_ENREF_99) | (D) Blood **Male Suicide** [88](#_ENREF_88)  (D) Blood **Male-BP Suicide** [100](#_ENREF_100)  (D) Blood **Suicide** [100](#_ENREF_100) | **Alcohol** [101](#_ENREF_101) | (D) Ventral tegmental area **Alcohol** [102](#_ENREF_102)  (D) AMY (males) **BP** [7](#_ENREF_7) |  | 11 |
| **SNCA** Synuclein Alpha | 215811\_at | (D) AP/2 37.5% | 13 | Not Stepwise | **Alcohol** [103](#_ENREF_103),[104](#_ENREF_104), [61](#_ENREF_61)  **Methamphetamine** [105](#_ENREF_105)  **Aggression** [61](#_ENREF_61)  **Parkinson** [106](#_ENREF_106) | (D) AMY **SZ** [107](#_ENREF_107)  (D) AMY ACC **MDD** [84](#_ENREF_84)  (D) Brain **BP** [108](#_ENREF_108)  (D) frontal cortex **Alzheimer's Disease** [109](#_ENREF_109)  (D) Frontal, motor cortex **Alcohol** [110](#_ENREF_110)  (D) superior frontal cortex **Alcohol** [111](#_ENREF_111)  (D) DLPFC **MDD** [112](#_ENREF_112) | (D) Blood **SZ** [113](#_ENREF_113), [114](#_ENREF_114)  (D) Blood **Male-BP Suicide** [100](#_ENREF_100) |  | (D) AMY,NAC,FC,CP,Hippocampus **Alcohol** [115](#_ENREF_115)  (D) Caudate Putamen **Alcohol** [115](#_ENREF_115)  (D) Frontal Cortex **Alcohol** [115](#_ENREF_115)  (D) ventral tegmental area **BP**  [116](#_ENREF_116)  (D) AMY (males) **BP** [7](#_ENREF_7) | (D) Blood **Methamphetamine** [117](#_ENREF_117)  (D) Lymphocytes (males) **BP**  [7](#_ENREF_7) | 11 |
| **PCBP2**  Poly(RC) Binding Protein 2 | 237374\_at | (I) DE/2 35.3% | 4.5 | 2.83E-02/4 Nominal |  | (I) Brain **BP** [108](#_ENREF_108) | (I) Blood **Female Sucide** [87](#_ENREF_87)    (I) Blood **Male Suicide** [88](#_ENREF_88)  (I) Blood **Male-BP Suicide** [100](#_ENREF_100)  (I) Blood **Suicide** [100](#_ENREF_100) |  |  |  |  |
| **RTN4**  Reticulon 4 | 1556049\_at | (I) DE/4 54.4% | 9 | Not Stepwise |  | (I)  PFC  BP[118](#_ENREF_118) | (I) Blood **Male Suicide** [88](#_ENREF_88)  (I) Blood **Male-BP Suicide** [100](#_ENREF_100)  (I) Vertebral Disc **Pain** [119](#_ENREF_119) |  | (I)  AMY  Alcohol[120](#_ENREF_120)  (I)  AMY **PCP**[121](#_ENREF_121)  (I) AMY (males) **BP** [7](#_ENREF_7) | (I)  Blood **PCP**[121](#_ENREF_121) |  |
| **SUMO1**  Small Ubiquitin-Like Modifier 1 | 208762\_at | (D) DE/4 56.3% | 9 | Not Stepwise | Longevity[122](#_ENREF_122) | (D)  Brain  BP[108](#_ENREF_108)    (D)  Thalamus  SZ  [123](#_ENREF_123) |  |  |  |  | 6 |
| **ANK2** Ankyrin 2 | 202921\_s\_at | (I) DE/4 52.9% | 6 | 1.09E-02/4 Nominal | **Alcohol** [124](#_ENREF_124)  **ASD** [125](#_ENREF_125)  **Autism** [91](#_ENREF_91) **Longevity**  [122](#_ENREF_122) **Chronic Fatigue Syndrome** [98](#_ENREF_98) | (I) Brain **BP**  [108](#_ENREF_108)  (I) PFC (BA46) **SZ** [126](#_ENREF_126) | (I) Fibroblast **MDD** [127](#_ENREF_127)  (I) Blood **Female Sucide** [87](#_ENREF_87)  (I) Blood **Suicide** [100](#_ENREF_100) |  | (I) PFC (males) **BP** [7](#_ENREF_7) |  | 10 |
