

Predicting disease-related proteins based on clique backbone in protein-protein interaction network

Supplementary materials

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S1. The algorithm of greedy depth-first search of extending clique

Input: a clique

Output: an extended clique set (*ex-set*)

Initialize: *Neighbor Pool*(N);

Candidate Pool(C) $\leftarrow \Phi$;

ex-set $\leftarrow \Phi$;

ex-clique \leftarrow *clique*;

1. Identifying the candidate pool

For $\forall n \in N$

$S \leftarrow$ *clique* $\cup \{n\}$

If $den(S) > 0.9$ Then $C \leftarrow \{n\}$

End for

If $C = \Phi$ **Then**

ex-set $\leftarrow \{clique\}$;

Return *ex-set*;

2. Extending the clique

Do

For $\forall n_i \in C$

$n \leftarrow \arg(\max(CC(\{n_i\} \cup ex-clique))));$

End for

$S \leftarrow$ *ex-clique* $\cup \{n\}$;

If $den(S) > 0.9$ **Then**

$C \leftarrow C - \{n\}$;

ex-clique \leftarrow *ex-clique* $\cup \{n\}$;

STACK.PUSH(n);

$L \leftarrow TRUE$;

Else

If $L = TRUE$ **Then** *ex-set* \leftarrow *ex-set* $\cup \{ex-clique\}$

$n \leftarrow$ *STACK.POP*

ex-clique \leftarrow *ex-clique* $- \{n\}$

$L \leftarrow FALSE$

Until $C = \Phi$

Return *ex-set*.

S2. The top 50 phenotypes of predicted disease proteins

Table S1 Top 50 phenotypes of predicted disease proteins based on two PPINs

| ID | Phenotype | HPRD | OPHID | Disease class |
|----|--|------|-------|---|
| 1 | Type 2 Diabetes; edema; rosiglitazone | 29 | 34 | PHARMACOGENOMIC |
| 2 | breast cancer | 23 | 22 | CANCER PHARMACOGENOMIC |
| 3 | Tobacco Use Disorder | 19 | 27 | CHEMDEPENDENCY |
| 4 | lung cancer | 17 | 17 | CANCER PHARMACOGENOMIC |
| 5 | plasma HDL cholesterol (HDL-C) levels | 16 | 16 | METABOLIC |
| 6 | Bone Mineral Density | 16 | 15 | CANCER CARDIOVASCULAR HEMATOLOGICAL IMMUNE METABOLIC RENAL |
| 7 | prostate cancer | 16 | 14 | PHARMACOGENOMIC |
| 8 | Chronic renal failure;Kidney Failure, Chronic | 14 | 15 | RENAL |
| 9 | colorectal cancer | 14 | 13 | CANCER IMMUNE PHARMACOGENOMIC |
| 10 | bladder cancer | 13 | 12 | CANCER PHARMACOGENOMIC |
| 11 | Alzheimer's disease | 11 | 14 | NEUROLOGICAL |
| 12 | esophageal adenocarcinoma | 11 | 12 | CANCER |
| 13 | ovarian cancer | 10 | 11 | CANCER METABOLIC PHARMACOGENOMIC |
| 14 | HIV | 9 | 8 | IMMUNE INFECTION NEUROLOGICAL PHARMACOGENOMIC |
| 15 | benzene haematotoxicity | 9 | 7 | PHARMACOGENOMIC |
| 16 | Hodgkin Disease;Leukemia, Lymphocytic, Chronic, B-Cell;Lymphoproliferative Disorders;Waldenstrom Macroglobulinemia | 9 | 7 | CANCER |
| 17 | multiple sclerosis | 8 | 9 | IMMUNE PHARMACOGENOMIC |
| 18 | Arthritis, Rheumatoid; | 8 | 7 | IMMUNE |
| 19 | chronic obstructive pulmonary disease | 8 | 8 | CARDIOVASCULAR IMMUNE OTHER |
| 20 | Cleft Lip;Cleft Palate | 8 | 8 | DEVELOPMENTAL |
| 21 | Lupus Erythematosus, Systemic;Systemic lupus erythematosus | 7 | 6 | IMMUNE UNKNOWN |
| 22 | Leukemia, Lymphocytic, Chronic, B-Cell | 7 | 7 | CANCER |
| 23 | Multiple Myeloma | 7 | 5 | CANCER |
| 24 | epithelial ovarian cancer | 7 | 7 | CANCER |
| 25 | Hepatopulmonary Syndrome;Liver Cirrhosis | 7 | 6 | UNKNOWN |
| 26 | Hepatitis C;Remission, Spontaneous | 6 | 4 | INFECTION |
| 27 | Precursor Cell Lymphoblastic Leukemia-Lymphoma | 6 | 6 | CANCER |
| 28 | diabetes, type 2 | 6 | 7 | CARDIOVASCULAR |

| | | | | |
|----|---|---|---|--|
| | | | | IMMUNE METABOLIC OTHER PHARMACOGENOMIC RENAL |
| 29 | Lymphoma, Non-Hodgkin | 6 | 5 | CANCER |
| 30 | diabetes, type 1 | 6 | 6 | CARDIOVASCULAR IMMUNE INFECTION METABOLIC OTHER |
| 31 | Body Weight | 6 | 6 | METABOLIC |
| 32 | Neoplasms | 5 | 5 | CANCER |
| 33 | longevity | 5 | 5 | AGING CARDIOVASCULAR |
| 34 | Lymphoma, Non-Hodgkin;Lymphoma, Non-Hodgkin's | 5 | 4 | CANCER |
| 35 | Colorectal Neoplasms | 5 | 4 | CANCER |
| 36 | head and neck cancer | 5 | 5 | CANCER PHARMACOGENOMIC |
| 37 | Adenocarcinoma;Pancreatic Neoplasms | 5 | 4 | CANCER |
| 38 | bronchodilator response | 5 | 6 | IMMUNE |
| 39 | Heart Rate | 5 | 5 | CARDIOVASCULAR |
| 40 | Pancreatic Neoplasms | 5 | 5 | CANCER |
| 41 | Bronchiolitis, Viral;Respiratory Syncytial Virus Infections | 4 | 5 | INFECTION |
| 42 | Body Height | 4 | 5 | DEVELOPMENTAL |
| 43 | bone density | 4 | 4 | METABOLIC NORMALVARIATION UNKNOWN |
| 44 | Arthritis, Rheumatoid;Rheumatoid Arthritis | 4 | 4 | IMMUNE |
| 45 | stomach cancer | 4 | 4 | CANCER PHARMACOGENOMIC |
| 46 | melanoma | 4 | 3 | CANCER |
| 47 | Alcoholism | 4 | 3 | CHEMDEPENDENCY PHARMACOGENOMIC |
| 48 | thyroid cancer | 4 | 5 | CANCER |
| 49 | Parkinson's disease | 4 | 3 | CANCER CHEMDEPENDENCY IMMUNE METABOLIC NEUROLOGICAL PHARMACOGENOMIC |
| 50 | Narcolepsy | 4 | 7 | NEUROLOGICAL |

S3. Predicted disease proteins in G_2

Using ex-cliques and GO scoring predicted 69 disease proteins based on the PPIN of HPRD (see Table S2). The proteins in gray cells were not found in GAD.

Table S2 Predicted disease proteins in G_2

| | | | | | | | | | |
|--------|--------|----------|-------|-------|-------|-------|--------|---------|-------|
| STAT5A | PIK3R1 | PTPN6 | PLCG1 | GRB2 | SMAD3 | PTK2 | JUN | SP1 | GRB10 |
| FHL2 | SHC1 | HSP90AA1 | NCOA2 | KAT2B | DAXX | CEBPB | HDAC1 | MED1 | PTK2B |
| CASP3 | RELA | PRKCD | MDM4 | HIF1A | FYN | MAPK1 | NFKB1 | SMAD2 | NBN |
| UBE2I | IKBKB | NCOA3 | SMAD4 | PRKCZ | CDK6 | RXRA | ADRBK1 | NCOA6 | THBS1 |
| RAD51 | YWHAB | GSK3B | AHR | MAPK3 | MDC1 | CD2 | CD28 | LYN | FOXO4 |
| HIPK2 | STAT2 | KAT2A | NR4A1 | TRAF6 | CDX2 | FOXO3 | PXN | MNAT1 | PRKDC |
| CDKN1A | MYOD1 | PAG1 | APH1A | RFC1 | FANCG | KAT5 | GTF2I | SUV39H1 | |

S4. Predicted disease proteins in G_2'

Using ex-cliques and GO scoring predicted 83 disease proteins based on the PPIN of OPHID (see Table S3). The proteins in gray cells also were not found in GAD.

Table S3 Predicted disease proteins in G_2'

| | | | | | | | | | |
|--------|---------|----------|--------|-------|--------|-------|-------|-------|-------|
| PIK3R1 | STAT5A | GRB2 | PLCG1 | PTPN6 | SMAD3 | JAK1 | PTK2B | JUN | FYN |
| SP1 | SHC1 | HSP90AA1 | HIF1A | NCOA2 | FHL2 | GRB10 | KAT2B | SYK | CSK |
| FER | PRKCD | CEBPB | CASP3 | HDAC1 | ERBB4 | DOK1 | MDM4 | HIPK2 | UBC |
| RXRA | UBE2I | NBN | IKBKB | MED1 | ADRBK1 | MAPK1 | E2F1 | SMAD2 | PXN |
| RELA | PRKCZ | MAPK3 | CDKN1A | SMAD4 | NCOA6 | PRKCE | CDK6 | MDC1 | YWHAB |
| THBS1 | APBB1 | RAD51 | AHR | EGR1 | YWHAZ | CD28 | CD2 | CDK5 | NCOA3 |
| NR4A1 | STAT2 | KAT2A | GSK3B | FOXO4 | MNAT1 | FOXO3 | CDX2 | DAXX | PRKCQ |
| PLCG2 | PRKD1 | PAG1 | PRKDC | MYOD1 | MAP3K7 | APH1A | RFC1 | PDPK1 | KAT5 |
| GTF2I | SUV39H1 | KPNA1 | | | | | | | |

S5. Phenotypes of predicted disease proteins in G₂

The 66 predicted disease proteins derived from the HPRD PPIN were verified by GAD. The content of every predicted disease protein contained two columns, i.e. phenotypes and disease class.

1. STAT5A
 1. hepatocellular carcinoma [CANCER]
 2. plasma HDL cholesterol (HDL-C) levels [METABOLIC]
 3. Meningeal Neoplasms|meningioma [CANCER]
 4. Hepatitis C|Remission, Spontaneous [INFECTION]
 5. myeloid leukemia [CANCER]
 6. Bronchiolitis, Viral|Respiratory Syncytial Virus Infections [INFECTION]
 7. breast cancer [CANCER, PHARMACOGENOMIC]
 8. Lupus Erythematosus, Systemic|Systemic lupus erythematosus [IMMUNE, UNKNOWN]
 9. Precursor Cell Lymphoblastic Leukemia-Lymphoma [CANCER]
 10. hepatitis C [INFECTION]
 11. respiratory syncytial virus bronchiolitis [INFECTION]
 12. Asthma|Bronchiolitis, Viral|Respiratory Syncytial Virus Infections [INFECTION]
 13. Birth Weight|Leukemia|Leukemia, Myeloid, Acute|Precursor Cell Lymphoblastic Leukemia-Lymphoma [CANCER]
2. PIK3R1
 1. diabetes, type 2; hypertension [METABOLIC, CARDIOVASCULAR]
 2. periodontitis [IMMUNE, UNKNOWN]
 3. longevity [AGING, CARDIOVASCULAR]
 4. Neoplasms [CANCER]
 5. Colonic Neoplasms [CANCER]
 6. diabetes, type 2 [METABOLIC, OTHER, IMMUNE, RENAL, CARDIOVASCULAR, PHARMACOGENOMIC]
 7. BMI- Edema rosiglitazone or pioglitazone [PHARMACOGENOMIC]
 8. Tunica Media [CARDIOVASCULAR]
 9. prostate cancer [CANCER, PHARMACOGENOMIC]
 10. Arteries [CARDIOVASCULAR]
 11. HIV [INFECTION, IMMUNE, NEUROLOGICAL, PHARMACOGENOMIC]
 12. Alzheimer's Disease [OTHER, PSYCH, NEUROLOGICAL]
 13. Hypercholesterolemia|LDLC levels [METABOLIC]
 14. Polycystic Ovary Syndrome [REPRODUCTION]
 15. plasma HDL cholesterol (HDL-C) levels [METABOLIC]
 16. alcohol [OTHER, CHEMDEPENDENCY]
 17. Tobacco Use Disorder [CHEMDEPENDENCY]
 18. Insulin Resistance|Obesity [METABOLIC]
 19. Pancreatic Neoplasms [CANCER]
 20. Type 2 Diabetes| edema | rosiglitazone [PHARMACOGENOMIC]
 21. Kidney Failure, Chronic [RENAL]
 22. Body Weight [METABOLIC]
 23. Insulin Resistance|Polycystic Ovary Syndrome [REPRODUCTION, METABOLIC]
 24. Cholesterol [METABOLIC]
 25. Body Mass Index [METABOLIC]
3. PTPN6
 1. rheumatoid arthritis [IMMUNE, PHARMACOGENOMIC]
 2. systemic lupus erythematosus [OTHER, IMMUNE]
 3. Lupus Erythematosus, Systemic|Systemic lupus erythematosus [IMMUNE, UNKNOWN]
 4. Alzheimer's disease [NEUROLOGICAL]
4. PLCG1
 1. several psychiatric disorders [PSYCH]
 2. bipolar disorder [CHEMDEPENDENCY, PSYCH, PHARMACOGENOMIC]
 3. HIV [INFECTION, IMMUNE, NEUROLOGICAL, PHARMACOGENOMIC]
 4. Type 2 Diabetes| edema | rosiglitazone [PHARMACOGENOMIC]
 5. Chronic renal failure|Kidney Failure, Chronic [RENAL]
 6. multiple sclerosis [IMMUNE, PHARMACOGENOMIC]
5. GRB2
 1. plasma HDL cholesterol (HDL-C) levels [METABOLIC]
 2. Tobacco Use Disorder [CHEMDEPENDENCY]
 3. Type 2 Diabetes| edema | rosiglitazone [PHARMACOGENOMIC]
 4. Neuroblastoma [CANCER]
 5. Alzheimer's disease [NEUROLOGICAL]
 6. Bulimia [PSYCH]
6. SMAD3
 1. Heart Rate [CARDIOVASCULAR]
 2. Coronary Artery Disease [CARDIOVASCULAR]
 3. Asthma [IMMUNE, UNKNOWN]
 4. Pulmonary Disease, Chronic Obstructive [OTHER, CARDIOVASCULAR]
 5. epithelial ovarian cancer [CANCER]

- 6. diabetes, type 2 [METABOLIC, OTHER, IMMUNE, RENAL, CARDIOVASCULAR, PHARMACOGENOMIC]
 - 7. Head and Neck Neoplasms|Neoplasm Recurrence, Local|Neoplasms, Second Primary [CANCER]
 - 8. Crohn Disease|Crohn`s disease [IMMUNE]
 - 9. Coronary Artery Disease|Diabetes Mellitus, Type 1|Diabetic Nephropathies [CARDIOVASCULAR]
 - 10. asthma [IMMUNE, PHARMACOGENOMIC]
 - 11. prostate cancer [CANCER, PHARMACOGENOMIC]
 - 12. Body Height [DEVELOPMENTAL]
 - 13. coronary disease[CARDIOVASCULAR]
 - 14. diabetes, type 1 [METABOLIC, OTHER, INFECTION, IMMUNE, CARDIOVASCULAR]
 - 15. Tobacco Use Disorder [CHEMDEPENDENCY]
 - 16. Pancreatic Neoplasms [CANCER]
 - 17. colorectal cancer; Tourette syndrome; bone density; pregnancy loss, recurrent; cleft lip without cleft palate; juvenile polyposis; cleft palate [CANCER]
 - 18. breast cancer [CANCER, PHARMACOGENOMIC]
 - 19. Obesity|POF - Premature ovarian failure|POLYCYSTIC OVARIAN SYNDROME|Polycystic Ovary Syndrome|Primary Ovarian Insufficiency|Puberty, Delayed|Puberty, Precocious|Thrombophilia|Tobacco Use Disorder [METABOLIC]
 - 20. Alzheimer`s disease [NEUROLOGICAL]
 - 21. Hepatopulmonary Syndrome|Liver Cirrhosis [UNKNOWN]
 - 22. Cleft Lip|Cleft Palate [DEVELOPMENTAL]
 - 23. bacteremia [INFECTION]
 - 24. Hypertension, Pulmonary [CARDIOVASCULAR]
 - 25. Graft vs Host Disease [IMMUNE]
 - 26. Bone Mineral Density [HEMATOLOGICAL, METABOLIC, CANCER, IMMUNE, RENAL, CARDIOVASCULAR]
 - 27. bone density [METABOLIC, NORMALVARIATION, UNKNOWN]
 - 28. Osteoarthritis, Hip|Osteoarthritis, Knee [METABOLIC, UNKNOWN]
 - 29. Crohn Disease [IMMUNE]
 - 30. Coronary Disease [CARDIOVASCULAR]
7. PTK2
- 1. Heart Rate [CARDIOVASCULAR]
 - 2. schizophrenia | autism [DEVELOPMENTAL, PSYCH]
 - 3. Leukemia, Myelogenous, Chronic, BCR-ABL Positive|Neovascularization, Pathologic [CANCER]
 - 4. HIV [INFECTION, IMMUNE, NEUROLOGICAL, PHARMACOGENOMIC]
 - 5. hepatocellular carcinoma [CANCER]
 - 6. Leukemia, Myelogenous, Chronic, BCR-ABL Positive [CANCER]
 - 7. Multiple Sclerosis [IMMUNE]
8. JUN
- 1. Crohn Disease| [IMMUNE]
 - 2. Cognitive performance [AGING, NEUROLOGICAL]
 - 3. alcohol consumption [CHEMDEPENDENCY]
 - 4. respiratory syncytial virus bronchiolitis [INFECTION]
 - 5. Heart Failure[CARDIOVASCULAR]
 - 6. ovarian cancer [METABOLIC, CANCER, PHARMACOGENOMIC]
 - 7. Type 2 Diabetes| edema | rosiglitazone [PHARMACOGENOMIC]
 - 8. Bronchiolitis, Viral|Respiratory Syncytial Virus Infections [INFECTION]
 - 9. breast cancer [CANCER, PHARMACOGENOMIC]
 - 10. Chronic renal failure|Kidney Failure, Chronic [RENAL]
 - 11. Psychomotor Performance [NEUROLOGICAL]
 - 12. Arthritis, Reactive|Campylobacter Infections|Salmonella Infections [INFECTION]
 - 13. Body Weights and Measures [METABOLIC]
9. SP1
- 1. Head and Neck Neoplasms|Neoplasm Recurrence, Local|Neoplasms, Second Primary [CANCER]
 - 2. plasma HDL cholesterol (HDL-C) levels [METABOLIC]
10. GRB10
- 1. intrauterine growth [REPRODUCTION]
 - 2. Scleroderma, Systemic [IMMUNE]
11. FHL2
- 1. Hypertension [CARDIOVASCULAR]
 - 2. Lipoproteins, VLDL [METABOLIC]
 - 3. Calcium [METABOLIC]
 - 4. Body Weight [METABOLIC]
 - 5. Body Mass Index [METABOLIC]
12. SHC1
- 1. longevity [AGING, CARDIOVASCULAR]
 - 2. diabetes, type 2 [METABOLIC, OTHER, IMMUNE, RENAL, CARDIOVASCULAR, PHARMACOGENOMIC]
 - 3. plasma HDL cholesterol (HDL-C) levels [METABOLIC]
 - 4. Tobacco Use Disorder [CHEMDEPENDENCY]
 - 5. breast cancer [CANCER, PHARMACOGENOMIC]
 - 6. Longevity [AGING]
13. HSP90AA1
- 1. asthma [IMMUNE, PHARMACOGENOMIC]
 - 2. Type 2 Diabetes| edema | rosiglitazone [PHARMACOGENOMIC]

3. breast cancer [CANCER, PHARMACOGENOMIC]
 4. Insulin Resistance|Polycystic Ovary Syndrome [REPRODUCTION, METABOLIC]
 5. Cleft Lip|Cleft Palate [DEVELOPMENTAL]
 6. bronchodilator response [IMMUNE]
14. NCOA2
1. Carotid Stenosis [CARDIOVASCULAR]
 2. prostate cancer [CANCER, PHARMACOGENOMIC]
 3. Carotid Arteries [CARDIOVASCULAR]
 4. plasma HDL cholesterol (HDL-C) levels [METABOLIC]
 5. Tobacco Use Disorder [CHEMDEPENDENCY]
 6. Type 2 Diabetes| edema | rosiglitazone [PHARMACOGENOMIC]
 7. breast cancer [CANCER, PHARMACOGENOMIC]
 8. bronchodilator response [IMMUNE]
 9. Bone Mineral Density [HEMATOLOGICAL, METABOLIC, CANCER, IMMUNE, RENAL, CARDIOVASCULAR]
 10. Bone necrosis|Osteonecrosis [METABOLIC]
15. KAT2B
1. ovarian cancer [METABOLIC, CANCER, PHARMACOGENOMIC]
16. DAXX
1. Precursor Cell Lymphoblastic Leukemia-Lymphoma [CANCER]
 2. diabetes, type 1 [METABOLIC, OTHER, INFECTION, IMMUNE, CARDIOVASCULAR]
 3. Lupus Erythematosus, Systemic [IMMUNE]
 4. Cholesterol [METABOLIC]
17. CEBPB
1. Behcet Syndrome [IMMUNE]
 2. systemic lupus erythematosus [OTHER, IMMUNE]
 3. Glucose [METABOLIC]
 4. plasma HDL cholesterol (HDL-C) levels [METABOLIC]
 5. Parkinson Disease [NEUROLOGICAL]
 6. Bone Mineral Density [HEMATOLOGICAL, METABOLIC, CANCER, IMMUNE, RENAL, CARDIOVASCULAR]
 7. obesity [DEVELOPMENTAL, METABOLIC, OTHER, AGING, CARDIOVASCULAR, PHARMACOGENOMIC]
18. HDAC1
1. epithelial ovarian cancer [CANCER]
 2. Huntington Disease [NEUROLOGICAL]
 3. Tobacco Use Disorder [CHEMDEPENDENCY]
 4. bronchodilator response [IMMUNE]
 5. Carcinoma, Hepatocellular|Liver carcinoma|Recurrence[CANCER]
19. MED1
1. Diabetes, Gestational|Gestational diabetes mellitus (disorder) [UNKNOWN]
 2. prostate cancer [CANCER, PHARMACOGENOMIC]
 3. plasma HDL cholesterol (HDL-C) levels [METABOLIC]
 4. breast cancer [CANCER, PHARMACOGENOMIC]
20. PTK2B
1. longevity [AGING, CARDIOVASCULAR]
 2. Lipoproteins [METABOLIC]
 3. Insulin Resistance [METABOLIC]
 4. hypertension [HEMATOLOGICAL, METABOLIC, OTHER, CHEMDEPENDENCY, RENAL, CARDIOVASCULAR, PHARMACOGENOMIC, UNKNOWN]
 5. HIV [INFECTION, IMMUNE, NEUROLOGICAL, PHARMACOGENOMIC]
 6. Cell Transformation, Neoplastic|Melanoma|Skin Neoplasms [CANCER]
 7. Tobacco Use Disorder [CHEMDEPENDENCY]
 8. Type 2 Diabetes| edema | rosiglitazone [PHARMACOGENOMIC]
 9. Chronic renal failure|Kidney Failure, Chronic [RENAL]
 10. Depressive Disorder, Major [IMMUNE, PSYCH]
21. CASP3
1. lymphoma, non-Hodgkin [CANCER]
 2. Mucocutaneous Lymph Node Syndrome [IMMUNE]
 3. Diabetic Nephropathies|Diabetic Nephropathy [UNKNOWN]
 4. Autism [PSYCH]
 5. esophageal adenocarcinoma [CANCER]
 6. Gastrointestinal Stromal Tumors [CANCER]
 7. Multiple Myeloma [CANCER]
 8. Leukemia, Lymphocytic, Chronic, B-Cell [CANCER]
 9. Adenocarcinoma|Neoplasms, Prostatic|Prostatic Neoplasms [CANCER]
 10. chronic obstructive pulmonary disease [OTHER, IMMUNE, CARDIOVASCULAR]
 11. Leukemia, Myelogenous, Chronic, BCR-ABL Positive|Neovascularization, Pathologic [CANCER]
 12. Endometrial Neoplasms [CANCER]
 13. bladder cancer [CANCER, PHARMACOGENOMIC]
 14. Adenocarcinoma|Lymphatic Metastasis|Stomach Neoplasms [CANCER]
 15. Lymphoma, Non-Hodgkin [CANCER]
 16. Hemoglobins [HEMATOLOGICAL]
 17. Hematocrit [HEMATOLOGICAL]