| **DDX6** DEAD-Box Helicase 6 | 1562836\_at | (I) DE/6 83.8%  (I) AP/6 90.2% | 8 | Not Stepwise | **Alcohol** [128](#_ENREF_128)  **Other Substances/Addictions** [128](#_ENREF_128) | (I) DLPFC **SZ** [129](#_ENREF_129) | (I) Blood **Male Suicide** [88](#_ENREF_88)  (I) Blood **Male-BP Suicide** [100](#_ENREF_100)  (I) Blood **Suicide** [100](#_ENREF_100) |  | (I) AMY **MDD** [63](#_ENREF_63)  (I) AMY (males) **BP** [7](#_ENREF_7)  (I) AMY **Yohimbine**  [130](#_ENREF_130) |  | 10 |
| **HIF1A** Hypoxia Inducible Factor 1 Alpha Subunit | 238869\_at | (I) DE/4 54.4% | 8 | 1.11E-02/4 Nominal | **SZ** [131](#_ENREF_131) | (I) Frontal and temporal cortex **Autism**  [132](#_ENREF_132)  (I) cerebral cortex **Autism,SZ** [91](#_ENREF_91) | (I) Blood **Longevity**[133](#_ENREF_133)  (I) peripheral white blood cells BP,**MDD** [134](#_ENREF_134)  (I) Blood **Huntington's Disease** [135](#_ENREF_135)  (I) Vertebral Disc **Pain** [119](#_ENREF_119) |  | (I) AMY **Alcohol** [136](#_ENREF_136) |  | 10 |
| **DTNBP1** Dystrobrevin Binding Protein 1 | 223446\_s\_at | (D) DE/6 93.8% | 10 | Not Stepwise | **Autism** [91](#_ENREF_91)  **Methamphetamine** [137](#_ENREF_137)  **Psychosis**  [138](#_ENREF_138),[139](#_ENREF_139),[140](#_ENREF_140)  **SZ**  [141](#_ENREF_141),[142](#_ENREF_142),[143](#_ENREF_143),[144](#_ENREF_144),[145](#_ENREF_145)  **BP**  [146](#_ENREF_146),[142](#_ENREF_142),[147](#_ENREF_147),[148](#_ENREF_148),[149](#_ENREF_149),[150](#_ENREF_150)**,**[151](#_ENREF_151) | (D) Brain **BP** [108](#_ENREF_108)  (D) DLPFC **SZ** [152](#_ENREF_152)  (D) Hippocampus (CA3) **SZ** [153](#_ENREF_153)  (D) cerebral cortex **Autism** [91](#_ENREF_91)  (D) Hippocampus,pSTG **SZ** [154](#_ENREF_154) | (D) lymphocytes **SZ** [155](#_ENREF_155)  (D) Blood **Suicide** [100](#_ENREF_100) | **Intellect** [156](#_ENREF_156)    **SZ**  [157](#_ENREF_157),[158](#_ENREF_158),[159](#_ENREF_159),[160](#_ENREF_160),[161](#_ENREF_161),[162](#_ENREF_162),[163](#_ENREF_163),[164](#_ENREF_164),[165](#_ENREF_165) |  |  | 9 |
| **APOL3** Apolipoprotein L3 | 221087\_s\_at | (D) AP/4 50% | 6 | 2.96E-02/4 Nominal | **ADHD**  [166](#_ENREF_166) | (D) cerebral cortex **SZ** [91](#_ENREF_91) | (D) Blood **Female Sucide** [87](#_ENREF_87)  (D) Blood **Male Suicide** [88](#_ENREF_88) |  |  |  | 8 |
| **B2M** Beta-2-Microglobulin | 232311\_at | (I) DE/6 91.2% | 11 | Not Stepwise |  | (I) cerebral cortex **Autism** [91](#_ENREF_91) | (I) Blood Male Suicide [88](#_ENREF_88)  Blood **Male-BP Suicide** [100](#_ENREF_100)  (I) Blood **Suicide**  [100](#_ENREF_100)  (I) Blood **Atypical depression** [167](#_ENREF_167)  (I) CSF **MDD** [168](#_ENREF_168)  (I) CSF **Pain** [169](#_ENREF_169) |  | (I) Hippocampus **Aging** [170](#_ENREF_170)  (I) Hypothalamus **Eating Disorder**[**171**](#_ENREF_171)  (I) ventral tegmental area **Alcohol** 23714385 |  | 8 |