18. lung cancer [CANCER, PHARMACOGENOMIC]
 19. Carcinoma, Squamous Cell|Head and Neck Neoplasms [CANCER]
 20. Hodgkin Disease|Leukemia, Lymphocytic, Chronic, B-Cell|Lymphoproliferative Disorders|Waldenstrom Macroglobulinemia [CANCER]
 21. Type 2 Diabetes| edema | rosiglitazone [PHARMACOGENOMIC]
 22. colorectal cancer [CANCER, IMMUNE, PHARMACOGENOMIC]
 23. Chronic renal failure|Kidney Failure, Chronic [RENAL]
 24. benzene haematotoxicity [PHARMACOGENOMIC]
 25. Lymphoma, Non-Hodgkin|Lymphoma, Non-Hodgkin`s [CANCER]
 26. Bone Mineral Density [HEMATOLOGICAL, METABOLIC, CANCER, IMMUNE, RENAL, CARDIOVASCULAR]
 27. Leukemia, Myelogenous, Chronic, BCR-ABL Positive [CANCER]
 28. clubfoot [DEVELOPMENTAL]
 29. multiple sclerosis [IMMUNE, PHARMACOGENOMIC]
22. RELA
1. testicular cancer [CANCER]
 2. Arthritis, Rheumatoid|Rheumatoid Arthritis|Anti-TNF Response [IMMUNE]
 3. Multiple Myeloma [CANCER]
 4. normal variation [NORMALVARIATION, PHARMACOGENOMIC, UNKNOWN]
 5. plasma HDL cholesterol (HDL-C) levels [METABOLIC]
 6. Hodgkin Disease|Leukemia, Lymphocytic, Chronic, B-Cell|Lymphoproliferative Disorders|Waldenstrom Macroglobulinemia [CANCER]
 7. Type 2 Diabetes| edema | rosiglitazone [PHARMACOGENOMIC]
 8. breast cancer [CANCER, PHARMACOGENOMIC]
 9. Arthritis, Rheumatoid [IMMUNE]
 10. benzene haematotoxicity [PHARMACOGENOMIC]
 11. Hepatopulmonary Syndrome|Liver Cirrhosis [UNKNOWN]
 12. HIV Infections|[X]Human immunodeficiency virus disease [INFECTION]
23. PRKCD
1. Type 2 diabetes [METABOLIC]
 2. Tobacco Use Disorder [CHEMDEPENDENCY]
 3. Type 2 Diabetes| edema | rosiglitazone [PHARMACOGENOMIC]
24. MDM4
1. Neoplasms [CANCER]
 2. Cognitive performance [AGING, NEUROLOGICAL]
 3. Head and Neck Neoplasms|Neoplasm Recurrence, Local|Neoplasms, Second Primary [CANCER]
 4. prostate cancer [CANCER, PHARMACOGENOMIC]
 5. fertility [REPRODUCTION]
 6. Tobacco Use Disorder [CHEMDEPENDENCY]
 7. ovarian cancer [METABOLIC, CANCER, PHARMACOGENOMIC]
 8. Type 2 Diabetes| edema | rosiglitazone [PHARMACOGENOMIC]
 9. breast cancer [CANCER, PHARMACOGENOMIC]
 10. Psychomotor Performance [NEUROLOGICAL]
 11. Narcolepsy [NEUROLOGICAL]
25. HIF1A
1. Carcinoma, Squamous Cell|Lymphatic Metastasis|Mouth Neoplasms [CANCER]
 2. kidney cancer [CANCER, PHARMACOGENOMIC]
 3. oxygen consumption [OTHER]
 4. Altitude Sickness [OTHER]
 5. Stomach Neoplasms [CANCER]
 6. prostate cancer [CANCER, PHARMACOGENOMIC]
 7. Carcinoma, Renal Cell|Kidney Neoplasms [CANCER]
 8. hypoxia [OTHER, UNKNOWN]
 9. CD40 Ligand [IMMUNE]
 10. Pre-Eclampsia [REPRODUCTION, IMMUNE]
 11. Carcinoma, Transitional Cell|Urinary Bladder Neoplasms [CANCER]
 12. Type 2 Diabetes| edema | rosiglitazone [PHARMACOGENOMIC]
 13. diabetes, type 2; retinopathy, diabetic [VISION]
 14. colorectal cancer [CANCER, IMMUNE, PHARMACOGENOMIC]
 15. Carcinoma, Hepatocellular|LCC - Liver cell carcinoma|Liver neoplasms [CANCER]
 16. heart disease, ischemic [CARDIOVASCULAR, PHARMACOGENOMIC]
 17. Cellulitis|Obesity [METABOLIC]
 18. Breast Neoplasms|Carcinoma, Intraductal, Noninfiltrating|Hot Flashes|Neoplasm Invasiveness|Neovascularization, Pathologic [CANCER]
 19. Cleft Lip|Cleft Palate [DEVELOPMENTAL]
 20. Hepatopulmonary Syndrome|Liver Cirrhosis [UNKNOWN]
 21. esophageal cancer [INFECTION, CANCER, PHARMACOGENOMIC]
 22. longevity [AGING, CARDIOVASCULAR]
 23. power/sprint performance [OTHER]
 24. Uric Acid [RENAL]
 25. esophageal adenocarcinoma [CANCER]
 26. Anoxia [UNKNOWN]

27. diabetes, type 2 [METABOLIC, OTHER, IMMUNE, RENAL, CARDIOVASCULAR, PHARMACOGENOMIC]
 28. Peripheral Arterial Disease|Peripheral Arterial Diseases [CARDIOVASCULAR]
 29. cervical cancer endometrial cancer ovarian cancer [CANCER]
 30. erythrocytosis, idiopathic [HEMATOLOGICAL]
 31. BMI- Edema rosiglitazone or pioglitazone [PHARMACOGENOMIC]
 32. Blood Pressure [CARDIOVASCULAR]
 33. Hypercholesterolemia|LDLC levels [METABOLIC]
 34. Sleep Apnea, Obstructive [OTHER, UNKNOWN]
 35. lung cancer [CANCER, PHARMACOGENOMIC]
 36. Altitude Sickness|Anoxia [OTHER]
 37. Retinopathy of Prematurity [VISION]
 38. ovarian cancer [METABOLIC, CANCER, PHARMACOGENOMIC]
 39. stroke, ischemic [METABOLIC, CARDIOVASCULAR]
 40. Anoxia|Microsatellite Instability|Neoplasms [CANCER]
 41. Cardiovascular Diseases|Kidney Failure, Chronic [CARDIOVASCULAR]
 42. Giant Cell Arteritis|Temporal Arteritis [CARDIOVASCULAR]
 43. breast cancer [CANCER, PHARMACOGENOMIC]
 44. Chronic renal failure|Kidney Failure, Chronic [RENAL]
 45. osteonecrosis [METABOLIC]
 46. HIF-1alpha protein expression [CANCER]
 47. hypoxia | systemic sclerosis [IMMUNE]
 48. Carcinoma, Renal Cell|Gilbert Disease|Hyperbilirubinemia|Kidney Neoplasms|Renal Cell Carcinoma [CANCER]
26. FYN
1. Asthma [IMMUNE, UNKNOWN]
 2. Triglycerides [METABOLIC]
 3. Insulin [METABOLIC]
 4. blood pressure, arterial hypertension [CARDIOVASCULAR]
 5. Parkinson`s disease [METABOLIC, CHEMDEPENDENCY, CANCER, IMMUNE, NEUROLOGICAL, PHARMACOGENOMIC]
 6. Alzheimer`s Disease [OTHER, PSYCH, NEUROLOGICAL]
 7. Type 2 Diabetes| edema | rosiglitazone [PHARMACOGENOMIC]
 8. Alzheimer`s disease; schizophrenia [NEUROLOGICAL]
 9. Alcoholism| [CHEMDEPENDENCY]
 10. alcoholism [CHEMDEPENDENCY]
 11. schizophrenia; alcoholism [PSYCH]
 12. Coronary Artery Disease [CARDIOVASCULAR]
 13. Insulin Resistance [METABOLIC]
 14. Cleft Lip|Cleft Palate|Tooth Abnormalities [DEVELOPMENTAL]
 15. Bipolar Disorder [PSYCH]
 16. HIV [INFECTION, IMMUNE, NEUROLOGICAL, PHARMACOGENOMIC]
 17. Lupus Erythematosus, Systemic|Systemic lupus erythematosus [IMMUNE, UNKNOWN]
 18. schizophrenia [METABOLIC, OTHER, CHEMDEPENDENCY, IMMUNE, PSYCH, NEUROLOGICAL, CARDIOVASCULAR, PHARMACOGENOMIC]
 19. Waist-Hip Ratio [METABOLIC]
27. MAPK1
1. alcohol consumption [CHEMDEPENDENCY]
 2. Type 2 Diabetes| edema | rosiglitazone [PHARMACOGENOMIC]
 3. Narcolepsy [NEUROLOGICAL]
 4. Heart Rate [CARDIOVASCULAR]
 5. thyroid cancer [CANCER]
 6. HIV [INFECTION, IMMUNE, NEUROLOGICAL, PHARMACOGENOMIC]
 7. ovarian cancer [METABOLIC, CANCER, PHARMACOGENOMIC]
 8. breast cancer [CANCER, PHARMACOGENOMIC]
 9. Chronic renal failure|Kidney Failure, Chronic [RENAL]
 10. bronchodilator response [IMMUNE]
 11. Multiple Sclerosis [IMMUNE]
 12. Bulimia [PSYCH]
28. NFKB1
1. ulcerative colitis [IMMUNE, PHARMACOGENOMIC]
 2. Liver Cirrhosis, Biliary [METABOLIC, UNKNOWN]
 3. Carcinoma, Hepatocellular|Hepatitis B|Liver Cirrhosis|Liver Neoplasms [CANCER]
 4. Hodgkin Disease [CANCER, NEUROLOGICAL]
 5. Neoplasms [CANCER]
 6. Dengue Hemorrhagic Fever [INFECTION]
 7. Colonic Neoplasms|Rectal Neoplasms [CANCER]
 8. Crohn`s disease [IMMUNE, PHARMACOGENOMIC]
 9. Colorectal Cancer [CANCER]
 10. Arthritis, Rheumatoid|Rheumatoid Arthritis|Anti-TNF Response [IMMUNE]
 11. Hepatitis C, Chronic|Liver Cirrhosis [INFECTION]
 12. chronic obstructive pulmonary disease [OTHER, IMMUNE, CARDIOVASCULAR]
 13. lung injury after cardiopulmonary bypass [CARDIOVASCULAR]
 14. Stomach Neoplasms [CANCER]

15. normal variation [NORMALVARIATION, PHARMACOGENOMIC, UNKNOWN]
16. Parkinson`s disease [METABOLIC, CHEMDEPENDENCY, CANCER, IMMUNE, NEUROLOGICAL, PHARMACOGENOMIC]
17. Birth Weight[Leukemia|Leukemia, Myeloid, Acute|Precursor Cell Lymphoblastic Leukemia-Lymphoma [CANCER]
18. Alcoholism [CHEMDEPENDENCY, PHARMACOGENOMIC]
19. prostate cancer [CANCER, PHARMACOGENOMIC]
20. Postoperative Hemorrhage [UNKNOWN]
21. Body Height [DEVELOPMENTAL]
22. hepatocellular carcinoma [CANCER]
23. Graves Disease|Graves Ophthalmopathy|Graves` Disease|Thyroid associated ophthalmopathies [IMMUNE]
24. Tobacco Use Disorder [CHEMDEPENDENCY]
25. Hodgkin Disease|Leukemia, Lymphocytic, Chronic, B-Cell|Lymphoproliferative Disorders|Waldenstrom Macroglobulinemia [CANCER]
26. Type 2 Diabetes| edema | rosiglitazone [PHARMACOGENOMIC]
27. dermatitis and eczema [IMMUNE]
28. colorectal cancer [CANCER, IMMUNE, PHARMACOGENOMIC]
29. C-reactive protein [METABOLIC, NORMALVARIATION, IMMUNE, CARDIOVASCULAR]
30. ulcerative colitis; inflammatory bowel disease [IMMUNE]
31. Cardiomyopathy, Dilated [CARDIOVASCULAR]
32. Alzheimer`s disease [NEUROLOGICAL]
33. benzene haematotoxicity [PHARMACOGENOMIC]
34. ankylosing spondylitis [IMMUNE]
35. Psoriasis [IMMUNE]
36. Hepatopulmonary Syndrome|Liver Cirrhosis [UNKNOWN]
37. Endometriosis [REPRODUCTION, UNKNOWN]
38. Bone Mineral Density [HEMATOLOGICAL, METABOLIC, CANCER, IMMUNE, RENAL, CARDIOVASCULAR]
39. Carcinoma, Squamous Cell|Head and Neck Neoplasms|Recurrence [CANCER]
40. atherosclerosis [METABOLIC, CHEMDEPENDENCY, IMMUNE, CARDIOVASCULAR, VISION, UNKNOWN]
41. Glioblastoma|Glioma [CANCER]
42. Hip [METABOLIC]
43. Hepatitis C|Remission, Spontaneous [INFECTION]
44. Connective Tissue Diseases|Fetal Diseases|Inflammation|Musculoskeletal Diseases|Pregnancy Complications, Hematologic|Premature Birth|Skin Diseases [REPRODUCTION]
45. Carcinoma|Nasopharyngeal Neoplasms [CANCER]
46. adenocarcinoma [CANCER]
47. lupus erythematosus; rheumatoid arthritis [IMMUNE]
48. esophageal adenocarcinoma [CANCER]
49. Multiple Myeloma [CANCER]
50. rheumatoid arthritis [IMMUNE, PHARMACOGENOMIC]
51. Precursor Cell Lymphoblastic Leukemia-Lymphoma [CANCER]
52. Diabetes Mellitus, Type 2 [METABOLIC]
53. Carcinoid Tumor|Gastrointestinal Neoplasms|Neuroendocrine Tumors|Pancreatic Neoplasms [CANCER]
54. bladder cancer [CANCER, PHARMACOGENOMIC]
55. Crohn`s disease ulcerative colitis [IMMUNE, PHARMACOGENOMIC]
56. Chorioamnionitis|Fetal Membranes, Premature Rupture|Infection of amniotic sac and membranes|Obstetric Labor, Premature|Pre-Eclampsia|Premature Birth [REPRODUCTION]
57. sarcoidosis [OTHER, IMMUNE]
58. melanoma [CANCER]
59. arthritis, psoriatic [IMMUNE]
60. Lymphoma, Non-Hodgkin [CANCER]
61. Abortion, Spontaneous [REPRODUCTION]
62. colorectal cancer kidney cancer [CANCER]
63. Alcoholism|Liver Cirrhosis, Alcoholic [CHEMDEPENDENCY]
64. celiac disease [IMMUNE]
65. Crohn`s disease; ulcerative colitis; inflammatory bowel disease [IMMUNE]
66. Type 2 diabetes [METABOLIC]
67. Silicosis [IMMUNE, UNKNOWN]
68. lung cancer [CANCER, PHARMACOGENOMIC]
69. Schizophrenia [CHEMDEPENDENCY, IMMUNE, PSYCH, NEUROLOGICAL]
70. plasma HDL cholesterol (HDL-C) levels [METABOLIC]
71. Premature Birth [REPRODUCTION]
72. Hodgkin Disease|Inflammation [CANCER]
73. Meningeal Neoplasms|meningioma [CANCER]
74. diabetes, type 1 [METABOLIC, OTHER, INFECTION, IMMUNE, CARDIOVASCULAR]
75. Colorectal Neoplasms [CANCER]
76. breast cancer [CANCER, PHARMACOGENOMIC]
77. Arthritis, Rheumatoid [IMMUNE]
78. Chronic renal failure|Kidney Failure, Chronic [RENAL]
79. Body Weight [METABOLIC]
80. Obesity|POF - Premature ovarian failure|POLYCYSTIC OVARIAN SYNDROME|Polycystic Ovary Syndrome|Primary Ovarian Insufficiency|Puberty, Delayed|Puberty, Precocious|Thrombophilia|Tobacco Use Disorder [METABOLIC]
81. Chorioamnionitis|Fetal Membranes, Premature Rupture|Infection of amniotic sac and membranes [REPRODUCTION]

- 82. hepatitis C [INFECTION]
 - 83. inflammatory bowel disease [IMMUNE]
 - 84. Cardiomyopathy, Dilated|DCM - Dilated cardiomyopathy|Heart Failure [CARDIOVASCULAR]
 - 85. giant cell arteritis [CARDIOVASCULAR]
 - 86. Inflammation|Premature Birth [REPRODUCTION]
 - 87. Infection|Inflammation|Premature Birth [INFECTION]
 - 88. oral cancer [OTHER, CANCER]
 - 89. Behcet Syndrome [IMMUNE]
29. SMAD2
- 1. Hepatopulmonary Syndrome|Liver Cirrhosis [UNKNOWN]
 - 2. Cleft Lip|Cleft Palate [DEVELOPMENTAL]
 - 3. Hypertension, Pulmonary [CARDIOVASCULAR]
 - 4. Bone Mineral Density [HEMATOLOGICAL, METABOLIC, CANCER, IMMUNE, RENAL, CARDIOVASCULAR]
 - 5. esophageal adenocarcinoma [CANCER]
 - 6. inflammatory bowel disease | colorectal cancer [IMMUNE]
 - 7. Pancreatic Neoplasms [CANCER]
 - 8. colorectal cancer; Tourette syndrome; bone density; pregnancy loss, recurrent; cleft lip without cleft palate; juvenile polyposis; cleft palate [CANCER]
 - 9. Obesity|POF - Premature ovarian failure|POLYCYSTIC OVARIAN SYNDROME|Polycystic Ovary Syndrome|Primary Ovarian Insufficiency|Puberty, Delayed|Puberty, Precocious|Thrombophilia|Tobacco Use Disorder [METABOLIC]
 - 10. bone density [METABOLIC, NORMALVARIATION, UNKNOWN]
30. NBN
- 1. Natriuretic Peptide, Brain [NEUROLOGICAL]
 - 2. Brain Neoplasms|Glioma [CANCER]
 - 3. Neoplasms [CANCER]
 - 4. Leukemia, Myeloid|Myeloid Leukemia [CANCER]
 - 5. bladder cancer; cytogenetic studies [CANCER]
 - 6. chronic obstructive pulmonary disease [OTHER, IMMUNE, CARDIOVASCULAR]
 - 7. Laryngeal neoplasm|Laryngeal Neoplasms|Neoplasms, Multiple Primary [CANCER]
 - 8. Mouth Neoplasms|Precancerous Conditions [CANCER]
 - 9. Parkinson`s disease [METABOLIC, CHEMDEPENDENCY, CANCER, IMMUNE, NEUROLOGICAL, PHARMACOGENOMIC]
 - 10. prostate cancer [CANCER, PHARMACOGENOMIC]
 - 11. Breast Neoplasms|Chromosome Breakage|Colorectal Neoplasms|Genital Neoplasms, Female|Mammary Neoplasms|Neoplasms|Nijmegen Breakage Syndrome|Stomach Neoplasms [CANCER]
 - 12. Medulloblastoma|Nijmegen Breakage Syndrome [CANCER]
 - 13. leukemia [OTHER, CANCER, PHARMACOGENOMIC]
 - 14. Tobacco Use Disorder [CHEMDEPENDENCY]
 - 15. Hodgkin Disease|Leukemia, Lymphocytic, Chronic, B-Cell|Lymphoproliferative Disorders|Waldenstrom Macroglobulinemia [CANCER]
 - 16. Colorectal Neoplasms [CANCER]
 - 17. colorectal cancer [CANCER, IMMUNE, PHARMACOGENOMIC]
 - 18. cancer; breast cancer [CANCER]
 - 19. Nijmegen Breakage Syndrome [UNKNOWN]
 - 20. benzene haematotoxicity [PHARMACOGENOMIC]
 - 21. Chromosome Aberrations|DNA Damage [OTHER]
 - 22. benzene toxicity [METABOLIC, PHARMACOGENOMIC]
 - 23. Cleft Lip|Cleft Palate [DEVELOPMENTAL]
 - 24. Adenocarcinoma|Pancreatic Neoplasms [CANCER]
 - 25. lymphoma, non-Hodgkin [CANCER]
 - 26. Lung Neoplasms|Neoplasm of Lung|Neoplasms [CANCER]
 - 27. stomach cancer [CANCER, PHARMACOGENOMIC]
 - 28. Chromosomal Instability|Lymphoma|Neoplasms|Nijmegen Breakage Syndrome [CANCER]
 - 29. esophageal adenocarcinoma [CANCER]
 - 30. epithelial ovarian cancer [CANCER]
 - 31. Leukemia, Lymphocytic, Chronic, B-Cell [CANCER]
 - 32. Brain Neoplasms|Glioma|Meningeal Neoplasms|meningioma|Neuroma, Acoustic|Neuromas, Acoustic [CANCER]
 - 33. lymphoma, Non-Hodgkin`s [CANCER]
 - 34. Natural Menopause|Obesity|POF - Premature ovarian failure|POLYCYSTIC OVARIAN SYNDROME|Polycystic Ovary Syndrome|Primary Ovarian Insufficiency|Puberty, Delayed|Puberty, Precocious|Thrombophilia|Tobacco Use Disorder [METABOLIC]
 - 35. bladder cancer [CANCER, PHARMACOGENOMIC]
 - 36. melanoma [CANCER]
 - 37. Lymphoma, Non-Hodgkin [CANCER]
 - 38. lung cancer [CANCER, PHARMACOGENOMIC]
 - 39. Thyroid Neoplasms [CANCER]
 - 40. Brain Neoplasms|Glioblastoma [CANCER]
 - 41. cytogenetic studies [OTHER]
 - 42. ovarian cancer [METABOLIC, CANCER, PHARMACOGENOMIC]
 - 43. breast cancer [CANCER, PHARMACOGENOMIC]
 - 44. Chronic renal failure|Kidney Failure, Chronic [RENAL]
 - 45. Lupus Erythematosus, Systemic|Systemic lupus erythematosus [IMMUNE, UNKNOWN]
 - 46. skin cancer, non-melanoma [CANCER]

47. Leukemia [CANCER]
48. Chromosome Aberrations|Chromosome abnormality [UNKNOWN]
49. Lymphoma, Non-Hodgkin|Lymphoma, Non-Hodgkin`s [CANCER]
50. leukemia, lymphoid; lymphoma [CANCER]
51. multiple sclerosis[IMMUNE, PHARMACOGENOMIC]
52. Uterine Cervical Neoplasms [CANCER]
53. Lymphoma, Follicular|Lymphoma, Large B-Cell, Diffuse [CANCER]
31. UBE2I
1. Breast Neoplasms|Lymphatic Metastasis [CANCER]
 2. Alzheimer`s disease [NEUROLOGICAL]
 3. lung cancer [CANCER, PHARMACOGENOMIC]
 4. plasma HDL cholesterol (HDL-C) levels [METABOLIC]
 5. breast cancer [CANCER, PHARMACOGENOMIC]
32. IKBKB
1. Arthritis, Rheumatoid|Rheumatoid Arthritis|Anti-TNF Response [IMMUNE]
 2. Hodgkin Disease|Leukemia, Lymphocytic, Chronic, B-Cell|Lymphoproliferative Disorders|Waldenstrom Macroglobulinemia [CANCER]
 3. colorectal cancer [CANCER, IMMUNE, PHARMACOGENOMIC]
 4. benzene haematotoxicity [PHARMACOGENOMIC]
 5. Bone Mineral Density [HEMATOLOGICAL, METABOLIC, CANCER, IMMUNE, RENAL, CARDIOVASCULAR]
 6. Hepatitis C|Remission, Spontaneous [INFECTION]
 7. Multiple Myeloma [CANCER]
 8. diabetes, type 2 [METABOLIC, OTHER, IMMUNE, RENAL, CARDIOVASCULAR, PHARMACOGENOMIC]
 9. respiratory syncytial virus bronchiolitis [INFECTION]
 10. Lymphoma, Non-Hodgkin [CANCER]
 11. thyroid cancer [CANCER]
 12. HIV [INFECTION, IMMUNE, NEUROLOGICAL, PHARMACOGENOMIC]
 13. Bronchiolitis, Viral|Respiratory Syncytial Virus Infections [INFECTION]
 14. Arthritis, Rheumatoid [IMMUNE]
 15. Asthma|Bronchiolitis, Viral|Respiratory Syncytial Virus Infections [INFECTION]
33. NCOA3
1. response to treatment for acute lymphoblastic leukemia[PHARMACOGENOMIC]
 2. chronic obstructive pulmonary disease [OTHER, IMMUNE, CARDIOVASCULAR]
 3. quantitative calcaneal ultrasound [OTHER]
 4. Alcoholism [CHEMDEPENDENCY, PHARMACOGENOMIC]
 5. prostate cancer [CANCER, PHARMACOGENOMIC]
 6. Type 2 Diabetes| edema | rosiglitazone [PHARMACOGENOMIC]
 7. mammographic density [REPRODUCTION, OTHER]
 8. Bone Mineral Density [HEMATOLOGICAL, METABOLIC, CANCER, IMMUNE, RENAL, CARDIOVASCULAR]
 9. insulin-like growth factor-1; estrogen metabolism [NORMALVARIATION, UNKNOWN]
 10. obesity, localized [METABOLIC]
 11. epithelial ovarian cancer [CANCER]
 12. Precursor Cell Lymphoblastic Leukemia-Lymphoma [CANCER]
 13. Endometrial Neoplasms [CANCER]
 14. bladder cancer [CANCER, PHARMACOGENOMIC]
 15. Lymphoma, Non-Hodgkin [CANCER]
 16. lung cancer [CANCER, PHARMACOGENOMIC]
 17. plasma HDL cholesterol (HDL-C) levels [METABOLIC]
 18. metabolic syndrome [METABOLIC, CARDIOVASCULAR]
 19. bone mass IGF-I levels sex steroid hormones [METABOLIC]
 20. ovarian cancer [METABOLIC, CANCER, PHARMACOGENOMIC]
 21. breast cancer [CANCER, PHARMACOGENOMIC]
 22. quantitative calcaneal ultrasounds [OTHER]
34. SMAD4
1. Adenocarcinoma|Carcinoma, Adenosquamous|Pancreatic Neoplasms [CANCER]
 2. Gastrointestinal Neoplasms|HHT - Hereditary hemorrhagic telangiectasia|Intestinal Polyposis|Neoplastic Syndromes, Hereditary|Telangiectasia, Hereditary Hemorrhagic [CANCER]
 3. Stomach Neoplasms [CANCER]
 4. juvenile polyposis syndrome [OTHER]
 5. juvenile polyposis [OTHER]
 6. Adenomatous Polyposis Coli|Colorectal Neoplasms|Microsatellite Instability [CANCER]
 7. Adenocarcinoma|Carcinoma, Squamous Cell|Colorectal Neoplasms|Squamous cell carcinoma [CANCER]
 8. Type 2 Diabetes| edema | rosiglitazone [PHARMACOGENOMIC]
 9. pancreas adenocarcinomas [CANCER]
 10. Hepatopulmonary Syndrome|Liver Cirrhosis [UNKNOWN]
 11. Cleft Lip|Cleft Palate [DEVELOPMENTAL]
 12. Hypertension, Pulmonary [CARDIOVASCULAR]
 13. Bone Mineral Density [HEMATOLOGICAL, METABOLIC, CANCER, IMMUNE, RENAL, CARDIOVASCULAR]
 14. POLYCYSTIC OVARIAN SYNDROME|Polycystic Ovary Syndrome [REPRODUCTION]
 15. Intestinal Polyposis [UNKNOWN]
 16. polyposis, juvenile [OTHER]

17. Hemochromatosis [HEMATOLOGICAL, METABOLIC]
18. thyroid cancer [CANCER]
19. diabetes, type 1 [METABOLIC, OTHER, INFECTION, IMMUNE, CARDIOVASCULAR]
20. Pancreatic Neoplasms [CANCER]
21. colorectal cancer; Tourette syndrome; bone density; pregnancy loss, recurrent; cleft lip without cleft palate; juvenile polyposis; cleft palate [CANCER]
22. Obesity|POF - Premature ovarian failure|POLYCYSTIC OVARIAN SYNDROME|Polycystic Ovary Syndrome|Primary Ovarian Insufficiency|Puberty, Delayed|Puberty, Precocious|Thrombophilia|Tobacco Use Disorder [METABOLIC]
23. Juvenile polyposis syndrome; polyposis, gastric [OTHER]
24. Carcinoma, Pancreatic Ductal|Pancreatic Neoplasms [CANCER]
25. bone density [METABOLIC, NORMALVARIATION, UNKNOWN]
26. Disease Models, Animal|Neoplasms, Germ Cell and Embryonal|Testicular Neoplasms [CANCER]
35. PRKZ
 1. Intuition[PSYCH]
 2. Body Height [DEVELOPMENTAL]
 3. Type 2 Diabetes| edema | rosiglitazone [PHARMACOGENOMIC]
 4. diabetes, type 2 [METABOLIC, OTHER, IMMUNE, RENAL, CARDIOVASCULAR, PHARMACOGENOMIC]
 5. Type 2 diabetes [METABOLIC]
36. CDK6
 1. Height [DEVELOPMENTAL, NORMALVARIATION]
 2. head and neck cancer [CANCER, PHARMACOGENOMIC]
 3. ER positive [CANCER]
 4. Arthritis, Juvenile Rheumatoid|Arthritis, Rheumatoid|Chronic Childhood Arthritis|Rheumatoid Arthritis [IMMUNE]
 5. Mouth Neoplasms|Precancerous Conditions [CANCER]
 6. Body Height [DEVELOPMENTAL]
 7. Carcinoma, Medullary|Medullary carcinoma|thyroid neoplasm|Thyroid Neoplasms [CANCER]
 8. Type 2 Diabetes| edema | rosiglitazone [PHARMACOGENOMIC]
 9. Bone Mineral Density [HEMATOLOGICAL, METABOLIC, CANCER, IMMUNE, RENAL, CARDIOVASCULAR]
 10. Arthritis, Rheumatoid [IMMUNE]
 11. Neutrophils [IMMUNE]
 12. esophageal adenocarcinoma [CANCER]
 13. Leukemia, Lymphocytic, Chronic, B-Cell [CANCER]
 14. rheumatoid arthritis [IMMUNE, PHARMACOGENOMIC]
 15. height [DEVELOPMENTAL, NORMALVARIATION]
 16. Wegener`s granulomatosis [OTHER, IMMUNE, UNKNOWN]
 17. bladder cancer [CANCER, PHARMACOGENOMIC]
 18. diabetes, type 1 [METABOLIC, OTHER, INFECTION, IMMUNE, CARDIOVASCULAR]
 19. Arthritis, Rheumatoid|Rheumatoid Arthritis [IMMUNE]
 20. ovarian cancer [METABOLIC, CANCER, PHARMACOGENOMIC]
 21. Crohn Disease|Crohn`s disease|Growth Disorders [IMMUNE]
 22. breast cancer [CANCER, PHARMACOGENOMIC]
 23. Arthritis, Rheumatoid [IMMUNE]
 24. Chronic renal failure|Kidney Failure, Chronic [RENAL]
 25. Leukocyte Count [HEMATOLOGICAL]
37. RXRA
 1. Coronary Restenosis|Coronary Stenosis [CARDIOVASCULAR]
 2. chronic obstructive pulmonary disease [OTHER, IMMUNE, CARDIOVASCULAR]
 3. Coronary Disease|Coronary heart disease|Inflammation|Insulin Resistance [CARDIOVASCULAR]
 4. normal variation [NORMALVARIATION, PHARMACOGENOMIC, UNKNOWN]
 5. Adenoma|Colonic Neoplasms|Recurrence [CANCER]
 6. prostate cancer [CANCER, PHARMACOGENOMIC]
 7. Carcinoma, Renal Cell|Kidney Neoplasms [CANCER]
 8. Tobacco Use Disorder [CHEMDEPENDENCY]
 9. Type 2 Diabetes| edema | rosiglitazone [PHARMACOGENOMIC]
 10. colorectal cancer [CANCER, IMMUNE, PHARMACOGENOMIC]
 11. Alzheimer`s disease [NEUROLOGICAL]
 12. Bone Mineral Density [HEMATOLOGICAL, METABOLIC, CANCER, IMMUNE, RENAL, CARDIOVASCULAR]
 13. psoriasis [IMMUNE]
 14. Bile Duct Neoplasms|Gallbladder Neoplasms|Gallstones [CANCER]
 15. atherosclerosis, coronary hyperlipidemia [CARDIOVASCULAR]
 16. Coronary Artery Disease [CARDIOVASCULAR]
 17. Head and Neck Neoplasms|Neoplasm Recurrence, Local|Neoplasms, Second Primary [CANCER]
 18. Heart Failure [CARDIOVASCULAR]
 19. bladder cancer [CANCER, PHARMACOGENOMIC]
 20. schizophrenia; autism; alcoholism; bipolar disorder; attention deficit hyperactivity disorder [PSYCH]
 21. Hypercholesterolemia|LDLC levels [METABOLIC]
 22. lung cancer [CANCER, PHARMACOGENOMIC]
 23. plasma HDL cholesterol (HDL-C) levels [METABOLIC]
 24. Platelet Count [HEMATOLOGICAL]
 25. Chronic renal failure|Kidney Failure, Chronic [RENAL]
 26. Body Weight [METABOLIC]

27. rubella vaccine [IMMUNE]
 28. Coronary Disease [CARDIOVASCULAR]
38. ADRBK1
 1. Type 2 Diabetes| edema | rosiglitazone [PHARMACOGENOMIC]
 2. Heart Failure[CARDIOVASCULAR]
 3. Bulimia [PSYCH]
39. NCOA6
 1. Birth Weight|Diabetes Mellitus [METABOLIC]
 2. Tobacco Use Disorder [CHEMDEPENDENCY]
 3. lung cancer [CANCER, PHARMACOGENOMIC]
 4. plasma HDL cholesterol (HDL-C) levels[METABOLIC]
40. THBS1
 1. prostate cancer [CANCER, PHARMACOGENOMIC]
 2. Type 2 Diabetes| edema | rosiglitazone [PHARMACOGENOMIC]
 3. colorectal cancer [CANCER, IMMUNE, PHARMACOGENOMIC]
 4. Hepatopulmonary Syndrome|Liver Cirrhosis [UNKNOWN]
 5. atherosclerosis [METABOLIC, CHEMDEPENDENCY, IMMUNE, CARDIOVASCULAR, VISION, UNKNOWN]
 6. myocardial infarct; atherosclerosis, coronary [CARDIOVASCULAR]
 7. Acute Coronary Syndrome| [CARDIOVASCULAR]
 8. myocardial infarct [CARDIOVASCULAR, PHARMACOGENOMIC]
 9. esophageal adenocarcinoma[CANCER]
 10. Chronic Lymphocytic Leukemia|Leukemia, Lymphocytic, Chronic, B-Cell|Lymphoma|Syndrome [CANCER]
 11. metabolism disorders [METABOLIC]
 12. Chorioamnionitis|Fetal Membranes, Premature Rupture|Infection of amniotic sac and membranes|Obstetric Labor, Premature|Pre-Eclampsia|Premature Birth [REPRODUCTION]
 13. brain hemorrhage; stroke; stroke, lacunar [CARDIOVASCULAR]
 14. Chronic renal failure|Kidney Failure, Chronic [RENAL]
 15. Chorioamnionitis|Fetal Membranes, Premature Rupture|Infection of amniotic sac and membranes [REPRODUCTION]
 16. Myocardial Infarction [CARDIOVASCULAR, UNKNOWN]
41. RAD51
 1. breast cancer; ovarian cancer [CANCER]
 2. Brain Neoplasms|Glioma [CANCER]
 3. head and neck cancer [CANCER, PHARMACOGENOMIC]
 4. Neoplasms [CANCER]
 5. Breast Neoplasms| [CANCER]
 6. chronic obstructive pulmonary disease [OTHER, IMMUNE, CARDIOVASCULAR]
 7. prostate cancer [CANCER, PHARMACOGENOMIC]
 8. leukemia [OTHER, CANCER, PHARMACOGENOMIC]
 9. hematotoxicity [OTHER]
 10. Hodgkin Disease|Leukemia, Lymphocytic, Chronic, B-Cell|Lymphoproliferative Disorders|Waldenstrom Macroglobulinemia [CANCER]
 11. Colorectal Neoplasms [CANCER]
 12. colorectal cancer[CANCER, IMMUNE, PHARMACOGENOMIC]
 13. brain cancer [CANCER, PHARMACOGENOMIC]
 14. benzene haematotoxicity [PHARMACOGENOMIC]
 15. Adenocarcinoma|Pancreatic Neoplasms [CANCER]
 16. Carcinoma, Papillary|Thyroid Neoplasms [CANCER]
 17. Leukemia, Myeloid, Acute [CANCER]
 18. leukemia, myeloid [CANCER, PHARMACOGENOMIC]
 19. stomach cancer [CANCER, PHARMACOGENOMIC]
 20. esophageal adenocarcinoma [CANCER]
 21. epithelial ovarian cancer [CANCER]
 22. Leukemia, Lymphocytic, Chronic, B-Cell [CANCER]
 23. head and neck cancer mutagen sensitivity [CANCER]
 24. Brain Neoplasms|Glioma|Meningeal Neoplasms|meningioma|Neuroma, Acoustic|Neuromas, Acoustic [CANCER]
 25. bladder cancer [CANCER, PHARMACOGENOMIC]
 26. Carcinoma, Squamous Cell|Head and Neck Neoplasms|Precancerous Conditions|Squamous cell carcinoma [CANCER]
 27. Adenocarcinoma|Carcinoma, Squamous Cell|Deglutition Disorders|Head and Neck Neoplasms|Radiodermatitis [CANCER]
 28. breast cancer|ovarian cancer [CANCER]
 29. lung cancer [CANCER, PHARMACOGENOMIC]
 30. Thyroid Neoplasms [CANCER]
 31. DNA Damage [OTHER]
 32. cytogenetic studies [OTHER]
 33. ovarian cancer [METABOLIC, CANCER, PHARMACOGENOMIC]
 34. breast cancer [CANCER, PHARMACOGENOMIC]
 35. Chromosome Aberrations|Chromosome abnormality [UNKNOWN]
 36. Lymphoma, Non-Hodgkin|Lymphoma, Non-Hodgkin`s [CANCER]
 37. multiple sclerosis[IMMUNE, PHARMACOGENOMIC]
 38. Myelodysplastic Syndromes [CANCER, UNKNOWN]
 39. Leukemia, Myeloid, Acute|Recurrence [CANCER]
42. YWHAB

1. Autism [PSYCH]
 2. systemic lupus erythematosus [OTHER, IMMUNE]
43. GSK3B
1. major depressive disorder [PSYCH, PHARMACOGENOMIC]
 2. chronic obstructive pulmonary disease [OTHER, IMMUNE, CARDIOVASCULAR]
 3. alcohol consumption [CHEMDEPENDENCY]
 4. Parkinson's disease [METABOLIC, CHEMDEPENDENCY, CANCER, IMMUNE, NEUROLOGICAL, PHARMACOGENOMIC]
 5. Dyskinesia, Drug-Induced|Movement Disorders [PHARMACOGENOMIC]
 6. Alcoholism [CHEMDEPENDENCY, PHARMACOGENOMIC]
 7. hepatocellular carcinoma. [CANCER]
 8. Alzheimer's Disease [OTHER, PSYCH, NEUROLOGICAL]
 9. Type 2 Diabetes| edema | rosiglitazone [PHARMACOGENOMIC]
 10. Alzheimer's disease [NEUROLOGICAL]
 11. Bone Mineral Density [HEMATOLOGICAL, METABOLIC, CANCER, IMMUNE, RENAL, CARDIOVASCULAR]
 12. depression [REPRODUCTION, METABOLIC, INFECTION, IMMUNE, PSYCH, NEUROLOGICAL, CARDIOVASCULAR, PHARMACOGENOMIC]
 13. polycystic ovary syndrome [REPRODUCTION, METABOLIC]
 14. stomach cancer [CANCER, PHARMACOGENOMIC]
 15. Alzheimers disease [NEUROLOGICAL]
 16. Weight Gain [METABOLIC]
 17. esophageal adenocarcinoma [CANCER]
 18. bipolar disorder schizophrenia [PSYCH]
 19. bipolar disorder [CHEMDEPENDENCY, PSYCH, PHARMACOGENOMIC]
 20. Bone Diseases|Multiple Myeloma [CANCER]
 21. Parkinsons disease [NEUROLOGICAL]
 22. bladder cancer [CANCER, PHARMACOGENOMIC]
 23. methamphetamine abuse schizophrenia [CHEMDEPENDENCY]
 24. BMI- Edema rosiglitazone or pioglitazone [PHARMACOGENOMIC]
 25. Hypercholesterolemia|LDLC levels [METABOLIC]
 26. lung cancer [CANCER, PHARMACOGENOMIC]
 27. Stroke [NEUROLOGICAL, CARDIOVASCULAR]
 28. plasma HDL cholesterol (HDL-C) levels [METABOLIC]
 29. Polycystic Ovary Syndrome [REPRODUCTION]
 30. schizophrenia; bipolar disorder [PSYCH]
 31. Dyskinesia, Drug-Induced [UNKNOWN]
 32. breast cancer [CANCER, PHARMACOGENOMIC]
 33. schizophrenia [METABOLIC, OTHER, CHEMDEPENDENCY, IMMUNE, PSYCH, NEUROLOGICAL, CARDIOVASCULAR, PHARMACOGENOMIC]
 34. psychotic symptoms in mood disorders [PSYCH]
 35. Bulimia [PSYCH]
44. AHR
1. Thyrotropin [CARDIOVASCULAR]
 2. chronic obstructive pulmonary disease [OTHER, IMMUNE, CARDIOVASCULAR]
 3. Cholesterol, HDL [METABOLIC]
 4. lung cancer; CYP1A1 inducibility [CANCER]
 5. Lung Neoplasms|Occupational Diseases [CANCER]
 6. dementia [OTHER, PSYCH, NEUROLOGICAL, CARDIOVASCULAR]
 7. Colorectal Neoplasms [CANCER]
 8. colorectal cancer [CANCER, IMMUNE, PHARMACOGENOMIC]
 9. Alzheimer's disease [NEUROLOGICAL]
 10. Cleft Lip|Cleft Palate [DEVELOPMENTAL]
 11. blood pressure, arterial [CARDIOVASCULAR, PHARMACOGENOMIC]
 12. lymphoma [CANCER, PHARMACOGENOMIC]
 13. Heart Rate [CARDIOVASCULAR]
 14. 1-hydroxypyrene, urinary [METABOLIC]
 15. azoospermia infertility, male oligospermia [REPRODUCTION]
 16. esophageal adenocarcinoma [CANCER]
 17. micropenis [DEVELOPMENTAL, OTHER]
 18. Multiple Myeloma [CANCER]
 19. Clozapine [PHARMACOGENOMIC]
 20. lymphoma, Non-Hodgkin's [CANCER]
 21. CYP1A1 levels in lung tissue [METABOLIC]
 22. bladder cancer [CANCER, PHARMACOGENOMIC]
 23. Lymphoma, Non-Hodgkin [CANCER]
 24. lung cancer [CANCER, PHARMACOGENOMIC]
 25. coke-oven toxicity [METABOLIC]
 26. endometriosis [REPRODUCTION]
 27. azoospermia; oligospermia [REPRODUCTION]
 28. Laryngeal neoplasm|Laryngeal Neoplasms|Neoplasms, Second Primary|Neoplasms, Squamous Cell [CANCER]
 29. breast cancer [CANCER, PHARMACOGENOMIC]
 30. Chronic renal failure|Kidney Failure, Chronic [RENAL]