| **DCTN5** Dynactin Subunit 5 | 209231\_s\_at | (D) DE/6 90.8% | 8 | Not Stepwise | **BP**  [150](#_ENREF_150), cnv  [172](#_ENREF_172) | (D) Brain **BP** [108](#_ENREF_108) | (D) Blood **Male Suicide** [88](#_ENREF_88)  (D) Blood **Suicide** [100](#_ENREF_100) |  |  |  | 8 |
| **HLA-DRB1** Major Histocompatibility Complex, Class II, DR Beta 1 | 209312\_x\_at | (D) DE/2 41.5% | 6 | 1.22E-02/4 Nominal | **Longevity**[122](#_ENREF_122)  [173](#_ENREF_173),[174](#_ENREF_174), [175](#_ENREF_175)   **Alzheimer's Disease** [176](#_ENREF_176)  **SZ**  [177](#_ENREF_177)  **Pain** [78](#_ENREF_78)  **Panic Disorder**[178](#_ENREF_178) | (D) Brain **BP** [108](#_ENREF_108)  (D) DLPFC **SZ** [179](#_ENREF_179)  (D) frontal **Alcohol** [180](#_ENREF_180)  (D) PFC **Alcohol** [181](#_ENREF_181) |  |  | (D) NAC **Alcohol** [182](#_ENREF_182) |  | 8 |
| **MAD1L1** MAD1 Mitotic Arrest Deficient Like 1 | 204857\_at | (D) DE/4 72.3% | 6 | 1.47E-02/4 Nominal | **Autism** [91](#_ENREF_91)  **SZ**  [177](#_ENREF_177),[183](#_ENREF_183),[184](#_ENREF_184),[185](#_ENREF_185),[186](#_ENREF_186),[187](#_ENREF_187), [188](#_ENREF_188)  **BP**[189](#_ENREF_189), [190](#_ENREF_190),[191](#_ENREF_191),[186](#_ENREF_186),[192](#_ENREF_192),[193](#_ENREF_193) [194](#_ENREF_194),[195](#_ENREF_195) | (D) cerebral cortex **Autism** [91](#_ENREF_91) | (D) SH-SY5Y cells (D) **Cocaine**  [196](#_ENREF_196)  Blood **BP** [197](#_ENREF_197) |  |  |  | 8 |
| **N4BP2L2**  NEDD4 Binding Protein 2 Like 2 | 214388\_at | (I) DE/4 69.1% | 8 | 4.40E-02/4 Nominal | **SZ**  [91](#_ENREF_91),[131](#_ENREF_131) | (I) DLPFC **SZ** [179](#_ENREF_179)  (I) Dorsal Lateral PFC **MDD** [198](#_ENREF_198)  (I) NAC **Suicide** [199](#_ENREF_199)  (I) cerebral cortex **SZ** [91](#_ENREF_91) | (I) L neurons **BP**  [200](#_ENREF_200)  (I) Blood **Female Sucide** [87](#_ENREF_87)  (I) Blood **Male Suicide** [88](#_ENREF_88)  (I) Blood **Male-BP Suicide** [100](#_ENREF_100)  (I) Blood **Suicide**  [100](#_ENREF_100) |  |  |  | 8 |
| **OAS1** 2'-5'-Oligoadenylate Synthetase 1 | 202869\_at | (D) DE/4 56.9% | 13 | 1.15E-01/2 Stepwise |  | (D) Hippocampus **Alcohol** [201](#_ENREF_201) | (D) Peripheral Blood cells **Panic Disorder** [202](#_ENREF_202)  (D) Blood mononuclear cell (BMC) **Alzheimer's Disease** [203](#_ENREF_203)  (D) **Depression-Related** [204](#_ENREF_204) |  | (D) PFC **MDD** [205](#_ENREF_205) |  | 8 |
| **OXA1L** OXA1L, Mitochondrial Inner Membrane Protein | 208717\_at | (D) DE/4 56.9% | 10 | 6.40E-03/4 Nominal | **Autism** [91](#_ENREF_91) | (D) Frontal and temporal cortex **Autism** [132](#_ENREF_132)  (D) PFC (BA46) **BP,SZ** [126](#_ENREF_126)  (D) Cerebral Cortex **Autism** [91](#_ENREF_91) | (D) Blood **Male Suicide** [88](#_ENREF_88)  (D) Blood **Suicide**  [100](#_ENREF_100) |  |  |  | 8 |