31. Myocardial Infarction [CARDIOVASCULAR, UNKNOWN]
 32. macular degeneration [VISION]
45. MAPK3
 1. Autism [PSYCH]
 2. alcohol consumption [CHEMDEPENDENCY]
 3. Bone Mineral Density [HEMATOLOGICAL, METABOLIC, CANCER, IMMUNE, RENAL, CARDIOVASCULAR]
 4. plasma HDL cholesterol (HDL-C) levels [METABOLIC]
 5. bronchodilator response [IMMUNE]
46. MDC1
 1. Adenocarcinoma|Pancreatic Neoplasms [CANCER]
 2. Leukemia, Lymphocytic, Chronic, B-Cell [CANCER]
 3. Behcet Syndrome [IMMUNE]
 4. Abortion, Spontaneous [REPRODUCTION]
 5. Lupus Erythematosus, Systemic [IMMUNE]
 6. Prostatic Neoplasms [CANCER]
47. CD2
 1. Arthritis, Rheumatoid [IMMUNE]
 2. Waist-Hip Ratio [METABOLIC]
48. CD28
 1. Asthma [IMMUNE, UNKNOWN]
 2. Asthma|Hypersensitivity, Immediate [IMMUNE]
 3. Celiac disease [IMMUNE]
 4. Hodgkin Disease|Leukemia, Lymphocytic, Chronic, B-Cell|Lymphoproliferative Disorders|Waldenstrom Macroglobulinemia [CANCER]
 5. colorectal cancer [CANCER, IMMUNE, PHARMACOGENOMIC]
 6. benzene haematotoxicity [PHARMACOGENOMIC]
 7. Asthma. Atopy. specific IgE. total serum IgE [IMMUNE]
 8. Asthma [IMMUNE]
 9. kidney transplantation [RENAL]
 10. lymphoma, non-Hodgkin [CANCER]
 11. Hepatitis C|Remission, Spontaneous [INFECTION]
 12. cholangitis, sclerosing [METABOLIC, IMMUNE]
 13. cervical squamous cell carcinoma [CANCER]
 14. Pemphigus [IMMUNE]
 15. Multiple Myeloma [CANCER]
 16. Leukemia, Lymphocytic, Chronic, B-Cell [CANCER]
 17. Precursor Cell Lymphoblastic Leukemia-Lymphoma [CANCER]
 18. respiratory syncytial virus bronchiolitis [INFECTION]
 19. melanoma [CANCER]
 20. diabetes, type 1; celiac disease; myasthenia gravis [IMMUNE]
 21. celiac disease [IMMUNE]
 22. Behcet's disease [IMMUNE]
 23. kidney allograft function [RENAL]
 24. diabetes, type 1 [METABOLIC, OTHER, INFECTION, IMMUNE, CARDIOVASCULAR]
 25. Arthritis, Rheumatoid|Rheumatoid Arthritis [IMMUNE]
 26. Celiac Disease [IMMUNE]
 27. Bronchiolitis, Viral|Respiratory Syncytial Virus Infections [INFECTION]
 28. Arthritis, Rheumatoid [IMMUNE]
 29. Chronic renal failure|Kidney Failure, Chronic [RENAL]
 30. Lupus Erythematosus, Systemic|Systemic lupus erythematosus [IMMUNE, UNKNOWN]
 31. Diabetes mellitus type II|Diabetes Mellitus, Type 2 [METABOLIC]
 32. Asthma|Bronchiolitis, Viral|Respiratory Syncytial Virus Infections [INFECTION]
 33. antibiotic-induced cutaneous allergic reactions [IMMUNE]
 34. cervical cancer [INFECTION, CANCER, PHARMACOGENOMIC]
 35. multiple sclerosis [IMMUNE, PHARMACOGENOMIC]
49. LYN
 1. several psychiatric disorders [PSYCH]
 2. Height [DEVELOPMENTAL, NORMALVARIATION]
 3. Tobacco Use Disorder [CHEMDEPENDENCY]
 4. height [DEVELOPMENTAL, NORMALVARIATION]
 5. HIV [INFECTION, IMMUNE, NEUROLOGICAL, PHARMACOGENOMIC]
 6. Lupus Erythematosus, Systemic [IMMUNE]
 7. Body Weight [METABOLIC]
 8. Lupus Erythematosus, Systemic|Systemic lupus erythematosus [IMMUNE, UNKNOWN]
 9. Autoimmune Diseases|Lupus Erythematosus, Systemic|Systemic lupus erythematosus [IMMUNE]
50. FOXO4
 1. body mass [METABOLIC, CARDIOVASCULAR, PHARMACOGENOMIC]
51. HIPK2
 1. Tobacco Use Disorder [CHEMDEPENDENCY]
 2. Diabetes Mellitus, Type 2 [METABOLIC]
52. STAT2

1. Dengue Hemorrhagic Fever [INFECTION]
 2. Hepatitis C, Chronic|Liver Cirrhosis [INFECTION]
 3. Birth Weight|Leukemia|Leukemia, Myeloid, Acute|Precursor Cell Lymphoblastic Leukemia-Lymphoma [CANCER]
 4. Type 2 Diabetes| edema | rosiglitazone [PHARMACOGENOMIC]
 5. Psoriasis [IMMUNE]
 6. Asthma| [IMMUNE]
 7. psoriasis [IMMUNE]
 8. Hepatitis C|Remission, Spontaneous [INFECTION]
 9. Hepatitis C, Chronic|Multiple Sclerosis [INFECTION]
 10. Hepatitis C, Chronic|Neutropenia|Thrombocytopenia [INFECTION]
 11. thyroid cancer [CANCER]
 12. Macular Degeneration [VISION]
 13. Meningeal Neoplasms|meningioma [CANCER]
53. KAT2A
1. HIV Infections|[X]Human immunodeficiency virus disease [INFECTION]
54. NR4A1
1. Diabetes mellitus type II|Diabetes Mellitus, Type 2|Insulin Resistance [METABOLIC]
 2. Schizophrenia|bipolar disorder [PSYCH]
 3. Narcolepsy [NEUROLOGICAL]
 4. tardive dyskinesia [OTHER, PSYCH, NEUROLOGICAL, PHARMACOGENOMIC]
55. TRAF6
1. Dengue Hemorrhagic Fever [INFECTION]
 2. Hodgkin Disease|Leukemia, Lymphocytic, Chronic, B-Cell|Lymphoproliferative Disorders|Waldenstrom Macroglobulinemia [CANCER]
 3. Type 2 Diabetes| edema | rosiglitazone [PHARMACOGENOMIC]
 4. Alzheimer`s disease [NEUROLOGICAL]
 5. benzene haematotoxicity [PHARMACOGENOMIC]
 6. Bone Mineral Density [HEMATOLOGICAL, METABOLIC, CANCER, IMMUNE, RENAL, CARDIOVASCULAR]
 7. Narcolepsy [NEUROLOGICAL]
 8. Hepatitis C|Remission, Spontaneous [INFECTION]
 9. antibody response to pertussis vaccination [IMMUNE]
 10. Carcinoma|Thyroid Neoplasms [CANCER]
 11. Multiple Myeloma [CANCER]
 12. Crohn`s disease ulcerative colitis[IMMUNE, PHARMACOGENOMIC]
 13. HIV [INFECTION, IMMUNE, NEUROLOGICAL, PHARMACOGENOMIC]
 14. Arthritis, Rheumatoid|Rheumatoid Arthritis [IMMUNE]
 15. Arthritis, Rheumatoid [IMMUNE]
 16. Lymphoma, Non-Hodgkin|Lymphoma, Non-Hodgkin`s [CANCER]
 17. Hypersensitivity [IMMUNE]
56. CDX2
1. colorectal cancer [CANCER, IMMUNE, PHARMACOGENOMIC]
 2. bone density [METABOLIC, NORMALVARIATION, UNKNOWN]
57. FOXO3
1. normalized brain volume, multiple sclerosis [IMMUNE]
 2. Cholesterol, HDL [METABOLIC]
 3. cognitive trait [NEUROLOGICAL]
 4. Electrocardiography [CARDIOVASCULAR]
 5. Aging/ Telomere Length[AGING]
 6. longevity [AGING, CARDIOVASCULAR]
 7. Creatinine [METABOLIC]
 8. Cleft Lip|Cleft Palate|Tooth Abnormalities [DEVELOPMENTAL]
 9. body mass [METABOLIC, CARDIOVASCULAR, PHARMACOGENOMIC]
 10. Amenorrhea|Ovarian Failure, Premature|POF - Premature ovarian failure [UNKNOWN]
 11. Insulin-Like Growth Factor I [METABOLIC]
 12. Multiple Sclerosis [IMMUNE]
58. PXN
1. lung cancer [CANCER, PHARMACOGENOMIC]
59. MNAT1
1. head and neck cancer [CANCER, PHARMACOGENOMIC]
 2. Tobacco Use Disorder [CHEMDEPENDENCY]
 3. Cholesterol [METABOLIC]
 4. lung cancer [CANCER, PHARMACOGENOMIC]
 5. Body Mass Index [METABOLIC]
 6. multiple sclerosis [IMMUNE, PHARMACOGENOMIC]
60. PRKDC
1. Brain Neoplasms|Glioma [CANCER]
 2. head and neck cancer [CANCER, PHARMACOGENOMIC]
 3. kidney cancer [CANCER, PHARMACOGENOMIC]
 4. Breath Tests [OTHER]
 5. prostate cancer [CANCER, PHARMACOGENOMIC]
 6. Tobacco Use Disorder [CHEMDEPENDENCY]

7. Hodgkin Disease|Leukemia, Lymphocytic, Chronic, B-Cell|Lymphoproliferative Disorders|Waldenstrom Macroglobulinemia [CANCER]
 8. brain cancer [CANCER, PHARMACOGENOMIC]
 9. benzene haematotoxicity [PHARMACOGENOMIC]
 10. Carcinoma, Papillary|Thyroid Neoplasms [CANCER]
 11. Leukemia, Lymphocytic, Chronic, B-Cell [CANCER]
 12. bladder cancer [CANCER, PHARMACOGENOMIC]
 13. lung cancer [CANCER, PHARMACOGENOMIC]
 14. breast cancer [CANCER, PHARMACOGENOMIC]
 15. Body Weight [METABOLIC]
 16. Lymphoma, Non-Hodgkin|Lymphoma, Non-Hodgkin`s [CANCER]
 17. multiple sclerosis [IMMUNE, PHARMACOGENOMIC]
61. CDKN1A
1. Carcinoma|Prostatic Neoplasms [CANCER]
 2. head and neck cancer [CANCER, PHARMACOGENOMIC]
 3. Glaucoma, Open-Angle|Low Tension Glaucoma|Ocular Hypertension [VISION]
 4. Carcinoma, Squamous Cell|Mouth Neoplasms|Squamous cell carcinoma [CANCER]
 5. Mouth Neoplasms|Precancerous Conditions [CANCER]
 6. Leiomyoma|Uterine Neoplasms [CANCER]
 7. prostate cancer [CANCER, PHARMACOGENOMIC]
 8. pancreatic cancer [CANCER]
 9. squamous cell carcinoma of the head and neck [CANCER]
 10. glaucoma, primary open-angle [VISION]
 11. Glaucoma, Open-Angle [VISION]
 12. atherosclerosis, generalized myocardial infarct [CARDIOVASCULAR]
 13. leukemia [OTHER, CANCER, PHARMACOGENOMIC]
 14. Type 2 Diabetes| edema | rosiglitazone [PHARMACOGENOMIC]
 15. Multiple Endocrine Neoplasia Type 1 [CANCER, UNKNOWN]
 16. Colorectal Neoplasms [CANCER]
 17. colorectal cancer [CANCER, IMMUNE, PHARMACOGENOMIC]
 18. Neoplasm Recurrence, Local|Prostatic Neoplasms [CANCER]
 19. skin cancer [CANCER]
 20. Brain Neoplasms [CANCER]
 21. Chromosome Aberrations|DNA Damage [OTHER]
 22. Bone Mineral Density [HEMATOLOGICAL, METABOLIC, CANCER, IMMUNE, RENAL, CARDIOVASCULAR]
 23. Adenocarcinoma|Pancreatic Neoplasms [CANCER]
 24. overall effect [CANCER]
 25. esophageal cancer [INFECTION, CANCER, PHARMACOGENOMIC]
 26. Lupus Erythematosus, Systemic|Lupus Nephritis [IMMUNE]
 27. Carcinoma, Squamous Cell|Esophageal Neoplasms|Oesophageal neoplasm|Squamous cell carcinoma [CANCER]
 28. lymphoma [CANCER, PHARMACOGENOMIC]
 29. stomach cancer [CANCER, PHARMACOGENOMIC]
 30. Adenocarcinoma|Cervical Neoplasm|Papillomavirus Infections|Uterine Cervical Neoplasms [CANCER]
 31. esophageal adenocarcinoma [CANCER]
 32. Brain Neoplasms|Glioma|meningioma|Neuroma, Acoustic|Neuromas, Acoustic [CANCER]
 33. epithelial ovarian cancer [CANCER]
 34. Esophageal Neoplasms|Head and Neck Neoplasms|Laryngeal Neoplasms|Mouth Neoplasms|Pharyngeal Neoplasms [CANCER]
 35. glaucoma [VISION]
 36. esophageal cancer gastric cardiac cancer [CANCER]
 37. bladder cancer [CANCER, PHARMACOGENOMIC]
 38. melanoma [CANCER]
 39. gastritis, chronic atrophic; stomach cancer [CANCER]
 40. Cervical Neoplasm|Uterine Cervical Neoplasms [CANCER]
 41. lung cancer [CANCER, PHARMACOGENOMIC]
 42. Basophils [IMMUNE]
 43. pharmacogenetic studies [PHARMACOGENOMIC]
 44. ovarian cancer [METABOLIC, CANCER, PHARMACOGENOMIC]
 45. Pancreatic Neoplasms [CANCER]
 46. breast cancer [CANCER, PHARMACOGENOMIC]
 47. Chronic renal failure|Kidney Failure, Chronic [RENAL]
 48. Lupus Erythematosus, Systemic|Systemic lupus erythematosus [IMMUNE, UNKNOWN]
 49. arthritis lupus erythematosus [IMMUNE]
 50. oral cancer [OTHER, CANCER]
 51. cervical cancer [INFECTION, CANCER, PHARMACOGENOMIC]
 52. Occupational Diseases [UNKNOWN]
 53. Lung Cancer [CANCER]
62. MYOD1
1. Bone Mineral Density [HEMATOLOGICAL, METABOLIC, CANCER, IMMUNE, RENAL, CARDIOVASCULAR]
 2. Carotid Artery Diseases|Plaque, Atherosclerotic [CARDIOVASCULAR]
63. PAG1
1. Tobacco Use Disorder [CHEMDEPENDENCY]

2. Type 2 Diabetes| edema | rosiglitazone [PHARMACOGENOMIC]
 3. Heart Rate [CARDIOVASCULAR]
 4. Forced Expiratory Volume [CARDIOVASCULAR]
64. APH1A
1. Tobacco Use Disorder [CHEMDEPENDENCY]
 2. Alzheimer's disease [NEUROLOGICAL]
65. RFC1
1. Central Nervous System Neoplasms|Central Nervous System Tumors|Lymphoma [CANCER]
 2. Echocardiography [CARDIOVASCULAR]
 3. Spinal Dysraphism [DEVELOPMENTAL, NEUROLOGICAL]
 4. Intracranial Aneurysm [CARDIOVASCULAR]
 5. Central Nervous System Neoplasms [CANCER]
 6. Arthritis, Psoriatic|Psoriatic arthropathy [IMMUNE]
 7. Anemia, Iron-Deficiency|Avitaminosis [HEMATOLOGICAL]
 8. nonsyndromic cleft lip [DEVELOPMENTAL]
 9. Alcoholism [CHEMDEPENDENCY, PHARMACOGENOMIC]
 10. prostate cancer [CANCER, PHARMACOGENOMIC]
 11. Abruptio Placentae| [REPRODUCTION]
 12. Hypertension [CARDIOVASCULAR]
 13. Down Syndrome [DEVELOPMENTAL]
 14. Neural Tube Defects [DEVELOPMENTAL]
 15. Bone Neoplasms|Osteosarcoma [CANCER]
 16. Aneuploidy|Precursor Cell Lymphoblastic Leukemia-Lymphoma [CANCER]
 17. Type 2 Diabetes| edema | rosiglitazone [PHARMACOGENOMIC]
 18. colorectal cancer [CANCER, IMMUNE, PHARMACOGENOMIC]
 19. Down Syndrome [DEVELOPMENTAL]
 20. Alzheimer's disease [NEUROLOGICAL]
 21. Brain Neoplasms|Meningioma [CANCER]
 22. Chromosome Aberrations|DNA Damage [OTHER]
 23. Cleft Lip|Cleft Palate [DEVELOPMENTAL]
 24. Down Syndrome|Micronuclei, Chromosome-Defective [DEVELOPMENTAL]
 25. Bone Neoplasms|Gastrointestinal Diseases|Hematologic Diseases|Kidney Diseases|Osteosarcoma [CANCER]
 26. Arthritis, Rheumatoid [IMMUNE]
 27. Retinal Neoplasms|Retinoblastoma [CANCER]
 28. homocysteine metabolism, cognition, and white matter lesions [NEUROLOGICAL]
 29. Cerebrovascular Disorders [CARDIOVASCULAR]
 30. rheumatoid arthritis [IMMUNE, PHARMACOGENOMIC]
 31. frequency of micronucleated lymphocytes [METABOLIC]
 32. Precursor Cell Lymphoblastic Leukemia-Lymphoma [CANCER]
 33. bladder cancer [CANCER, PHARMACOGENOMIC]
 34. vitamins and metabolites in pregnant women and neonates [REPRODUCTION]
 35. Heart Defects, Congenital|Spinal Dysraphism [CARDIOVASCULAR]
 36. Cervical Neoplasm|Uterine Cervical Neoplasms [CANCER]
 37. Interleukin-6 [IMMUNE]
 38. lung cancer [CANCER, PHARMACOGENOMIC]
 39. neural tube defects [DEVELOPMENTAL, UNKNOWN]
 40. pharmacogenetic studies [PHARMACOGENOMIC]
 41. Arthritis, Rheumatoid|Rheumatoid Arthritis [IMMUNE]
 42. Folic Acid Deficiency [METABOLIC, UNKNOWN]
 43. Drug Toxicity|Precursor Cell Lymphoblastic Leukemia-Lymphoma [CANCER, PHARMACOGENOMIC]
 44. breast cancer [CANCER, PHARMACOGENOMIC]
 45. Arthritis, Rheumatoid [IMMUNE]
 46. Graft vs Host Disease [IMMUNE]
 47. Hematologic Neoplasms [CANCER]
 48. Body Weights and Measures [METABOLIC]
 49. multiple sclerosis [IMMUNE, PHARMACOGENOMIC]
66. FANCG
1. prostate cancer [CANCER, PHARMACOGENOMIC]
 2. Type 2 Diabetes| edema | rosiglitazone [PHARMACOGENOMIC]
 3. Colorectal Neoplasms [CANCER]
 4. colorectal cancer [CANCER, IMMUNE, PHARMACOGENOMIC]
 5. Adenocarcinoma|Pancreatic Neoplasms [CANCER]
 6. epithelial ovarian cancer [CANCER]
 7. Esophageal Neoplasms|Head and Neck Neoplasms|Laryngeal Neoplasms|Mouth Neoplasms|Pharyngeal Neoplasms [CANCER]
 8. bladder cancer [CANCER, PHARMACOGENOMIC]
 9. lung cancer [CANCER, PHARMACOGENOMIC]
 10. breast cancer [CANCER, PHARMACOGENOMIC]

S6. Common phenotypes between protein pairs in G_2

This section listed the detail contents of common phenotypes between protein pairs in G_2 . For a protein, its partner was listed if there was a common phenotype between them. There were two columns between predicted disease protein pairs, i.e. the number and information of common phenotypes. The number in parenthesis represented the ID number of a predicted disease protein in section S5. The amount of common phenotypes between protein pairs was written in the square bracket.

1. STAT5A:

- (2) PIK3R1: [1] plasma HDL cholesterol (HDL-C) levels;
- (3) PTPN6: [1] Lupus Erythematosus, Systemic|Systemic lupus erythematosus;
- (5) GRB2: [1] plasma HDL cholesterol (HDL-C) levels;
- (6) SMAD3: [1] breast cancer;
- (7) PTK2: [1] hepatocellular carcinoma;
- (8) JUN: [3] respiratory syncytial virus bronchiolitis; Bronchiolitis, Viral|Respiratory Syncytial Virus Infections; breast cancer;
- (9) SP1: [1] plasma HDL cholesterol (HDL-C) levels;
- (12) SHC1: [2] plasma HDL cholesterol (HDL-C) levels; breast cancer;
- (13) HSP90AA1: [1]breast cancer;
- (14) NCOA2: [2] plasma HDL cholesterol (HDL-C) levels; breast cancer;
- (16) DAXX: [1] Precursor Cell Lymphoblastic Leukemia-Lymphoma;
- (17) CEBPB: [1] plasma HDL cholesterol (HDL-C) levels;
- (19) MED1: [2] plasma HDL cholesterol (HDL-C) levels; breast cancer;
- (22) RELA: [2]plasma HDL cholesterol (HDL-C) levels; breast cancer;
- (24) MDM4: [1] breast cancer;
- (25) HIF1A: [1] breast cancer;
- (26) FYN: [1] Lupus Erythematosus, Systemic|Systemic lupus erythematosus;
- (27) MAPK1: [1] breast cancer;
- (28) NFKB1: [8] Birth Weight|Leukemia|Leukemia, Myeloid, Acute|Precursor Cell Lymphoblastic Leukemia-Lymphoma; hepatocellular carcinoma; Hepatitis C|Remission, Spontaneous; Precursor Cell Lymphoblastic Leukemia-Lymphoma; plasma HDL cholesterol (HDL-C) levels; Meningeal Neoplasms|meningioma; breast cancer; hepatitis C;
- (30) NBN: [2] breast cancer; Lupus Erythematosus, Systemic|Systemic lupus erythematosus;
- (31) UBE2I: [2] plasma HDL cholesterol (HDL-C) levels; breast cancer;
- (32) IKBKB: [4] Hepatitis C|Remission, Spontaneous; respiratory syncytial virus bronchiolitis; Bronchiolitis, Viral|Respiratory Syncytial Virus Infections; Asthma|Bronchiolitis, Viral|Respiratory Syncytial Virus Infections;
- (33) NCOA3: [3] Precursor Cell Lymphoblastic Leukemia-Lymphoma; plasma HDL cholesterol (HDL-C) levels; breast cancer;
- (36) CDK6: [1]breast cancer;
- (37) RXRA: [1] plasma HDL cholesterol (HDL-C) levels;
- (39) NCOA6: [1] plasma HDL cholesterol (HDL-C) levels;
- (41) RAD51: [1] breast cancer;
- (43) GSK3B: [2] plasma HDL cholesterol (HDL-C) levels; breast cancer;
- (44) AHR: [1] breast cancer;
- (45) MAPK3: [1] plasma HDL cholesterol (HDL-C) levels;
- (48) CD28: [6] Hepatitis C|Remission, Spontaneous; Precursor Cell Lymphoblastic Leukemia-Lymphoma; respiratory syncytial virus bronchiolitis; Bronchiolitis, Viral|Respiratory Syncytial Virus Infections; Lupus Erythematosus, Systemic|Systemic lupus erythematosus; Asthma|Bronchiolitis, Viral|Respiratory Syncytial Virus Infections;
- (49) LYN: [1] Lupus Erythematosus, Systemic|Systemic lupus erythematosus;
- (52) STAT2: [3] Birth Weight|Leukemia|Leukemia, Myeloid, Acute|Precursor Cell Lymphoblastic Leukemia-Lymphoma; Hepatitis C|Remission, Spontaneous; Meningeal Neoplasms|meningioma;
- (55) TRAF6: [1] Hepatitis C|Remission, Spontaneous;
- (60) PRKDC: [1] breast cancer;
- (61) CDKN1A: [2] breast cancer; Lupus Erythematosus, Systemic|Systemic lupus erythematosus;
- (65) RFC1: [2] Precursor Cell Lymphoblastic Leukemia-Lymphoma; breast cancer;
- (66) FANCG: [1] breast cancer;

2. PIK3R1:

- (1) STAT5A: [1] plasma HDL cholesterol (HDL-C) levels;
- (4) PLCG1: [2] Type 2 Diabetes| edema | rosiglitazone; HIV;
- (5) GRB2: [3] Tobacco Use Disorder; Type 2 Diabetes| edema | rosiglitazone; plasma HDL cholesterol (HDL-C) levels;
- (6) SMAD3: [4] prostate cancer; Tobacco Use Disorder; diabetes, type 2; Pancreatic Neoplasms;
- (7) PTK2: [1] HIV;
- (8) JUN: [1] Type 2 Diabetes| edema | rosiglitazone;
- (9) SP1: [1] plasma HDL cholesterol (HDL-C) levels;
- (11) FHL2: [2] Body Weight; Body Mass Index;
- (12) SHC1: [4] Tobacco Use Disorder; longevity; diabetes, type 2; plasma HDL cholesterol (HDL-C) levels;
- (13) HSP90AA1: [2]Type 2 Diabetes| edema | rosiglitazone; Insulin Resistance|Polycystic Ovary Syndrome;
- (14) NCOA2: [4] prostate cancer; Tobacco Use Disorder; Type 2 Diabetes| edema | rosiglitazone; plasma HDL cholesterol (HDL-C) levels;

- (16) DAXX: [1] Cholesterol;
- (17) CEBPB: [1] plasma HDL cholesterol (HDL-C) levels;
- (18) HDAC1: [1] Tobacco Use Disorder;
- (19) MED1: [2] prostate cancer; plasma HDL cholesterol (HDL-C) levels;
- (20) PTK2B: [4] Tobacco Use Disorder; Type 2 Diabetes| edema | rosiglitazone; longevity; HIV;
- (21) CASP3: [1] Type 2 Diabetes| edema | rosiglitazone;
- (22) RELA: [2] Type 2 Diabetes| edema | rosiglitazone; plasma HDL cholesterol (HDL-C) levels;
- (23) PRKCD: [2] Tobacco Use Disorder; Type 2 Diabetes| edema | rosiglitazone;
- (24) MDM4: [4] Neoplasms; prostate cancer; Tobacco Use Disorder; Type 2 Diabetes| edema | rosiglitazone;
- (25) HIF1A: [6] prostate cancer; Type 2 Diabetes| edema | rosiglitazone; longevity; diabetes, type 2; BMI- Edema rosiglitazone or pioglitazone; Hypercholesterolemia|LDLC levels;
- (26) FYN: [3] Alzheimer`s Disease; Type 2 Diabetes| edema | rosiglitazone; HIV;
- (27) MAPK1: [2] Type 2 Diabetes| edema | rosiglitazone; HIV;
- (28) NFKB1: [6] Neoplasms; prostate cancer; Tobacco Use Disorder; Type 2 Diabetes| edema | rosiglitazone; plasma HDL cholesterol (HDL-C) levels; Body Weight;
- (29) SMAD2: [1] Pancreatic Neoplasms;
- (30) NBN: [3] Neoplasms; prostate cancer; Tobacco Use Disorder;
- (31) UBE2I: [1] plasma HDL cholesterol (HDL-C) levels;
- (32) IKBKB: [2] diabetes, type 2; HIV;
- (33) NCOA3: [3] prostate cancer; Type 2 Diabetes| edema | rosiglitazone; plasma HDL cholesterol (HDL-C) levels;
- (34) SMAD4: [2] Type 2 Diabetes| edema | rosiglitazone; Pancreatic Neoplasms;
- (35) PRKCZ: [2] Type 2 Diabetes| edema | rosiglitazone; diabetes, type 2;
- (36) CDK6: [1] Type 2 Diabetes| edema | rosiglitazone;
- (37) RXRA: [6] prostate cancer; Tobacco Use Disorder; Type 2 Diabetes| edema | rosiglitazone; Hypercholesterolemia|LDLC levels; plasma HDL cholesterol (HDL-C) levels; Body Weight;
- (38) ADRBK1: [1] Type 2 Diabetes| edema | rosiglitazone;
- (39) NCOA6: [2] Tobacco Use Disorder; plasma HDL cholesterol (HDL-C) levels;
- (40) THBS1: [2] prostate cancer; Type 2 Diabetes| edema | rosiglitazone;
- (41) RAD51: [2] Neoplasms; prostate cancer;
- (43) GSK3B: [6] Alzheimer`s Disease; Type 2 Diabetes| edema | rosiglitazone; BMI- Edema rosiglitazone or pioglitazone; Hypercholesterolemia|LDLC levels; Polycystic Ovary Syndrome; plasma HDL cholesterol (HDL-C) levels;
- (45) MAPK3: [1] plasma HDL cholesterol (HDL-C) levels;
- (49) LYN: [3] Tobacco Use Disorder; HIV; Body Weight;
- (51) HIPK2: [1] Tobacco Use Disorder;
- (52) STAT2: [1] Type 2 Diabetes| edema | rosiglitazone;
- (55) TRAF6: [2] Type 2 Diabetes| edema | rosiglitazone; HIV;
- (57) FOXO3: [1] longevity;
- (59) MNAT1: [3] Tobacco Use Disorder; Cholesterol; Body Mass Index;
- (60) PRKDC: [3] prostate cancer; Tobacco Use Disorder; Body Weight;
- (61) CDKN1A: [3] prostate cancer; Type 2 Diabetes| edema | rosiglitazone; Pancreatic Neoplasms;
- (63) PAG1: [2] Tobacco Use Disorder; Type 2 Diabetes| edema | rosiglitazone;
- (64) APH1A: [1] Tobacco Use Disorder;
- (65) RFC1: [2] prostate cancer; Type 2 Diabetes| edema | rosiglitazone;
- (66) FANCG: [2] prostate cancer; Type 2 Diabetes| edema | rosiglitazone;
3. PTPN6:
- (1) STAT5A: [1] Lupus Erythematosus, Systemic|Systemic lupus erythematosus;
- (5) GRB2: [1] Alzheimer`s disease;
- (6) SMAD3: [1] Alzheimer`s disease;
- (17) CEBPB: [1] systemic lupus erythematosus;
- (26) FYN: [1] Lupus Erythematosus, Systemic|Systemic lupus erythematosus;
- (28) NFKB1: [2] Alzheimer`s disease; rheumatoid arthritis;
- (30) NBN: [1] Lupus Erythematosus, Systemic|Systemic lupus erythematosus;
- (31) UBE2I: [1] Alzheimer`s disease;
- (36) CDK6: [1]rheumatoid arthritis;
- (37) RXRA: [1] Alzheimer`s disease;
- (42) YWHAB: [1] systemic lupus erythematosus;
- (43) GSK3B: [1] Alzheimer`s disease;
- (44) AHR: [1] Alzheimer`s disease;
- (48) CD28: [1] Lupus Erythematosus, Systemic|Systemic lupus erythematosus;
- (49) LYN: [1] Lupus Erythematosus, Systemic|Systemic lupus erythematosus;
- (55) TRAF6: [1] Alzheimer`s disease;
- (61) CDKN1A: [1] Lupus Erythematosus, Systemic|Systemic lupus erythematosus;
- (64) APH1A: [1] Alzheimer`s disease;
- (65) RFC1: [2] Alzheimer`s disease; rheumatoid arthritis;

4. PLCG1:

- (2) PIK3R1: [2] Type 2 Diabetes| edema | rosiglitazone; HIV;
- (5) GRB2: [1] Type 2 Diabetes| edema | rosiglitazone;
- (7) PTK2: [1] HIV;
- (8) JUN: [2] Type 2 Diabetes| edema | rosiglitazone; Chronic renal failure|Kidney Failure, Chronic;
- (13) HSP90AA1: [1]Type 2 Diabetes| edema | rosiglitazone;
- (14) NCOA2: [1] Type 2 Diabetes| edema | rosiglitazone;
- (20) PTK2B: [3] Type 2 Diabetes| edema | rosiglitazone; HIV; Chronic renal failure|Kidney Failure, Chronic;
- (21) CASP3: [3] Type 2 Diabetes| edema | rosiglitazone; Chronic renal failure|Kidney Failure, Chronic; multiple sclerosis;
- (22) RELA: [1]Type 2 Diabetes| edema | rosiglitazone;
- (23) PRKCD: [1] Type 2 Diabetes| edema | rosiglitazone;
- (24) MDM4: [1] Type 2 Diabetes| edema | rosiglitazone;
- (25) HIF1A: [2] Type 2 Diabetes| edema | rosiglitazone; Chronic renal failure|Kidney Failure, Chronic;
- (26) FYN: [2] Type 2 Diabetes| edema | rosiglitazone; HIV;
- (27) MAPK1: [3] Type 2 Diabetes| edema | rosiglitazone; HIV; Chronic renal failure|Kidney Failure, Chronic;
- (28) NFKB1: [2] Type 2 Diabetes| edema | rosiglitazone; Chronic renal failure|Kidney Failure, Chronic;
- (30) NBN: [2] Chronic renal failure|Kidney Failure, Chronic; multiple sclerosis;
- (32) IKBKB: [1] HIV;
- (33) NCOA3: [1] Type 2 Diabetes| edema | rosiglitazone;
- (34) SMAD4: [1] Type 2 Diabetes| edema | rosiglitazone;
- (35) PRKCZ: [1] Type 2 Diabetes| edema | rosiglitazone;
- (36) CDK6: [2]Type 2 Diabetes| edema | rosiglitazone; Chronic renal failure|Kidney Failure, Chronic;
- (37) RXRA: [2] Type 2 Diabetes| edema | rosiglitazone; Chronic renal failure|Kidney Failure, Chronic;
- (38) ADRBK1: [1] Type 2 Diabetes| edema | rosiglitazone;
- (40) THBS1: [2] Type 2 Diabetes| edema | rosiglitazone; Chronic renal failure|Kidney Failure, Chronic;
- (41) RAD51: [1] multiple sclerosis;
- (43) GSK3B: [2] Type 2 Diabetes| edema | rosiglitazone; bipolar disorder;
- (44) AHR: [1] Chronic renal failure|Kidney Failure, Chronic;
- (48) CD28: [2] Chronic renal failure|Kidney Failure, Chronic; multiple sclerosis;
- (49) LYN: [2] several psychiatric disorders; HIV;
- (52) STAT2: [1] Type 2 Diabetes| edema | rosiglitazone;
- (55) TRAF6: [2] Type 2 Diabetes| edema | rosiglitazone; HIV;
- (59) MNAT1: [1] multiple sclerosis;
- (60) PRKDC: [1] multiple sclerosis;
- (61) CDKN1A: [2] Type 2 Diabetes| edema | rosiglitazone; Chronic renal failure|Kidney Failure, Chronic;
- (63) PAG1: [1] Type 2 Diabetes| edema | rosiglitazone;
- (65) RFC1: [2] Type 2 Diabetes| edema | rosiglitazone; multiple sclerosis;
- (66) FANCG: [1] Type 2 Diabetes| edema | rosiglitazone;

5. GRB2:

- (1) STAT5A: [1] plasma HDL cholesterol (HDL-C) levels;
- (2) PIK3R1: [3] Tobacco Use Disorder; Type 2 Diabetes| edema | rosiglitazone; plasma HDL cholesterol (HDL-C) levels;
- (3) PTPN6: [1] Alzheimer`s disease;
- (4) PLCG1: [1]Type 2 Diabetes| edema | rosiglitazone;
- (6) SMAD3: [2] Tobacco Use Disorder; Alzheimer`s disease;
- (8) JUN: [1] Type 2 Diabetes| edema | rosiglitazone;
- (9) SP1: [1] plasma HDL cholesterol (HDL-C) levels;
- (12) SHC1: [2] Tobacco Use Disorder; plasma HDL cholesterol (HDL-C) levels;
- (13) HSP90AA1: [1]Type 2 Diabetes| edema | rosiglitazone;
- (14) NCOA2: [3] Tobacco Use Disorder; Type 2 Diabetes| edema | rosiglitazone; plasma HDL cholesterol (HDL-C) levels;
- (17) CEBPB: [1] plasma HDL cholesterol (HDL-C) levels;
- (18) HDAC1: [1] Tobacco Use Disorder;
- (19) MED1: [1] plasma HDL cholesterol (HDL-C) levels;
- (20) PTK2B: [2] Tobacco Use Disorder; Type 2 Diabetes| edema | rosiglitazone;
- (21) CASP3: [1] Type 2 Diabetes| edema | rosiglitazone;
- (22) RELA: [2]Type 2 Diabetes| edema | rosiglitazone; plasma HDL cholesterol (HDL-C) levels;
- (23) PRKCD: [2] Tobacco Use Disorder; Type 2 Diabetes| edema | rosiglitazone;
- (24) MDM4: [2] Tobacco Use Disorder; Type 2 Diabetes| edema | rosiglitazone;
- (25) HIF1A: [1] Type 2 Diabetes| edema | rosiglitazone;
- (26) FYN: [1] Type 2 Diabetes| edema | rosiglitazone;
- (27) MAPK1: [2] Type 2 Diabetes| edema | rosiglitazone; Bulimia;
- (28) NFKB1: [4] Tobacco Use Disorder; Type 2 Diabetes| edema | rosiglitazone; Alzheimer`s disease; plasma HDL cholesterol (HDL-C) levels;
- (30) NBN: [1] Tobacco Use Disorder;
- (31) UBE2I: [2] Alzheimer`s disease; plasma HDL cholesterol (HDL-C) levels;

- (33) NCOA3: [2] Type 2 Diabetes| edema | rosiglitazone; plasma HDL cholesterol (HDL-C) levels;
- (34) SMAD4: [1] Type 2 Diabetes| edema | rosiglitazone;
- (35) PRKCZ: [1] Type 2 Diabetes| edema | rosiglitazone;
- (36) CDK6: [1] Type 2 Diabetes| edema | rosiglitazone;
- (37) RXRA: [4] Tobacco Use Disorder; Type 2 Diabetes| edema | rosiglitazone; Alzheimer`s disease; plasma HDL cholesterol (HDL-C) levels;
- (38) ADRBK1: [2] Type 2 Diabetes| edema | rosiglitazone; Bulimia;
- (39) NCOA6: [2] Tobacco Use Disorder; plasma HDL cholesterol (HDL-C) levels;
- (40) THBS1: [1] Type 2 Diabetes| edema | rosiglitazone;
- (43) GSK3B: [4] Type 2 Diabetes| edema | rosiglitazone; Alzheimer`s disease; plasma HDL cholesterol (HDL-C) levels;
- Bulimia;
- (44) AHR: [1] Alzheimer`s disease;
- (45) MAPK3: [1] plasma HDL cholesterol (HDL-C) levels;
- (49) LYN: [1] Tobacco Use Disorder;
- (51) HIPK2: [1] Tobacco Use Disorder;
- (52) STAT2: [1] Type 2 Diabetes| edema | rosiglitazone;
- (55) TRAF6: [2] Type 2 Diabetes| edema | rosiglitazone; Alzheimer`s disease;
- (59) MNAT1: [1] Tobacco Use Disorder;
- (60) PRKDC: [1] Tobacco Use Disorder;
- (61) CDKN1A: [1] Type 2 Diabetes| edema | rosiglitazone;
- (63) PAG1: [2] Tobacco Use Disorder; Type 2 Diabetes| edema | rosiglitazone;
- (64) APH1A: [2] Tobacco Use Disorder; Alzheimer`s disease;
- (65) RFC1: [2] Type 2 Diabetes| edema | rosiglitazone; Alzheimer`s disease;
- (66) FANCG: [1] Type 2 Diabetes| edema | rosiglitazone;
6. SMAD3:
- (1) STAT5A: [1] breast cancer;
- (2) PIK3R1: [4] prostate cancer; Tobacco Use Disorder; diabetes, type 2; Pancreatic Neoplasms;
- (3) PTPN6: [1] Alzheimer`s disease;
- (5) GRB2: [2] Tobacco Use Disorder; Alzheimer`s disease;
- (7) PTK2: [1] Heart Rate;
- (8) JUN: [1] breast cancer;
- (9) SP1: [1] Head and Neck Neoplasms|Neoplasm Recurrence, Local|Neoplasms, Second Primary;
- (12) SHC1: [3] Tobacco Use Disorder; diabetes, type 2; breast cancer;
- (13) HSP90AA1: [3] asthma; Cleft Lip|Cleft Palate; breast cancer;
- (14) NCOA2: [4] prostate cancer; Tobacco Use Disorder; Bone Mineral Density; breast cancer;
- (16) DAXX: [1] diabetes, type 1;
- (17) CEBPB: [1] Bone Mineral Density;
- (18) HDAC1: [2] Tobacco Use Disorder; epithelial ovarian cancer;
- (19) MED1: [2] prostate cancer; breast cancer;
- (20) PTK2B: [1] Tobacco Use Disorder;
- (21) CASP3: [1] Bone Mineral Density;
- (22) RELA: [2] Hepatopulmonary Syndrome|Liver Cirrhosis; breast cancer;
- (23) PRKCD: [1] Tobacco Use Disorder;
- (24) MDM4: [4] prostate cancer; Tobacco Use Disorder; Head and Neck Neoplasms|Neoplasm Recurrence, Local|Neoplasms, Second Primary; breast cancer;
- (25) HIF1A: [5] prostate cancer; Cleft Lip|Cleft Palate; Hepatopulmonary Syndrome|Liver Cirrhosis; diabetes, type 2; breast cancer;
- (26) FYN: [2] Asthma; Coronary Artery Disease;
- (27) MAPK1: [2] Heart Rate; breast cancer;
- (28) NFKB1: [9] prostate cancer; Body Height; Tobacco Use Disorder; Alzheimer`s disease; Hepatopulmonary Syndrome|Liver Cirrhosis; Bone Mineral Density; diabetes, type 1; breast cancer; Obesity|POF - Premature ovarian failure|POLYCYSTIC OVARIAN SYNDROME|Polycystic Ovary Syndrome|Primary Ovarian Insufficiency|Puberty, Delayed|Puberty, Precocious|Thrombophilia|Tobacco Use Disorder;
- (29) SMAD2: [8] Hepatopulmonary Syndrome|Liver Cirrhosis; Cleft Lip|Cleft Palate; Hypertension, Pulmonary; Bone Mineral Density; Pancreatic Neoplasms; colorectal cancer; Tourette syndrome; bone density; pregnancy loss, recurrent; cleft lip without cleft palate; juvenile polyposis; cleft palate; Obesity|POF - Premature ovarian failure|POLYCYSTIC OVARIAN SYNDROME|Polycystic Ovary Syndrome|Primary Ovarian Insufficiency|Puberty, Delayed|Puberty, Precocious|Thrombophilia|Tobacco Use Disorder; bone density;
- (30) NBN: [5] prostate cancer; Tobacco Use Disorder; Cleft Lip|Cleft Palate; epithelial ovarian cancer; breast cancer;
- (31) UBE2I: [2] Alzheimer`s disease; breast cancer;
- (32) IKBKB: [2] Bone Mineral Density; diabetes, type 2;
- (33) NCOA3: [4] prostate cancer; Bone Mineral Density; epithelial ovarian cancer; breast cancer;
- (34) SMAD4: [9] Cleft Lip|Cleft Palate; Hepatopulmonary Syndrome|Liver Cirrhosis; Hypertension, Pulmonary; Bone Mineral Density; diabetes, type 1; Pancreatic Neoplasms; colorectal cancer; Tourette syndrome; bone density; pregnancy loss, recurrent; cleft lip

without cleft palate; juvenile polyposis; cleft palate; Obesity|POF - Premature ovarian failure|POLYCYSTIC OVARIAN SYNDROME|Polycystic Ovary Syndrome|Primary Ovarian Insufficiency|Puberty, Delayed|Puberty, Precocious|Thrombophilia|Tobacco Use Disorder; bone density;

(35) PRKCZ: [2] Body Height; diabetes, type 2;

(36) CDK6: [4] Body Height; Bone Mineral Density; diabetes, type 1; breast cancer;

(37) RXRA: [7] prostate cancer; Tobacco Use Disorder; Alzheimer`s disease; Bone Mineral Density; Coronary Artery Disease; Head and Neck Neoplasms|Neoplasm Recurrence, Local|Neoplasms, Second Primary; Coronary Disease;

(39) NCOA6: [1] Tobacco Use Disorder;

(40) THBS1: [2] prostate cancer; Hepatopulmonary Syndrome|Liver Cirrhosis;

(41) RAD51: [3] prostate cancer; epithelial ovarian cancer; breast cancer;

(43) GSK3B: [3] Alzheimer`s disease; Bone Mineral Density; breast cancer;

(44) AHR: [4] Alzheimer`s disease; Cleft Lip|Cleft Palate; Heart Rate; breast cancer;

(45) MAPK3: [1] Bone Mineral Density;

(48) CD28: [2] Asthma; diabetes, type 1;

(49) LYN: [1] Tobacco Use Disorder;

(51) HIPK2: [1] Tobacco Use Disorder;

(55) TRAF6: [2] Alzheimer`s disease; Bone Mineral Density;

(56) CDX2: [1] bone density;

(59) MNAT1: [1] Tobacco Use Disorder;