| **SPON2** Spondin 2 | 218638\_s\_at | (D) DE/6 93.8% | 8 | Not Stepwise | **Autism** [91](#_ENREF_91) | (D) Cerebral Cortex **Autism,BP,SZ** [91](#_ENREF_91) | (D) Lymphocyte **Panic Disorder** [206](#_ENREF_206)  (D) PBMC cells **BP** [207](#_ENREF_207) |  |  |  | 8 |
| **CCL4** C-C Motif Chemokine Ligand 4 | 204103\_at | (D) DE/6 96.9% | 8 | Not Stepwise |  | (D) Hippocampus **SZ** [208](#_ENREF_208)  (D) PFC (BA9) **MDD** [209](#_ENREF_209) | (D) Blood **Depression** [210](#_ENREF_210)  (D) CSF, plasma **Suicide** [211](#_ENREF_211) |  |  | (D) Plasma **Alcohol** [212](#_ENREF_212) | 7 |
| **NKTR** Natural Killer Cell Triggering Receptor | 243055\_at | (I) DE/4 50% (I) AP/2 43.1% | 8 | 1.24E-02/4 Nominal |  | (I) AMY and cingulate cortex **MDD** [213](#_ENREF_213)  (I) DLPFC **SZ**  [179](#_ENREF_179) | (I) L neurons **BP** [200](#_ENREF_200)  (I) Blood **Female Sucide** [87](#_ENREF_87)  (I) Blood **Male-BP Suicide** [100](#_ENREF_100) | Alcohol [214](#_ENREF_214) |  |  | 7 |
| **CIRBP** Cold Inducible RNA Binding Protein | 200811\_at | (D) DE/4 69.2% | 8 | 3.66E-02/4 Nominal |  | (D) Cerebral Cortex **Autism** [91](#_ENREF_91) | Differentially methylated Whole blood DNA **SZ** [215](#_ENREF_215) |  |  |  | 6 |
| **FOXK2** Forkhead Box K2 | 220696\_at | (I) DE/4 58.8% (I) AP/4 72.5% | 6 | 1.52E-02/4 Nominal | **Autism** [91](#_ENREF_91)   **Suicide** [216](#_ENREF_216) |  | (I) Blood **Female Sucide** [87](#_ENREF_87)  (I) Blood **Male-BP Suicide** [100](#_ENREF_100)  (I) Blood **Suicide**  [100](#_ENREF_100)  (I) Blood **Delusions, Hallucinations** [217](#_ENREF_217) |  | (I) AMY, Hippocampus **Alcohol** [182](#_ENREF_182) |  | 6 |
| **UQCC1** Ubiquinol-Cytochrome C Reductase Complex Assembly Factor 1 | 217935\_s\_at | (D) DE/2 38.5% | 6 | 3.33E-02/4 Nominal |  | (D) Brain **BP** [108](#_ENREF_108) | (D) Blood **Female Sucide** [87](#_ENREF_87)  (D) Blood **Male-BP Suicide** [100](#_ENREF_100)  (D) Blood **Suicide**  [100](#_ENREF_100) |  |  |  | 6 |
| **CYP2E1** Cytochrome P450 Family 2 Subfamily E Member 1 | 209976\_s\_at | (I) DE/2 44.1% | 8 | 1.57E-02/4 Nominal | **Alcohol** [218](#_ENREF_218)  **SZ** [219](#_ENREF_219) |  | (I) Blood **Suicide**  [100](#_ENREF_100) |  |  |  | 4 |
| **LCP2** Lymphocyte Cytosolic Protein 2 | 244251\_at | (D) DE/4  53.8% | 6 | 2.01E-02/4 Nominal | **ASD** [**94**](#_ENREF_94) |  |  |  | (D) Ventral Hippocampus **MDD** [205](#_ENREF_205) |  | 4 |
| **LRRC59** Leucine Rich Repeat Containing 59 | 222231\_s\_at | (D) DE/4  61.5% | 6 | 3.15E-02/4 Nominal |  | (D) cerebral cortex  **SZ**  [91](#_ENREF_91) |  |  |  |  | 4 |