(60) PRKDC: [3] prostate cancer; Tobacco Use Disorder; breast cancer;

(61) CDKN1A: [5] prostate cancer; Bone Mineral Density; epithelial ovarian cancer; Pancreatic Neoplasms; breast cancer;

(62) MYOD1: [1] Bone Mineral Density;

(63) PAG1: [2] Tobacco Use Disorder; Heart Rate;

(64) APH1A: [2] Tobacco Use Disorder; Alzheimer`s disease;

(65) RFC1: [5] prostate cancer; Alzheimer`s disease; Cleft Lip|Cleft Palate; breast cancer; Graft vs Host Disease;

(66) FANCG: [3] prostate cancer; epithelial ovarian cancer; breast cancer;

7. PTK2:

(1) STAT5A: [1] hepatocellular carcinoma;

(2) PIK3R1: [1] HIV;

(4) PLCG1: [1] HIV;

(6) SMAD3: [1] Heart Rate;

(20) PTK2B: [1] HIV;

(21) CASP3: [2] Leukemia, Myelogenous, Chronic, BCR-ABL Positive|Neovascularization, Pathologic; Leukemia, Myelogenous, Chronic, BCR-ABL Positive;

(26) FYN: [1] HIV;

(27) MAPK1: [3] Heart Rate; HIV; Multiple Sclerosis;

(28) NFKB1: [1] hepatocellular carcinoma;

(32) IKBKB: [1] HIV;

(44) AHR: [1] Heart Rate;

(49) LYN: [1] HIV;

(55) TRAF6: [1] HIV;

(57) FOXO3: [1] Multiple Sclerosis;

(63) PAG1: [1] Heart Rate;

8. JUN:

(1) STAT5A: [3] respiratory syncytial virus bronchiolitis; Bronchiolitis, Viral|Respiratory Syncytial Virus Infections; breast cancer;

(2) PIK3R1: [1] Type 2 Diabetes| edema | rosiglitazone;

(4) PLCG1: [2] Type 2 Diabetes| edema | rosiglitazone; Chronic renal failure|Kidney Failure, Chronic;

(5) GRB2: [1] Type 2 Diabetes| edema | rosiglitazone;

(6) SMAD3: [1] breast cancer;

(12) SHC1: [1] breast cancer;

(13) HSP90AA1: [2] Type 2 Diabetes| edema | rosiglitazone; breast cancer;

(14) NCOA2: [2] Type 2 Diabetes| edema | rosiglitazone; breast cancer;

(15) KAT2B: [1] ovarian cancer;

(19) MED1: [1] breast cancer;

(20) PTK2B: [2] Type 2 Diabetes| edema | rosiglitazone; Chronic renal failure|Kidney Failure, Chronic;

(21) CASP3: [2] Type 2 Diabetes| edema | rosiglitazone; Chronic renal failure|Kidney Failure, Chronic;

(22) RELA: [2] Type 2 Diabetes| edema | rosiglitazone; breast cancer;

(23) PRKCD: [1] Type 2 Diabetes| edema | rosiglitazone;

(24) MDM4: [5] Type 2 Diabetes| edema | rosiglitazone; Psychomotor Performance; Cognitive performance; ovarian cancer; breast cancer;

(25) HIF1A: [4] Type 2 Diabetes| edema | rosiglitazone; ovarian cancer; breast cancer; Chronic renal failure|Kidney Failure, Chronic;

(26) FYN: [1] Type 2 Diabetes| edema | rosiglitazone;

- (27) MAPK1: [5] alcohol consumption; Type 2 Diabetes| edema | rosiglitazone; ovarian cancer; breast cancer; Chronic renal failure|Kidney Failure, Chronic;
- (28) NFKB1: [3] Type 2 Diabetes| edema | rosiglitazone; breast cancer; Chronic renal failure|Kidney Failure, Chronic;
- (30) NBN: [3] ovarian cancer; breast cancer; Chronic renal failure|Kidney Failure, Chronic;
- (31) UBE2I: [1] breast cancer;
- (32) IKBKB: [2] respiratory syncytial virus bronchiolitis; Bronchiolitis, Viral|Respiratory Syncytial Virus Infections;
- (33) NCOA3: [3] Type 2 Diabetes| edema | rosiglitazone; ovarian cancer; breast cancer;
- (34) SMAD4: [1] Type 2 Diabetes| edema | rosiglitazone;
- (35) PRKCZ: [1] Type 2 Diabetes| edema | rosiglitazone;
- (36) CDK6: [4] Type 2 Diabetes| edema | rosiglitazone; ovarian cancer; breast cancer; Chronic renal failure|Kidney Failure, Chronic;
- (37) RXRA: [3] Type 2 Diabetes| edema | rosiglitazone; Heart Failure; Chronic renal failure|Kidney Failure, Chronic;
- (38) ADRBK1: [2] Type 2 Diabetes| edema | rosiglitazone; Heart Failure;
- (40) THBS1: [2] Type 2 Diabetes| edema | rosiglitazone; Chronic renal failure|Kidney Failure, Chronic;
- (41) RAD51: [2] ovarian cancer; breast cancer;
- (43) GSK3B: [3] alcohol consumption; Type 2 Diabetes| edema | rosiglitazone; breast cancer;
- (44) AHR: [2] breast cancer; Chronic renal failure|Kidney Failure, Chronic;
- (45) MAPK3: [1] alcohol consumption;
- (48) CD28: [3] respiratory syncytial virus bronchiolitis; Bronchiolitis, Viral|Respiratory Syncytial Virus Infections; Chronic renal failure|Kidney Failure, Chronic;
- (52) STAT2: [1] Type 2 Diabetes| edema | rosiglitazone;
- (55) TRAF6: [1] Type 2 Diabetes| edema | rosiglitazone;
- (60) PRKDC: [1] breast cancer;
- (61) CDKN1A: [4] Type 2 Diabetes| edema | rosiglitazone; ovarian cancer; breast cancer; Chronic renal failure|Kidney Failure, Chronic;
- (63) PAG1: [1] Type 2 Diabetes| edema | rosiglitazone;
- (65) RFC1: [3] Type 2 Diabetes| edema | rosiglitazone; breast cancer; Body Weights and Measures;
- (66) FANCG: [2] Type 2 Diabetes| edema | rosiglitazone; breast cancer;
9. SP1:
- (1) STAT5A: [1] plasma HDL cholesterol (HDL-C) levels;
- (2) PIK3R1: [1] plasma HDL cholesterol (HDL-C) levels;
- (5) GRB2: [1] plasma HDL cholesterol (HDL-C) levels;
- (6) SMAD3: [1] Head and Neck Neoplasms|Neoplasm Recurrence, Local|Neoplasms, Second Primary;
- (12) SHC1: [1] plasma HDL cholesterol (HDL-C) levels;
- (14) NCOA2: [1] plasma HDL cholesterol (HDL-C) levels;
- (17) CEBPB: [1] plasma HDL cholesterol (HDL-C) levels;
- (19) MED1: [1] plasma HDL cholesterol (HDL-C) levels;
- (22) RELA: [1] plasma HDL cholesterol (HDL-C) levels;
- (24) MDM4: [1] Head and Neck Neoplasms|Neoplasm Recurrence, Local|Neoplasms, Second Primary;
- (28) NFKB1: [1] plasma HDL cholesterol (HDL-C) levels;
- (31) UBE2I: [1] plasma HDL cholesterol (HDL-C) levels;
- (33) NCOA3: [1] plasma HDL cholesterol (HDL-C) levels;
- (37) RXRA: [2] Head and Neck Neoplasms|Neoplasm Recurrence, Local|Neoplasms, Second Primary; plasma HDL cholesterol (HDL-C) levels;
- (39) NCOA6: [1] plasma HDL cholesterol (HDL-C) levels;
- (43) GSK3B: [1] plasma HDL cholesterol (HDL-C) levels;
- (45) MAPK3: [1] plasma HDL cholesterol (HDL-C) levels;
10. GRB10:
11. FHL2:
- (2) PIK3R1: [2] Body Weight; Body Mass Index;
- (28) NFKB1: [1] Body Weight;
- (37) RXRA: [1] Body Weight;
- (49) LYN: [1] Body Weight;
- (59) MNAT1: [1] Body Mass Index;
- (60) PRKDC: [1] Body Weight;
- (65) RFC1: [1] Hypertension;
12. SHC1:
- (1) STAT5A: [2] plasma HDL cholesterol (HDL-C) levels; breast cancer;
- (2) PIK3R1: [4] Tobacco Use Disorder; longevity; diabetes, type 2; plasma HDL cholesterol (HDL-C) levels;
- (5) GRB2: [2] Tobacco Use Disorder; plasma HDL cholesterol (HDL-C) levels;
- (6) SMAD3: [3] Tobacco Use Disorder; diabetes, type 2; breast cancer;
- (8) JUN: [1] breast cancer;
- (9) SP1: [1] plasma HDL cholesterol (HDL-C) levels;
- (13) HSP90AA1: [1] breast cancer;

- (14) NCOA2: [3] Tobacco Use Disorder; plasma HDL cholesterol (HDL-C) levels; breast cancer;
- (17) CEBPB: [1] plasma HDL cholesterol (HDL-C) levels;
- (18) HDAC1: [1] Tobacco Use Disorder;
- (19) MED1: [2] plasma HDL cholesterol (HDL-C) levels; breast cancer;
- (20) PTK2B: [2] Tobacco Use Disorder; longevity;
- (22) RELA: [2] plasma HDL cholesterol (HDL-C) levels; breast cancer;
- (23) PRKCD: [1] Tobacco Use Disorder;
- (24) MDM4: [2] Tobacco Use Disorder; breast cancer;
- (25) HIF1A: [3] longevity; diabetes, type 2; breast cancer;
- (27) MAPK1: [1] breast cancer;
- (28) NFKB1: [3] Tobacco Use Disorder; plasma HDL cholesterol (HDL-C) levels; breast cancer;
- (30) NBN: [2] Tobacco Use Disorder; breast cancer;
- (31) UBE2I: [2] plasma HDL cholesterol (HDL-C) levels; breast cancer;
- (32) IKBKB: [1] diabetes, type 2;
- (33) NCOA3: [2] plasma HDL cholesterol (HDL-C) levels; breast cancer;
- (35) PRKCZ: [1] diabetes, type 2;
- (36) CDK6: [1] breast cancer;
- (37) RXRA: [2] Tobacco Use Disorder; plasma HDL cholesterol (HDL-C) levels;
- (39) NCOA6: [2] Tobacco Use Disorder; plasma HDL cholesterol (HDL-C) levels;
- (41) RAD51: [1] breast cancer;
- (43) GSK3B: [2] plasma HDL cholesterol (HDL-C) levels; breast cancer;
- (44) AHR: [1] breast cancer;
- (45) MAPK3: [1] plasma HDL cholesterol (HDL-C) levels;
- (49) LYN: [1] Tobacco Use Disorder;
- (51) HIPK2: [1] Tobacco Use Disorder;
- (57) FOXO3: [1] longevity;
- (59) MNAT1: [1] Tobacco Use Disorder;
- (60) PRKDC: [2] Tobacco Use Disorder; breast cancer;
- (61) CDKN1A: [1] breast cancer;
- (63) PAG1: [1] Tobacco Use Disorder;
- (64) APH1A: [1] Tobacco Use Disorder;
- (65) RFC1: [1] breast cancer;
- (66) FANCG: [1] breast cancer;

13. HSP90AA1:

- (1) STAT5A: [1] breast cancer;
- (2) PIK3R1: [2] Type 2 Diabetes| edema | rosiglitazone; Insulin Resistance|Polycystic Ovary Syndrome;
- (4) PLCG1: [1] Type 2 Diabetes| edema | rosiglitazone;
- (5) GRB2: [1] Type 2 Diabetes| edema | rosiglitazone;
- (6) SMAD3: [3] asthma; Cleft Lip|Cleft Palate; breast cancer;
- (8) JUN: [2] Type 2 Diabetes| edema | rosiglitazone; breast cancer;
- (12) SHC1: [1] breast cancer;
- (14) NCOA2: [3] Type 2 Diabetes| edema | rosiglitazone; breast cancer; bronchodilator response;
- (18) HDAC1: [1] bronchodilator response;
- (19) MED1: [1] breast cancer;
- (20) PTK2B: [1] Type 2 Diabetes| edema | rosiglitazone;
- (21) CASP3: [1] Type 2 Diabetes| edema | rosiglitazone;
- (22) RELA: [2] Type 2 Diabetes| edema | rosiglitazone; breast cancer;
- (23) PRKCD: [1] Type 2 Diabetes| edema | rosiglitazone;
- (24) MDM4: [2] Type 2 Diabetes| edema | rosiglitazone; breast cancer;
- (25) HIF1A: [3] Type 2 Diabetes| edema | rosiglitazone; Cleft Lip|Cleft Palate; breast cancer;
- (26) FYN: [1] Type 2 Diabetes| edema | rosiglitazone;
- (27) MAPK1: [3] Type 2 Diabetes| edema | rosiglitazone; breast cancer; bronchodilator response;
- (28) NFKB1: [2] Type 2 Diabetes| edema | rosiglitazone; breast cancer;
- (29) SMAD2: [1] Cleft Lip|Cleft Palate;
- (30) NBN: [2] Cleft Lip|Cleft Palate; breast cancer;
- (31) UBE2I: [1] breast cancer;
- (33) NCOA3: [2] Type 2 Diabetes| edema | rosiglitazone; breast cancer;
- (34) SMAD4: [2] Type 2 Diabetes| edema | rosiglitazone; Cleft Lip|Cleft Palate;
- (35) PRKCZ: [1] Type 2 Diabetes| edema | rosiglitazone;
- (36) CDK6: [2] Type 2 Diabetes| edema | rosiglitazone; breast cancer;
- (37) RXRA: [1] Type 2 Diabetes| edema | rosiglitazone;
- (38) ADRBK1: [1] Type 2 Diabetes| edema | rosiglitazone;
- (40) THBS1: [1] Type 2 Diabetes| edema | rosiglitazone;
- (41) RAD51: [1] breast cancer;

- (43) GSK3B: [2] Type 2 Diabetes| edema | rosiglitazone; breast cancer;
- (44) AHR: [2] Cleft Lip|Cleft Palate; breast cancer;
- (45) MAPK3: [1] bronchodilator response;
- (52) STAT2: [1] Type 2 Diabetes| edema | rosiglitazone;
- (55) TRAF6: [1] Type 2 Diabetes| edema | rosiglitazone;
- (60) PRKDC: [1] breast cancer;
- (61) CDKN1A: [2] Type 2 Diabetes| edema | rosiglitazone; breast cancer;
- (63) PAG1: [1] Type 2 Diabetes| edema | rosiglitazone;
- (65) RFC1: [3] Type 2 Diabetes| edema | rosiglitazone; Cleft Lip|Cleft Palate; breast cancer;
- (66) FANCG: [2] Type 2 Diabetes| edema | rosiglitazone; breast cancer;
14. NCOA2:
- (1) STAT5A: [2] plasma HDL cholesterol (HDL-C) levels; breast cancer;
- (2) PIK3R1: [4] prostate cancer; Tobacco Use Disorder; Type 2 Diabetes| edema | rosiglitazone; plasma HDL cholesterol (HDL-C) levels;
- (4) PLCG1: [1] Type 2 Diabetes| edema | rosiglitazone;
- (5) GRB2: [3] Tobacco Use Disorder; Type 2 Diabetes| edema | rosiglitazone; plasma HDL cholesterol (HDL-C) levels;
- (6) SMAD3: [4] prostate cancer; Tobacco Use Disorder; Bone Mineral Density; breast cancer;
- (8) JUN: [2] Type 2 Diabetes| edema | rosiglitazone; breast cancer;
- (9) SP1: [1] plasma HDL cholesterol (HDL-C) levels;
- (12) SHC1: [3] Tobacco Use Disorder; plasma HDL cholesterol (HDL-C) levels; breast cancer;
- (13) HSP90AA1: [3] Type 2 Diabetes| edema | rosiglitazone; breast cancer; bronchodilator response;
- (17) CEBPB: [2] Bone Mineral Density; plasma HDL cholesterol (HDL-C) levels;
- (18) HDAC1: [2] Tobacco Use Disorder; bronchodilator response;
- (19) MED1: [3] prostate cancer; plasma HDL cholesterol (HDL-C) levels; breast cancer;
- (20) PTK2B: [2] Tobacco Use Disorder; Type 2 Diabetes| edema | rosiglitazone;
- (21) CASP3: [2] Type 2 Diabetes| edema | rosiglitazone; Bone Mineral Density;
- (22) RELA: [3] Type 2 Diabetes| edema | rosiglitazone; plasma HDL cholesterol (HDL-C) levels; breast cancer;
- (23) PRKCD: [2] Tobacco Use Disorder; Type 2 Diabetes| edema | rosiglitazone;
- (24) MDM4: [4] prostate cancer; Tobacco Use Disorder; Type 2 Diabetes| edema | rosiglitazone; breast cancer;
- (25) HIF1A: [3] prostate cancer; Type 2 Diabetes| edema | rosiglitazone; breast cancer;
- (26) FYN: [1] Type 2 Diabetes| edema | rosiglitazone;
- (27) MAPK1: [3] Type 2 Diabetes| edema | rosiglitazone; breast cancer; bronchodilator response;
- (28) NFKB1: [6] prostate cancer; Tobacco Use Disorder; Type 2 Diabetes| edema | rosiglitazone; Bone Mineral Density; plasma HDL cholesterol (HDL-C) levels; breast cancer;
- (29) SMAD2: [1] Bone Mineral Density;
- (30) NBN: [3] prostate cancer; Tobacco Use Disorder; breast cancer;
- (31) UBE2I: [2] plasma HDL cholesterol (HDL-C) levels; breast cancer;
- (32) IKBKB: [1] Bone Mineral Density;
- (33) NCOA3: [5] prostate cancer; Type 2 Diabetes| edema | rosiglitazone; Bone Mineral Density; plasma HDL cholesterol (HDL-C) levels; breast cancer;
- (34) SMAD4: [2] Type 2 Diabetes| edema | rosiglitazone; Bone Mineral Density;
- (35) PRKCZ: [1] Type 2 Diabetes| edema | rosiglitazone;
- (36) CDK6: [3] Type 2 Diabetes| edema | rosiglitazone; Bone Mineral Density; breast cancer;
- (37) RXRA: [5] prostate cancer; Tobacco Use Disorder; Type 2 Diabetes| edema | rosiglitazone; Bone Mineral Density; plasma HDL cholesterol (HDL-C) levels;
- (38) ADRBK1: [1] Type 2 Diabetes| edema | rosiglitazone;
- (39) NCOA6: [2] Tobacco Use Disorder; plasma HDL cholesterol (HDL-C) levels;
- (40) THBS1: [2] prostate cancer; Type 2 Diabetes| edema | rosiglitazone;
- (41) RAD51: [2] prostate cancer; breast cancer;
- (43) GSK3B: [4] Type 2 Diabetes| edema | rosiglitazone; Bone Mineral Density; plasma HDL cholesterol (HDL-C) levels; breast cancer;
- (44) AHR: [1] breast cancer;
- (45) MAPK3: [3] Bone Mineral Density; plasma HDL cholesterol (HDL-C) levels; bronchodilator response;
- (49) LYN: [1] Tobacco Use Disorder;
- (51) HIPK2: [1] Tobacco Use Disorder;
- (52) STAT2: [1] Type 2 Diabetes| edema | rosiglitazone;
- (55) TRAF6: [2] Type 2 Diabetes| edema | rosiglitazone; Bone Mineral Density;
- (59) MNAT1: [1] Tobacco Use Disorder;
- (60) PRKDC: [3] prostate cancer; Tobacco Use Disorder; breast cancer;
- (61) CDKN1A: [4] prostate cancer; Type 2 Diabetes| edema | rosiglitazone; Bone Mineral Density; breast cancer;
- (62) MYOD1: [1] Bone Mineral Density;
- (63) PAG1: [2] Tobacco Use Disorder; Type 2 Diabetes| edema | rosiglitazone;
- (64) APH1A: [1] Tobacco Use Disorder;
- (65) RFC1: [3] prostate cancer; Type 2 Diabetes| edema | rosiglitazone; breast cancer;

- (66) FANCG: [3] prostate cancer; Type 2 Diabetes| edema | rosiglitazone; breast cancer;
15. KAT2B:
- (8) JUN: [1] ovarian cancer;
 - (24) MDM4: [1] ovarian cancer;
 - (25) HIF1A: [1] ovarian cancer;
 - (27) MAPK1: [1] ovarian cancer;
 - (30) NBN: [1] ovarian cancer;
 - (33) NCOA3: [1] ovarian cancer;
 - (36) CDK6: [1] ovarian cancer;
 - (41) RAD51: [1] ovarian cancer;
 - (61) CDKN1A: [1] ovarian cancer;
16. DAXX:
- (1) STAT5A: [1] Precursor Cell Lymphoblastic Leukemia-Lymphoma;
 - (2) PIK3R1: [1] Cholesterol;
 - (6) SMAD3: [1] diabetes, type 1;
 - (28) NFKB1: [2] Precursor Cell Lymphoblastic Leukemia-Lymphoma; diabetes, type 1;
 - (33) NCOA3: [1] Precursor Cell Lymphoblastic Leukemia-Lymphoma;
 - (34) SMAD4: [1] diabetes, type 1;
 - (36) CDK6: [1] diabetes, type 1;
 - (46) MDC1: [1] Lupus Erythematosus, Systemic;
 - (48) CD28: [2] Precursor Cell Lymphoblastic Leukemia-Lymphoma; diabetes, type 1;
 - (49) LYN: [1] Lupus Erythematosus, Systemic;
 - (59) MNAT1: [1] Cholesterol;
 - (65) RFC1: [1] Precursor Cell Lymphoblastic Leukemia-Lymphoma;
17. CEBPB:
- (1) STAT5A: [1] plasma HDL cholesterol (HDL-C) levels;
 - (2) PIK3R1: [1] plasma HDL cholesterol (HDL-C) levels;
 - (3) PTPN6: [1] systemic lupus erythematosus;
 - (5) GRB2: [1] plasma HDL cholesterol (HDL-C) levels;
 - (6) SMAD3: [1] Bone Mineral Density;
 - (9) SP1: [1] plasma HDL cholesterol (HDL-C) levels;
 - (12) SHC1: [1] plasma HDL cholesterol (HDL-C) levels;
 - (14) NCOA2: [2] Bone Mineral Density; plasma HDL cholesterol (HDL-C) levels;
 - (19) MED1: [1] plasma HDL cholesterol (HDL-C) levels;
 - (21) CASP3: [1] Bone Mineral Density;
 - (22) RELA: [1] plasma HDL cholesterol (HDL-C) levels;
 - (28) NFKB1: [2] Bone Mineral Density; plasma HDL cholesterol (HDL-C) levels;
 - (29) SMAD2: [1] Bone Mineral Density;
 - (31) UBE2I: [1] plasma HDL cholesterol (HDL-C) levels;
 - (32) IKBKB: [1] Bone Mineral Density;
 - (33) NCOA3: [2] Bone Mineral Density; plasma HDL cholesterol (HDL-C) levels;
 - (34) SMAD4: [1] Bone Mineral Density;
 - (36) CDK6: [1] Bone Mineral Density;
 - (37) RXRA: [2] Bone Mineral Density; plasma HDL cholesterol (HDL-C) levels;
 - (39) NCOA6: [1] plasma HDL cholesterol (HDL-C) levels;
 - (42) YWHAB: [1] systemic lupus erythematosus;
 - (43) GSK3B: [2] Bone Mineral Density; plasma HDL cholesterol (HDL-C) levels;
 - (45) MAPK3: [2] Bone Mineral Density; plasma HDL cholesterol (HDL-C) levels;
 - (46) MDC1: [1] Behcet Syndrome;
 - (55) TRAF6: [1] Bone Mineral Density;
 - (61) CDKN1A: [1] Bone Mineral Density;
 - (62) MYOD1: [1] Bone Mineral Density;
18. HDAC1:
- (2) PIK3R1: [1] Tobacco Use Disorder;
 - (5) GRB2: [1] Tobacco Use Disorder;
 - (6) SMAD3: [2] Tobacco Use Disorder; epithelial ovarian cancer;
 - (12) SHC1: [1] Tobacco Use Disorder;
 - (13) HSP90AA1: [1] bronchodilator response;
 - (14) NCOA2: [2] Tobacco Use Disorder; bronchodilator response;
 - (20) PTK2B: [1] Tobacco Use Disorder;
 - (23) PRKCD: [1] Tobacco Use Disorder;
 - (24) MDM4: [1] Tobacco Use Disorder;
 - (27) MAPK1: [1] bronchodilator response;
 - (28) NFKB1: [1] Tobacco Use Disorder;