| **NUB1** Negative Regulator Of Ubiquitin Like Proteins 1 | 1560108\_at | (I) DE/4 61.8% | 12 | 2.34E-02/4 Nominal | **Autism** [91](#_ENREF_91) |  | (I) Blood **Female Sucide** [87](#_ENREF_87)  (I) Blood **Male Suicide** [88](#_ENREF_88),[220](#_ENREF_220)  (I) Blood **Male-BP Suicide** [100](#_ENREF_100)  (I) Blood **Suicide** [100](#_ENREF_100) |  |  |  | 4 |
| **PLEKHA5** Pleckstrin Homology Domain Containing A5 | 239559\_at | (I) DE/2 35.3% | 6 | 3.33E-02/4 Nominal | **BP** [221](#_ENREF_221) |  | (I) Blood **Male Suicide** [88](#_ENREF_88) |  |  |  | 4 |
| **C1orf123** Chromosome 1 Open Reading Frame 123 | 203197\_s\_at | (D) DE/4 72.3% | 6 | 2.92E-02/4 Nominal |  |  | (D) Blood **Female Suicide** [87](#_ENREF_87) |  |  |  | 2 |
| **DMGDH** Dimethylglycine Dehydrogenase | 231591\_at | (I) DE/2 45.6% | 6 | 3.36E-02/4 Nominal |  |  | (I) Blood **Suicide**  [100](#_ENREF_100)  (I) Blood **Delusions**[217](#_ENREF_217) |  |  |  | 2 |
| **ELMO2** Engulfment And Cell Motility 2 | 220363\_s\_at | (D) DE/4  60.0%  (D) AP/4  54.7% | 6 | 1.30E-02/4 Nominal |  |  | (D) Blood **Suicide**  [100](#_ENREF_100) |  |  |  | 2 |
| **GJB2** Gap Junction Protein Beta 2 | 223278\_at | (I) DE/2 48.5% | 8 | 2.42E-02/4 Nominal |  |  |  |  | (I) Ventral Hippocampus **MDD** [205](#_ENREF_205) |  | 2 |
| **LAIR1**  Leukocyte Associated Immunoglobulin Like Receptor 1 | 210644\_s\_at | (D) DE/6 86.2% | 10 | 1.12E-02/4 Nominal |  |  | (D) Blood **Suicide** [100](#_ENREF_100) |  |  |  | 2 |
| **LAIR2** Leukocyte Associated Immunoglobulin Like Receptor 2 | 207509\_s\_at | (D) DE/6 98.5% | 6 | Not Stepwise |  |  | (D) Blood **Male Suicide** [88](#_ENREF_88) |  |  |  | 2 |
| **MKL2** MKL1/Myocardin Like 2 | 1562497\_at | (I) AP/4 60.8% | 6 | 4.58E-02/4 Nominal | **Autism** [91](#_ENREF_91)  **SZ** [222](#_ENREF_222) |  |  |  |  |  | 2 |
| **PCDHB6** Protocadherin Beta 6 | 239443\_at | (I) DE/2 38.2% | 8 | 1.17E-02/4 Nominal |  |  | (I) Blood **Female Sucide** [87](#_ENREF_87) |  |  |  | 2 |
| **UBE2E2** Ubiquitin Conjugating Enzyme E2 E2 | 225651\_at | (D) DE/4 53.8% | 8 | 4.41E-02/4 Nominal | **Psychosis** [223](#_ENREF_223) |  |  |  |  |  | 2 |
| **HLA-B**  Major Histocompatibility Complex, Class I, B | 211911\_x\_at | (D) DE/4  52.3% | 6 | 4.85E-02/4 Nominal |  |  |  |  |  |  | 0 |
| **LOC105378349** Uncharacterized LOC105378349 | 241143\_at | (D) AP/6 90.6% | 6 | Not Stepwise |  |  |  |  |  |  | 0 |
| **STX11** Syntaxin 11 | 210190\_at | (D) DE/2 49.2% | 6.5 | 2.74E-02/4 Nominal |  |  |  |  |  |  | 0 |

**Table S4. Pharmacogenomics of Top Predictive Biomarkers for Stress (from Figure 2) (n=41 genes, 42 probesets)** Top predictive biomarkers in our datasets that are targets of existing drugs and are modulated by them in opposite direction.