- (30) NBN: [2] Tobacco Use Disorder; epithelial ovarian cancer;
- (33) NCOA3: [1] epithelial ovarian cancer;
- (37) RXRA: [1] Tobacco Use Disorder;
- (39) NCOA6: [1] Tobacco Use Disorder;
- (41) RAD51: [1] epithelial ovarian cancer;
- (45) MAPK3: [1] bronchodilator response;
- (49) LYN: [1] Tobacco Use Disorder;
- (51) HIPK2: [1] Tobacco Use Disorder;
- (59) MNAT1: [1] Tobacco Use Disorder;
- (60) PRKDC: [1] Tobacco Use Disorder;
- (61) CDKN1A: [1] epithelial ovarian cancer;
- (63) PAG1: [1] Tobacco Use Disorder;
- (64) APH1A: [1] Tobacco Use Disorder;
- (66) FANCG: [1] epithelial ovarian cancer;
19. MED1:
- (1) STAT5A: [2] plasma HDL cholesterol (HDL-C) levels; breast cancer;
- (2) PIK3R1: [2] prostate cancer; plasma HDL cholesterol (HDL-C) levels;
- (5) GRB2: [1] plasma HDL cholesterol (HDL-C) levels;
- (6) SMAD3: [2] prostate cancer; breast cancer;
- (8) JUN: [1] breast cancer;
- (9) SP1: [1] plasma HDL cholesterol (HDL-C) levels;
- (12) SHC1: [2] plasma HDL cholesterol (HDL-C) levels; breast cancer;
- (13) HSP90AA1: [1]breast cancer;
- (14) NCOA2: [3] prostate cancer; plasma HDL cholesterol (HDL-C) levels; breast cancer;
- (17) CEBPB: [1] plasma HDL cholesterol (HDL-C) levels;
- (22) RELA: [2]plasma HDL cholesterol (HDL-C) levels; breast cancer;
- (24) MDM4: [2] prostate cancer; breast cancer;
- (25) HIF1A: [2] prostate cancer; breast cancer;
- (27) MAPK1: [1] breast cancer;
- (28) NFKB1: [3] prostate cancer; plasma HDL cholesterol (HDL-C) levels; breast cancer;
- (30) NBN: [2] prostate cancer; breast cancer;
- (31) UBE2I: [2] plasma HDL cholesterol (HDL-C) levels; breast cancer;
- (33) NCOA3: [3] prostate cancer; plasma HDL cholesterol (HDL-C) levels; breast cancer;
- (36) CDK6: [1]breast cancer;
- (37) RXRA: [2] prostate cancer; plasma HDL cholesterol (HDL-C) levels;
- (39) NCOA6: [1] plasma HDL cholesterol (HDL-C) levels;
- (40) THBS1: [1] prostate cancer;
- (41) RAD51: [2] prostate cancer; breast cancer;
- (43) GSK3B: [2] plasma HDL cholesterol (HDL-C) levels; breast cancer;
- (44) AHR: [1] breast cancer;
- (45) MAPK3: [1] plasma HDL cholesterol (HDL-C) levels;
- (60) PRKDC: [2] prostate cancer; breast cancer;
- (61) CDKN1A: [2] prostate cancer; breast cancer;
- (65) RFC1: [2] prostate cancer; breast cancer;
- (66) FANCG: [2] prostate cancer; breast cancer;
20. PTK2B:
- (2) PIK3R1: [4] Tobacco Use Disorder; Type 2 Diabetes| edema | rosiglitazone; longevity; HIV;
- (4) PLCG1: [3]Type 2 Diabetes| edema | rosiglitazone; HIV; Chronic renal failure|Kidney Failure, Chronic;
- (5) GRB2: [2] Tobacco Use Disorder; Type 2 Diabetes| edema | rosiglitazone;
- (6) SMAD3: [1] Tobacco Use Disorder;
- (7) PTK2: [1] HIV;
- (8) JUN: [2] Type 2 Diabetes| edema | rosiglitazone; Chronic renal failure|Kidney Failure, Chronic;
- (12) SHC1: [2] Tobacco Use Disorder; longevity;
- (13) HSP90AA1: [1]Type 2 Diabetes| edema | rosiglitazone;
- (14) NCOA2: [2] Tobacco Use Disorder; Type 2 Diabetes| edema | rosiglitazone;
- (18) HDAC1: [1] Tobacco Use Disorder;
- (21) CASP3: [2] Type 2 Diabetes| edema | rosiglitazone; Chronic renal failure|Kidney Failure, Chronic;
- (22) RELA: [1]Type 2 Diabetes| edema | rosiglitazone;
- (23) PRKCD: [2] Tobacco Use Disorder; Type 2 Diabetes| edema | rosiglitazone;
- (24) MDM4: [2] Tobacco Use Disorder; Type 2 Diabetes| edema | rosiglitazone;
- (25) HIF1A: [3] Type 2 Diabetes| edema | rosiglitazone; longevity; Chronic renal failure|Kidney Failure, Chronic;
- (26) FYN: [3] Type 2 Diabetes| edema | rosiglitazone; Insulin Resistance; HIV;
- (27) MAPK1: [3] Type 2 Diabetes| edema | rosiglitazone; HIV; Chronic renal failure|Kidney Failure, Chronic;
- (28) NFKB1: [3] Tobacco Use Disorder; Type 2 Diabetes| edema | rosiglitazone; Chronic renal failure|Kidney Failure, Chronic;

- (30) NBN: [2] Tobacco Use Disorder; Chronic renal failure|Kidney Failure, Chronic;
- (32) IKBKB: [1] HIV;
- (33) NCOA3: [1] Type 2 Diabetes| edema | rosiglitazone;
- (34) SMAD4: [1] Type 2 Diabetes| edema | rosiglitazone;
- (35) PRKCZ: [1] Type 2 Diabetes| edema | rosiglitazone;
- (36) CDK6: [2]Type 2 Diabetes| edema | rosiglitazone; Chronic renal failure|Kidney Failure, Chronic;
- (37) RXRA: [3] Tobacco Use Disorder; Type 2 Diabetes| edema | rosiglitazone; Chronic renal failure|Kidney Failure, Chronic;
- (38) ADRBK1: [1] Type 2 Diabetes| edema | rosiglitazone;
- (39) NCOA6: [1] Tobacco Use Disorder;
- (40) THBS1: [2] Type 2 Diabetes| edema | rosiglitazone; Chronic renal failure|Kidney Failure, Chronic;
- (43) GSK3B: [1] Type 2 Diabetes| edema | rosiglitazone;
- (44) AHR: [1] Chronic renal failure|Kidney Failure, Chronic;
- (48) CD28: [1] Chronic renal failure|Kidney Failure, Chronic;
- (49) LYN: [2] Tobacco Use Disorder; HIV;
- (51) HIPK2: [1] Tobacco Use Disorder;
- (52) STAT2: [1] Type 2 Diabetes| edema | rosiglitazone;
- (55) TRAF6: [2] Type 2 Diabetes| edema | rosiglitazone; HIV;
- (57) FOXO3: [1] longevity;
- (59) MNAT1: [1] Tobacco Use Disorder;
- (60) PRKDC: [1] Tobacco Use Disorder;
- (61) CDKN1A: [2] Type 2 Diabetes| edema | rosiglitazone; Chronic renal failure|Kidney Failure, Chronic;
- (63) PAG1: [2] Tobacco Use Disorder; Type 2 Diabetes| edema | rosiglitazone;
- (64) APH1A: [1] Tobacco Use Disorder;
- (65) RFC1: [1] Type 2 Diabetes| edema | rosiglitazone;
- (66) FANCG: [1] Type 2 Diabetes| edema | rosiglitazone;
21. CASP3:
- (2) PIK3R1: [1] Type 2 Diabetes| edema | rosiglitazone;
- (4) PLCG1: [3] Type 2 Diabetes| edema | rosiglitazone; Chronic renal failure|Kidney Failure, Chronic; multiple sclerosis;
- (5) GRB2: [1] Type 2 Diabetes| edema | rosiglitazone;
- (6) SMAD3: [1] Bone Mineral Density;
- (7) PTK2: [2] Leukemia, Myelogenous, Chronic, BCR-ABL Positive|Neovascularization, Pathologic; Leukemia, Myelogenous, Chronic, BCR-ABL Positive;
- (8) JUN: [2] Type 2 Diabetes| edema | rosiglitazone; Chronic renal failure|Kidney Failure, Chronic;
- (13) HSP90AA1: [1]Type 2 Diabetes| edema | rosiglitazone;
- (14) NCOA2: [2] Type 2 Diabetes| edema | rosiglitazone; Bone Mineral Density;
- (17) CEBPB: [1] Bone Mineral Density;
- (20) PTK2B: [2] Type 2 Diabetes| edema | rosiglitazone; Chronic renal failure|Kidney Failure, Chronic;
- (22) RELA: [4]Hodgkin Disease|Leukemia, Lymphocytic, Chronic, B-Cell|Lymphoproliferative Disorders|Waldenstrom Macroglobulinemia; Type 2 Diabetes| edema | rosiglitazone; benzene haematotoxicity; Multiple Myeloma;
- (23) PRKCD: [1] Type 2 Diabetes| edema | rosiglitazone;
- (24) MDM4: [1] Type 2 Diabetes| edema | rosiglitazone;
- (25) HIF1A: [5] Type 2 Diabetes| edema | rosiglitazone; colorectal cancer; esophageal adenocarcinoma; lung cancer; Chronic renal failure|Kidney Failure, Chronic;
- (26) FYN: [1] Type 2 Diabetes| edema | rosiglitazone;
- (27) MAPK1: [2] Type 2 Diabetes| edema | rosiglitazone; Chronic renal failure|Kidney Failure, Chronic;
- (28) NFKB1: [12] chronic obstructive pulmonary disease; Hodgkin Disease|Leukemia, Lymphocytic, Chronic, B-Cell|Lymphoproliferative Disorders|Waldenstrom Macroglobulinemia; Type 2 Diabetes| edema | rosiglitazone; colorectal cancer; benzene haematotoxicity; Bone Mineral Density; esophageal adenocarcinoma; Multiple Myeloma; bladder cancer; Lymphoma, Non-Hodgkin; lung cancer; Chronic renal failure|Kidney Failure, Chronic;
- (29) SMAD2: [2] Bone Mineral Density; esophageal adenocarcinoma;
- (30) NBN: [13]chronic obstructive pulmonary disease; Hodgkin Disease|Leukemia, Lymphocytic, Chronic, B-Cell|Lymphoproliferative Disorders|Waldenstrom Macroglobulinemia; colorectal cancer; benzene haematotoxicity; lymphoma, non-Hodgkin; esophageal adenocarcinoma; Leukemia, Lymphocytic, Chronic, B-Cell; bladder cancer; Lymphoma, Non-Hodgkin; lung cancer; Chronic renal failure|Kidney Failure, Chronic; Lymphoma, Non-Hodgkin|Lymphoma, Non-Hodgkin`s; multiple sclerosis;
- (31) UBE2I: [1] lung cancer;
- (32) IKBKB: [6] Hodgkin Disease|Leukemia, Lymphocytic, Chronic, B-Cell|Lymphoproliferative Disorders|Waldenstrom Macroglobulinemia; colorectal cancer; benzene haematotoxicity; Bone Mineral Density; Multiple Myeloma; Lymphoma, Non-Hodgkin;
- (33) NCOA3: [6] chronic obstructive pulmonary disease; Type 2 Diabetes| edema | rosiglitazone; Bone Mineral Density; bladder cancer; Lymphoma, Non-Hodgkin; lung cancer;
- (34) SMAD4: [2] Type 2 Diabetes| edema | rosiglitazone; Bone Mineral Density;
- (35) PRKCZ: [1] Type 2 Diabetes| edema | rosiglitazone;
- (36) CDK6: [6]Type 2 Diabetes| edema | rosiglitazone; Bone Mineral Density; esophageal adenocarcinoma; Leukemia, Lymphocytic, Chronic, B-Cell; bladder cancer; Chronic renal failure|Kidney Failure, Chronic;
- (37) RXRA: [7] chronic obstructive pulmonary disease; Type 2 Diabetes| edema | rosiglitazone; colorectal cancer; Bone

Mineral Density; bladder cancer; lung cancer; Chronic renal failure|Kidney Failure, Chronic;
(38) ADRBK1: [1] Type 2 Diabetes| edema | rosiglitazone;
(39) NCOA6: [1] lung cancer;
(40) THBS1: [4] Type 2 Diabetes| edema | rosiglitazone; colorectal cancer; esophageal adenocarcinoma; Chronic renal failure|Kidney Failure, Chronic;
(41) RAD51: [10] chronic obstructive pulmonary disease; Hodgkin Disease|Leukemia, Lymphocytic, Chronic, B-Cell|Lymphoproliferative Disorders|Waldenstrom Macroglobulinemia; colorectal cancer; benzene haematotoxicity; esophageal adenocarcinoma; Leukemia, Lymphocytic, Chronic, B-Cell; bladder cancer; lung cancer; Lymphoma, Non-Hodgkin|Lymphoma, Non-Hodgkin`s; multiple sclerosis;
(42) YWHAB: [1] Autism;
(43) GSK3B: [6] chronic obstructive pulmonary disease; Type 2 Diabetes| edema | rosiglitazone; Bone Mineral Density; esophageal adenocarcinoma; bladder cancer; lung cancer;
(44) AHR: [8] chronic obstructive pulmonary disease; colorectal cancer; esophageal adenocarcinoma; Multiple Myeloma; bladder cancer; Lymphoma, Non-Hodgkin; lung cancer; Chronic renal failure|Kidney Failure, Chronic;
(45) MAPK3: [2] Autism; Bone Mineral Density;
(46) MDC1: [1] Leukemia, Lymphocytic, Chronic, B-Cell;
(48) CD28: [8] Hodgkin Disease|Leukemia, Lymphocytic, Chronic, B-Cell|Lymphoproliferative Disorders|Waldenstrom Macroglobulinemia; colorectal cancer; benzene haematotoxicity; lymphoma, non-Hodgkin; Multiple Myeloma; Leukemia, Lymphocytic, Chronic, B-Cell; Chronic renal failure|Kidney Failure, Chronic; multiple sclerosis;
(52) STAT2: [1] Type 2 Diabetes| edema | rosiglitazone;
(55) TRAF6: [6] Hodgkin Disease|Leukemia, Lymphocytic, Chronic, B-Cell|Lymphoproliferative Disorders|Waldenstrom Macroglobulinemia; Type 2 Diabetes| edema | rosiglitazone; benzene haematotoxicity; Bone Mineral Density; Multiple Myeloma; Lymphoma, Non-Hodgkin|Lymphoma, Non-Hodgkin`s;
(56) CDX2: [1]colorectal cancer;
(58) PXN: [1] lung cancer;
(59) MNAT1: [2] lung cancer; multiple sclerosis;
(60) PRKDC: [7] Hodgkin Disease|Leukemia, Lymphocytic, Chronic, B-Cell|Lymphoproliferative Disorders|Waldenstrom Macroglobulinemia; benzene haematotoxicity; Leukemia, Lymphocytic, Chronic, B-Cell; bladder cancer; lung cancer; Lymphoma, Non-Hodgkin|Lymphoma, Non-Hodgkin`s; multiple sclerosis;
(61) CDKN1A: [7] Type 2 Diabetes| edema | rosiglitazone; colorectal cancer; Bone Mineral Density; esophageal adenocarcinoma; bladder cancer; lung cancer; Chronic renal failure|Kidney Failure, Chronic;
(62) MYOD1: [1] Bone Mineral Density;
(63) PAG1: [1] Type 2 Diabetes| edema | rosiglitazone;
(65) RFC1: [5] Type 2 Diabetes| edema | rosiglitazone; colorectal cancer; bladder cancer; lung cancer; multiple sclerosis;
(66) FANCG: [4] Type 2 Diabetes| edema | rosiglitazone; colorectal cancer; bladder cancer; lung cancer;

22. RELA:

(1) STAT5A: [2] plasma HDL cholesterol (HDL-C) levels; breast cancer;
(2) PIK3R1: [2] Type 2 Diabetes| edema | rosiglitazone; plasma HDL cholesterol (HDL-C) levels;
(4) PLCG1: [1] Type 2 Diabetes| edema | rosiglitazone;
(5) GRB2: [2] Type 2 Diabetes| edema | rosiglitazone; plasma HDL cholesterol (HDL-C) levels;
(6) SMAD3: [2] Hepatopulmonary Syndrome|Liver Cirrhosis; breast cancer;
(8) JUN: [2] Type 2 Diabetes| edema | rosiglitazone; breast cancer;
(9) SP1: [1] plasma HDL cholesterol (HDL-C) levels;
(12) SHC1: [2] plasma HDL cholesterol (HDL-C) levels; breast cancer;
(13) HSP90AA1: [2] Type 2 Diabetes| edema | rosiglitazone; breast cancer;
(14) NCOA2: [3] Type 2 Diabetes| edema | rosiglitazone; plasma HDL cholesterol (HDL-C) levels; breast cancer;
(17) CEBPB: [1] plasma HDL cholesterol (HDL-C) levels;
(19) MED1: [2] plasma HDL cholesterol (HDL-C) levels; breast cancer;
(20) PTK2B: [1] Type 2 Diabetes| edema | rosiglitazone;
(21) CASP3: [4] Hodgkin Disease|Leukemia, Lymphocytic, Chronic, B-Cell|Lymphoproliferative Disorders|Waldenstrom Macroglobulinemia; Type 2 Diabetes| edema | rosiglitazone; benzene haematotoxicity; Multiple Myeloma;
(23) PRKCD: [1] Type 2 Diabetes| edema | rosiglitazone;
(24) MDM4: [2] Type 2 Diabetes| edema | rosiglitazone; breast cancer;
(25) HIF1A: [3] Type 2 Diabetes| edema | rosiglitazone; Hepatopulmonary Syndrome|Liver Cirrhosis; breast cancer;
(26) FYN: [1] Type 2 Diabetes| edema | rosiglitazone;
(27) MAPK1: [2] Type 2 Diabetes| edema | rosiglitazone; breast cancer;
(28) NFKB1: [10] Arthritis, Rheumatoid|Rheumatoid Arthritis|Anti-TNF Response; normal variation; Hodgkin Disease|Leukemia, Lymphocytic, Chronic, B-Cell|Lymphoproliferative Disorders|Waldenstrom Macroglobulinemia; Type 2 Diabetes| edema | rosiglitazone; benzene haematotoxicity; Hepatopulmonary Syndrome|Liver Cirrhosis; Multiple Myeloma; plasma HDL cholesterol (HDL-C) levels; Arthritis, Rheumatoid; breast cancer;
(29) SMAD2: [1] Hepatopulmonary Syndrome|Liver Cirrhosis;
(30) NBN: [3] Hodgkin Disease|Leukemia, Lymphocytic, Chronic, B-Cell|Lymphoproliferative Disorders|Waldenstrom Macroglobulinemia; benzene haematotoxicity; breast cancer;
(31) UBE2I: [2] plasma HDL cholesterol (HDL-C) levels; breast cancer;