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Gene Symbol/ Gene Name** | **Probeset** | **Discovery (Change) Method/Score  6pts** | **Prioritization Total CFG Score For Stress** | **Validation Anova p-value  6 pts** | **Omega-3** | **Antidepressants** | **Mood Stabilizers** | **Antipsychotics** | **Other Treatments** |
| **TL**  Telomere Length  Reference marker from literature |  | (D) |  | Not Stepwise | (I)  Peripheral Blood Mononuclearcytes  **Omega-3 fatty acids**  [224](#_ENREF_224) | (I)  C. Elegans  **Mianserin**  [225](#_ENREF_225) | (I)  Saliva  **Lithium**  [226](#_ENREF_226)  (I)  Blood  **Lithium**[**227**](#_ENREF_227) | (I)  Peripheral Blood Leukocytes  **Olanzapine**  [228](#_ENREF_228) | (I)  Peripheral Blood Leukocytes  **Meditation**  [229](#_ENREF_229),[230](#_ENREF_230) |
|  |  |  |  |  |  |  |  |  |  |
| **FKBP5** FK506 Binding Protein 5 | 224856\_at | (D) DE/4 53.8% | 16 | **1.22E-02/4 Nominal** |  |  | (I) Cerebral Cortex (right) **Lithium** [231](#_ENREF_231) |  | (I) Blood **Psychotherapy** [44](#_ENREF_44) |
| **FKBP5** FK506 Binding Protein 5 | 224840\_at | (D) DE/2 41.5% | 14 | Not Stepwise |  |  | (I) Cerebral Cortex (right) **Lithium**[231](#_ENREF_231) |  | (I) Blood **Psychotherapy** [44](#_ENREF_44) |
| **RTN4**  Reticulon 4 | 1556049\_at | (I) DE/4 54.4% | 13 | Not Stepwise | (D)  Lymphocytes (females)  **Omega-3**[11](#_ENREF_11) |  | (D) VT **Valproate**[232](#_ENREF_232) |  |  |
| **OAS1** 2'-5'-Oligoadenylate Synthetase 1 | 202869\_at | (D) DE/4 56.9% | 13 | 1.15E-01/2 Stepwise |  |  | (I) Blood mononuclear cells **Lithium** [233](#_ENREF_233) |  |  |
| **SNCA** Synuclein Alpha | 215811\_at | (D) AP/2 37.5% | 13 | Not Stepwise | (I) Lymphocytes (males) DBP KO-Stressed mice**, Omega-3 fatty acids** [11](#_ENREF_11) |  | (I) NT2.D1 cells **Lithium** [234](#_ENREF_234) |  |  |
| **B2M** Beta-2-Microglobulin | 232311\_at | (I) DE/6 91.2% | 11 | Not Stepwise | (D) NAC (females)DBP KO-Stressed mice, **Omega-3 fatty acids** [11](#_ENREF_11) |  |  |  | 4'-iodo-4'-deoxydoxorubicin |
| **NUB1** Negative Regulator Of Ubiquitin Like Proteins 1 | 1560108\_at | (I) DE/4 61.8% | 12 | **2.34E-02/4 Nominal** |  |  |  | (D) VT **Clozapine** [121](#_ENREF_121) |  |
| **GJB2** Gap Junction Protein Beta 2 | 223278\_at | (I) DE/2 48.5% | 8 | **2.42E-02/4 Nominal** |  |  |  | (D)  VT **Clozapine** [121](#_ENREF_121) |  |
| **HIF1A** Hypoxia Inducible Factor 1 Alpha Subunit | 238869\_at | (I) DE/4 54.4% | 8 | **1.11E-02/4 Nominal** |  |  |  |  | EZN 2968 |
| **LRRC59** Leucine Rich Repeat Containing 59 | 222231\_s\_at | (D) DE/4  61.5% | 6 | **3.15E-02/4 Nominal** |  |  |  | (I) CP **Valproate** [232](#_ENREF_232) |  |
| **PSD3** Pleckstrin And Sec7 Domain Containing 3 | 218613\_at | (D) AP/6 100% | 8 | Not Stepwise |  |  |  | (I) VT **Clozapine** [121](#_ENREF_121) |  |
| **STX11** Syntaxin 11 | 210190\_at | (D) DE/2 49.2% | 6.5 | **2.74E-02/4 Nominal** |  | (I) MNC **Antidepressants**[235](#_ENREF_235) | (I) Lymphoblastoid cell cultures **Lithium** [236](#_ENREF_236)  (I) Lymphoblastoid cell cultures **Valproate** [236](#_ENREF_236) |  |  |
| **ANK2** Ankyrin 2 | 202921\_s\_at | (I) DE/4 52.9% | 6 | **1.09E-02/4 Nominal** |  | (D) C.elegans **Mianserin** [237](#_ENREF_237) |  |  |  |
| **HLA-DRB1** Major Histocompatibility Complex, Class II, DR Beta 1 | 209312\_x\_at | (D) DE/2 41.5% | 6 | **1.22E-02/4 Nominal** |  |  |  |  | apolizumab |
| **LAIR2** Leukocyte Associated Immunoglobulin Like Receptor 2 | 207509\_s\_at | (D) DE/6 98.5% | 6 | Not Stepwise |  | (I) Blood **Antidepressants**[238](#_ENREF_238) |  |  |  |

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