- (32) IKBKB: [5] Arthritis, Rheumatoid|Rheumatoid Arthritis|Anti-TNF Response; Hodgkin Disease|Leukemia, Lymphocytic, Chronic, B-Cell|Lymphoproliferative Disorders|Waldenstrom Macroglobulinemia; benzene haematotoxicity; Multiple Myeloma; Arthritis, Rheumatoid|;
- (33) NCOA3: [3] Type 2 Diabetes| edema | rosiglitazone; plasma HDL cholesterol (HDL-C) levels; breast cancer;
- (34) SMAD4: [2] Type 2 Diabetes| edema | rosiglitazone; Hepatopulmonary Syndrome|Liver Cirrhosis;
- (35) PRKCZ: [1] Type 2 Diabetes| edema | rosiglitazone;
- (36) CDK6: [3]Type 2 Diabetes| edema | rosiglitazone; breast cancer; Arthritis, Rheumatoid|;
- (37) RXRA: [3] normal variation; Type 2 Diabetes| edema | rosiglitazone; plasma HDL cholesterol (HDL-C) levels;
- (38) ADRBK1: [1] Type 2 Diabetes| edema | rosiglitazone;
- (39) NCOA6: [1] plasma HDL cholesterol (HDL-C) levels;
- (40) THBS1: [2] Type 2 Diabetes| edema | rosiglitazone; Hepatopulmonary Syndrome|Liver Cirrhosis;
- (41) RAD51: [3] Hodgkin Disease|Leukemia, Lymphocytic, Chronic, B-Cell|Lymphoproliferative Disorders|Waldenstrom Macroglobulinemia; benzene haematotoxicity; breast cancer;
- (43) GSK3B: [3] Type 2 Diabetes| edema | rosiglitazone; plasma HDL cholesterol (HDL-C) levels; breast cancer;
- (44) AHR: [2] Multiple Myeloma; breast cancer;
- (45) MAPK3: [1] plasma HDL cholesterol (HDL-C) levels;
- (47) CD2: [1] Arthritis, Rheumatoid|;
- (48) CD28: [4] Hodgkin Disease|Leukemia, Lymphocytic, Chronic, B-Cell|Lymphoproliferative Disorders|Waldenstrom Macroglobulinemia; benzene haematotoxicity; Multiple Myeloma; Arthritis, Rheumatoid|;
- (52) STAT2: [1] Type 2 Diabetes| edema | rosiglitazone;
- (53) KAT2A: [1] HIV Infections|[X]Human immunodeficiency virus disease;
- (55) TRAF6: [5] Hodgkin Disease|Leukemia, Lymphocytic, Chronic, B-Cell|Lymphoproliferative Disorders|Waldenstrom Macroglobulinemia; Type 2 Diabetes| edema | rosiglitazone; benzene haematotoxicity; Multiple Myeloma; Arthritis, Rheumatoid|;
- (60) PRKDC: [3] Hodgkin Disease|Leukemia, Lymphocytic, Chronic, B-Cell|Lymphoproliferative Disorders|Waldenstrom Macroglobulinemia; benzene haematotoxicity; breast cancer;
- (61) CDKN1A: [2] Type 2 Diabetes| edema | rosiglitazone; breast cancer;
- (63) PAG1: [1] Type 2 Diabetes| edema | rosiglitazone;
- (65) RFC1: [3] Type 2 Diabetes| edema | rosiglitazone; breast cancer; Arthritis, Rheumatoid|;
- (66) FANCG: [2] Type 2 Diabetes| edema | rosiglitazone; breast cancer;
23. PRKCD:
- (2) PIK3R1: [2] Tobacco Use Disorder; Type 2 Diabetes| edema | rosiglitazone;
- (4) PLCG1: [1] Type 2 Diabetes| edema | rosiglitazone;
- (5) GRB2: [2] Tobacco Use Disorder; Type 2 Diabetes| edema | rosiglitazone;
- (6) SMAD3: [1] Tobacco Use Disorder;
- (8) JUN: [1] Type 2 Diabetes| edema | rosiglitazone;
- (12) SHC1: [1] Tobacco Use Disorder;
- (13) HSP90AA1: [1]Type 2 Diabetes| edema | rosiglitazone;
- (14) NCOA2: [2] Tobacco Use Disorder; Type 2 Diabetes| edema | rosiglitazone;
- (18) HDAC1: [1] Tobacco Use Disorder;
- (20) PTK2B: [2] Tobacco Use Disorder; Type 2 Diabetes| edema | rosiglitazone;
- (21) CASP3: [1] Type 2 Diabetes| edema | rosiglitazone;
- (22) RELA: [1]Type 2 Diabetes| edema | rosiglitazone;
- (24) MDM4: [2] Tobacco Use Disorder; Type 2 Diabetes| edema | rosiglitazone;
- (25) HIF1A: [1] Type 2 Diabetes| edema | rosiglitazone;
- (26) FYN: [1] Type 2 Diabetes| edema | rosiglitazone;
- (27) MAPK1: [1] Type 2 Diabetes| edema | rosiglitazone;
- (28) NFKB1: [3] Tobacco Use Disorder; Type 2 Diabetes| edema | rosiglitazone; Type 2 diabetes;
- (30) NBN: [1] Tobacco Use Disorder;
- (33) NCOA3: [1] Type 2 Diabetes| edema | rosiglitazone;
- (34) SMAD4: [1] Type 2 Diabetes| edema | rosiglitazone;
- (35) PRKCZ: [2] Type 2 Diabetes| edema | rosiglitazone; Type 2 diabetes;
- (36) CDK6: [1]Type 2 Diabetes| edema | rosiglitazone;
- (37) RXRA: [2] Tobacco Use Disorder; Type 2 Diabetes| edema | rosiglitazone;
- (38) ADRBK1: [1] Type 2 Diabetes| edema | rosiglitazone;
- (39) NCOA6: [1] Tobacco Use Disorder;
- (40) THBS1: [1] Type 2 Diabetes| edema | rosiglitazone;
- (43) GSK3B: [1] Type 2 Diabetes| edema | rosiglitazone;
- (49) LYN: [1] Tobacco Use Disorder;
- (51) HIPK2: [1] Tobacco Use Disorder;
- (52) STAT2: [1] Type 2 Diabetes| edema | rosiglitazone;
- (55) TRAF6: [1] Type 2 Diabetes| edema | rosiglitazone;
- (59) MNAT1: [1] Tobacco Use Disorder;
- (60) PRKDC: [1] Tobacco Use Disorder;
- (61) CDKN1A: [1] Type 2 Diabetes| edema | rosiglitazone;

- (63) PAG1: [2] Tobacco Use Disorder; Type 2 Diabetes| edema | rosiglitazone;
- (64) APH1A: [1] Tobacco Use Disorder;
- (65) RFC1: [1] Type 2 Diabetes| edema | rosiglitazone;
- (66) FANCG: [1] Type 2 Diabetes| edema | rosiglitazone;
24. MDM4:
- (1) STAT5A: [1] breast cancer;
- (2) PIK3R1: [4] Neoplasms; prostate cancer; Tobacco Use Disorder; Type 2 Diabetes| edema | rosiglitazone;
- (4) PLCG1: [1] Type 2 Diabetes| edema | rosiglitazone;
- (5) GRB2: [2] Tobacco Use Disorder; Type 2 Diabetes| edema | rosiglitazone;
- (6) SMAD3: [4] prostate cancer; Tobacco Use Disorder; Head and Neck Neoplasms|Neoplasm Recurrence, Local|Neoplasms, Second Primary; breast cancer;
- (8) JUN: [5] Type 2 Diabetes| edema | rosiglitazone; Psychomotor Performance; Cognitive performance; ovarian cancer; breast cancer;
- (9) SP1: [1] Head and Neck Neoplasms|Neoplasm Recurrence, Local|Neoplasms, Second Primary;
- (12) SHC1: [2] Tobacco Use Disorder; breast cancer;
- (13) HSP90AA1: [2] Type 2 Diabetes| edema | rosiglitazone; breast cancer;
- (14) NCOA2: [4] prostate cancer; Tobacco Use Disorder; Type 2 Diabetes| edema | rosiglitazone; breast cancer;
- (15) KAT2B: [1] ovarian cancer;
- (18) HDAC1: [1] Tobacco Use Disorder;
- (19) MED1: [2] prostate cancer; breast cancer;
- (20) PTK2B: [2] Tobacco Use Disorder; Type 2 Diabetes| edema | rosiglitazone;
- (21) CASP3: [1] Type 2 Diabetes| edema | rosiglitazone;
- (22) RELA: [2] Type 2 Diabetes| edema | rosiglitazone; breast cancer;
- (23) PRKCD: [2] Tobacco Use Disorder; Type 2 Diabetes| edema | rosiglitazone;
- (25) HIF1A: [4] prostate cancer; Type 2 Diabetes| edema | rosiglitazone; ovarian cancer; breast cancer;
- (26) FYN: [1] Type 2 Diabetes| edema | rosiglitazone;
- (27) MAPK1: [4] Type 2 Diabetes| edema | rosiglitazone; Narcolepsy; ovarian cancer; breast cancer;
- (28) NFKB1: [5] Neoplasms; prostate cancer; Tobacco Use Disorder; Type 2 Diabetes| edema | rosiglitazone; breast cancer;
- (30) NBN: [5] Neoplasms; prostate cancer; Tobacco Use Disorder; ovarian cancer; breast cancer;
- (31) UBE2I: [1] breast cancer;
- (33) NCOA3: [4] prostate cancer; Type 2 Diabetes| edema | rosiglitazone; ovarian cancer; breast cancer;
- (34) SMAD4: [1] Type 2 Diabetes| edema | rosiglitazone;
- (35) PRKCZ: [1] Type 2 Diabetes| edema | rosiglitazone;
- (36) CDK6: [3] Type 2 Diabetes| edema | rosiglitazone; ovarian cancer; breast cancer;
- (37) RXRA: [4] prostate cancer; Tobacco Use Disorder; Type 2 Diabetes| edema | rosiglitazone; Head and Neck Neoplasms|Neoplasm Recurrence, Local|Neoplasms, Second Primary;
- (38) ADRBK1: [1] Type 2 Diabetes| edema | rosiglitazone;
- (39) NCOA6: [1] Tobacco Use Disorder;
- (40) THBS1: [2] prostate cancer; Type 2 Diabetes| edema | rosiglitazone;
- (41) RAD51: [4] Neoplasms; prostate cancer; ovarian cancer; breast cancer;
- (43) GSK3B: [2] Type 2 Diabetes| edema | rosiglitazone; breast cancer;
- (44) AHR: [1] breast cancer;
- (49) LYN: [1] Tobacco Use Disorder;
- (51) HIPK2: [1] Tobacco Use Disorder;
- (52) STAT2: [1] Type 2 Diabetes| edema | rosiglitazone;
- (54) NR4A1: [1] Narcolepsy;
- (55) TRAF6: [2] Type 2 Diabetes| edema | rosiglitazone; Narcolepsy;
- (59) MNAT1: [1] Tobacco Use Disorder;
- (60) PRKDC: [3] prostate cancer; Tobacco Use Disorder; breast cancer;
- (61) CDKN1A: [4] prostate cancer; Type 2 Diabetes| edema | rosiglitazone; ovarian cancer; breast cancer;
- (63) PAG1: [2] Tobacco Use Disorder; Type 2 Diabetes| edema | rosiglitazone;
- (64) APH1A: [1] Tobacco Use Disorder;
- (65) RFC1: [3] prostate cancer; Type 2 Diabetes| edema | rosiglitazone; breast cancer;
- (66) FANCG: [3] prostate cancer; Type 2 Diabetes| edema | rosiglitazone; breast cancer;
25. HIF1A:
- (1) STAT5A: [1] breast cancer;
- (2) PIK3R1: [6] prostate cancer; Type 2 Diabetes| edema | rosiglitazone; longevity; diabetes, type 2; BMI- Edema rosiglitazone or pioglitazone; Hypercholesterolemia|LDLC levels;
- (4) PLCG1: [2] Type 2 Diabetes| edema | rosiglitazone; Chronic renal failure|Kidney Failure, Chronic;
- (5) GRB2: [1] Type 2 Diabetes| edema | rosiglitazone;
- (6) SMAD3: [5] prostate cancer; Cleft Lip|Cleft Palate; Hepatopulmonary Syndrome|Liver Cirrhosis; diabetes, type 2; breast cancer;
- (8) JUN: [4] Type 2 Diabetes| edema | rosiglitazone; ovarian cancer; breast cancer; Chronic renal failure|Kidney Failure, Chronic;

- (12) SHC1: [3] longevity; diabetes, type 2; breast cancer;
- (13) HSP90AA1: [3] Type 2 Diabetes| edema | rosiglitazone; Cleft Lip|Cleft Palate; breast cancer;
- (14) NCOA2: [3] prostate cancer; Type 2 Diabetes| edema | rosiglitazone; breast cancer;
- (15) KAT2B: [1] ovarian cancer;
- (19) MED1: [2] prostate cancer; breast cancer;
- (20) PTK2B: [3] Type 2 Diabetes| edema | rosiglitazone; longevity; Chronic renal failure|Kidney Failure, Chronic;
- (21) CASP3: [5] Type 2 Diabetes| edema | rosiglitazone; colorectal cancer; esophageal adenocarcinoma; lung cancer; Chronic renal failure|Kidney Failure, Chronic;
- (22) RELA: [3] Type 2 Diabetes| edema | rosiglitazone; Hepatopulmonary Syndrome|Liver Cirrhosis; breast cancer;
- (23) PRKCD: [1] Type 2 Diabetes| edema | rosiglitazone;
- (24) MDM4: [4] prostate cancer; Type 2 Diabetes| edema | rosiglitazone; ovarian cancer; breast cancer;
- (26) FYN: [1] Type 2 Diabetes| edema | rosiglitazone;
- (27) MAPK1: [4] Type 2 Diabetes| edema | rosiglitazone; ovarian cancer; breast cancer; Chronic renal failure|Kidney Failure, Chronic;
- (28) NFKB1: [9] Stomach Neoplasms; prostate cancer; Type 2 Diabetes| edema | rosiglitazone; colorectal cancer; Hepatopulmonary Syndrome|Liver Cirrhosis; esophageal adenocarcinoma; lung cancer; breast cancer; Chronic renal failure|Kidney Failure, Chronic;
- (29) SMAD2: [3] Hepatopulmonary Syndrome|Liver Cirrhosis; Cleft Lip|Cleft Palate; esophageal adenocarcinoma;
- (30) NBN: [8] prostate cancer; colorectal cancer; Cleft Lip|Cleft Palate; esophageal adenocarcinoma; lung cancer; ovarian cancer; breast cancer; Chronic renal failure|Kidney Failure, Chronic;
- (31) UBE2I: [2] lung cancer; breast cancer;
- (32) IKBKB: [2] colorectal cancer; diabetes, type 2;
- (33) NCOA3: [5] prostate cancer; Type 2 Diabetes| edema | rosiglitazone; lung cancer; ovarian cancer; breast cancer;
- (34) SMAD4: [4] Stomach Neoplasms; Type 2 Diabetes| edema | rosiglitazone; Cleft Lip|Cleft Palate; Hepatopulmonary Syndrome|Liver Cirrhosis;
- (35) PRKCZ: [2] Type 2 Diabetes| edema | rosiglitazone; diabetes, type 2;
- (36) CDK6: [5] Type 2 Diabetes| edema | rosiglitazone; esophageal adenocarcinoma; ovarian cancer; breast cancer; Chronic renal failure|Kidney Failure, Chronic;
- (37) RXRA: [7] prostate cancer; Carcinoma, Renal Cell|Kidney Neoplasms; Type 2 Diabetes| edema | rosiglitazone; colorectal cancer; Hypercholesterolemia|LDLC levels; lung cancer; Chronic renal failure|Kidney Failure, Chronic;
- (38) ADRBK1: [1] Type 2 Diabetes| edema | rosiglitazone;
- (39) NCOA6: [1] lung cancer;
- (40) THBS1: [6] prostate cancer; Type 2 Diabetes| edema | rosiglitazone; colorectal cancer; Hepatopulmonary Syndrome|Liver Cirrhosis; esophageal adenocarcinoma; Chronic renal failure|Kidney Failure, Chronic;
- (41) RAD51: [6] prostate cancer; colorectal cancer; esophageal adenocarcinoma; lung cancer; ovarian cancer; breast cancer;
- (43) GSK3B: [6] Type 2 Diabetes| edema | rosiglitazone; esophageal adenocarcinoma; BMI- Edema rosiglitazone or pioglitazone; Hypercholesterolemia|LDLC levels; lung cancer; breast cancer;
- (44) AHR: [6] colorectal cancer; Cleft Lip|Cleft Palate; esophageal adenocarcinoma; lung cancer; breast cancer; Chronic renal failure|Kidney Failure, Chronic;
- (48) CD28: [2] colorectal cancer; Chronic renal failure|Kidney Failure, Chronic;
- (52) STAT2: [1] Type 2 Diabetes| edema | rosiglitazone;
- (55) TRAF6: [1] Type 2 Diabetes| edema | rosiglitazone;
- (56) CDX2: [1] colorectal cancer;
- (57) FOXO3: [1] longevity;
- (58) PXN: [1] lung cancer;
- (59) MNAT1: [1] lung cancer;
- (60) PRKDC: [4] kidney cancer; prostate cancer; lung cancer; breast cancer;
- (61) CDKN1A: [9] prostate cancer; Type 2 Diabetes| edema | rosiglitazone; colorectal cancer; esophageal cancer; esophageal adenocarcinoma; lung cancer; ovarian cancer; breast cancer; Chronic renal failure|Kidney Failure, Chronic;
- (63) PAG1: [1] Type 2 Diabetes| edema | rosiglitazone;
- (65) RFC1: [6] prostate cancer; Type 2 Diabetes| edema | rosiglitazone; colorectal cancer; Cleft Lip|Cleft Palate; lung cancer; breast cancer;
- (66) FANCG: [5] prostate cancer; Type 2 Diabetes| edema | rosiglitazone; colorectal cancer; lung cancer; breast cancer;
26. FYN:
- (1) STAT5A: [1] Lupus Erythematosus, Systemic|Systemic lupus erythematosus;
- (2) PIK3R1: [3] Alzheimer`s Disease; Type 2 Diabetes| edema | rosiglitazone; HIV;
- (3) PTPN6: [1] Lupus Erythematosus, Systemic|Systemic lupus erythematosus;
- (4) PLCG1: [2] Type 2 Diabetes| edema | rosiglitazone; HIV;
- (5) GRB2: [1] Type 2 Diabetes| edema | rosiglitazone;
- (6) SMAD3: [2] Asthma; Coronary Artery Disease;
- (7) PTK2: [1] HIV;
- (8) JUN: [1] Type 2 Diabetes| edema | rosiglitazone;
- (13) HSP90AA1: [1] Type 2 Diabetes| edema | rosiglitazone;
- (14) NCOA2: [1] Type 2 Diabetes| edema | rosiglitazone;

- (20) PTK2B: [3] Type 2 Diabetes| edema | rosiglitazone; Insulin Resistance; HIV;
- (21) CASP3: [1] Type 2 Diabetes| edema | rosiglitazone;
- (22) RELA: [1]Type 2 Diabetes| edema | rosiglitazone;
- (23) PRKCD: [1] Type 2 Diabetes| edema | rosiglitazone;
- (24) MDM4: [1] Type 2 Diabetes| edema | rosiglitazone;
- (25) HIF1A: [1] Type 2 Diabetes| edema | rosiglitazone;
- (27) MAPK1: [2] Type 2 Diabetes| edema | rosiglitazone; HIV;
- (28) NFKB1: [2] Parkinson`s disease; Type 2 Diabetes| edema | rosiglitazone;
- (30) NBN: [2] Parkinson`s disease; Lupus Erythematosus, Systemic|Systemic lupus erythematosus;
- (32) IKBKB: [1] HIV;
- (33) NCOA3: [1] Type 2 Diabetes| edema | rosiglitazone;
- (34) SMAD4: [1] Type 2 Diabetes| edema | rosiglitazone;
- (35) PRKCZ: [1] Type 2 Diabetes| edema | rosiglitazone;
- (36) CDK6: [1]Type 2 Diabetes| edema | rosiglitazone;
- (37) RXRA: [2] Type 2 Diabetes| edema | rosiglitazone; Coronary Artery Disease;
- (38) ADRBK1: [1] Type 2 Diabetes| edema | rosiglitazone;
- (40) THBS1: [1] Type 2 Diabetes| edema | rosiglitazone;
- (43) GSK3B: [4] Parkinson`s disease; Alzheimer`s Disease; Type 2 Diabetes| edema | rosiglitazone; schizophrenia;
- (47) CD2: [1] Waist-Hip Ratio;
- (48) CD28: [2] Asthma; Lupus Erythematosus, Systemic|Systemic lupus erythematosus;
- (49) LYN: [2] HIV; Lupus Erythematosus, Systemic|Systemic lupus erythematosus;
- (52) STAT2: [1] Type 2 Diabetes| edema | rosiglitazone;
- (55) TRAF6: [2] Type 2 Diabetes| edema | rosiglitazone; HIV;
- (57) FOXO3: [1] Cleft Lip|Cleft Palate|Tooth Abnormalities;
- (61) CDKN1A: [2] Type 2 Diabetes| edema | rosiglitazone; Lupus Erythematosus, Systemic|Systemic lupus erythematosus;
- (63) PAG1: [1] Type 2 Diabetes| edema | rosiglitazone;
- (65) RFC1: [1] Type 2 Diabetes| edema | rosiglitazone;
- (66) FANCG: [1] Type 2 Diabetes| edema | rosiglitazone;
27. MAPK1:
- (1) STAT5A: [1] breast cancer;
- (2) PIK3R1: [2] Type 2 Diabetes| edema | rosiglitazone; HIV;
- (4) PLCG1: [3] Type 2 Diabetes| edema | rosiglitazone; HIV; Chronic renal failure|Kidney Failure, Chronic;
- (5) GRB2: [2] Type 2 Diabetes| edema | rosiglitazone; Bulimia;
- (6) SMAD3: [2] Heart Rate; breast cancer;
- (7) PTK2: [3] Heart Rate; HIV; Multiple Sclerosis;
- (8) JUN: [5] alcohol consumption; Type 2 Diabetes| edema | rosiglitazone; ovarian cancer; breast cancer; Chronic renal failure|Kidney Failure, Chronic;
- (12) SHC1: [1] breast cancer;
- (13) HSP90AA1: [3]Type 2 Diabetes| edema | rosiglitazone; breast cancer; bronchodilator response;
- (14) NCOA2: [3] Type 2 Diabetes| edema | rosiglitazone; breast cancer; bronchodilator response;
- (15) KAT2B: [1] ovarian cancer;
- (18) HDAC1: [1] bronchodilator response;
- (19) MED1: [1] breast cancer;
- (20) PTK2B: [3] Type 2 Diabetes| edema | rosiglitazone; HIV; Chronic renal failure|Kidney Failure, Chronic;
- (21) CASP3: [2] Type 2 Diabetes| edema | rosiglitazone; Chronic renal failure|Kidney Failure, Chronic;
- (22) RELA: [2]Type 2 Diabetes| edema | rosiglitazone; breast cancer;
- (23) PRKCD: [1] Type 2 Diabetes| edema | rosiglitazone;
- (24) MDM4: [4] Type 2 Diabetes| edema | rosiglitazone; Narcolepsy; ovarian cancer; breast cancer;
- (25) HIF1A: [4] Type 2 Diabetes| edema | rosiglitazone; ovarian cancer; breast cancer; Chronic renal failure|Kidney Failure, Chronic;
- (26) FYN: [2] Type 2 Diabetes| edema | rosiglitazone; HIV;
- (28) NFKB1: [3] Type 2 Diabetes| edema | rosiglitazone; breast cancer; Chronic renal failure|Kidney Failure, Chronic;
- (30) NBN: [3] ovarian cancer; breast cancer; Chronic renal failure|Kidney Failure, Chronic;
- (31) UBE2I: [1] breast cancer;
- (32) IKBKB: [2] thyroid cancer; HIV;
- (33) NCOA3: [3] Type 2 Diabetes| edema | rosiglitazone; ovarian cancer; breast cancer;
- (34) SMAD4: [2] Type 2 Diabetes| edema | rosiglitazone; thyroid cancer;
- (35) PRKCZ: [1] Type 2 Diabetes| edema | rosiglitazone;
- (36) CDK6: [4]Type 2 Diabetes| edema | rosiglitazone; ovarian cancer; breast cancer; Chronic renal failure|Kidney Failure, Chronic;
- (37) RXRA: [2] Type 2 Diabetes| edema | rosiglitazone; Chronic renal failure|Kidney Failure, Chronic;
- (38) ADRBK1: [2] Type 2 Diabetes| edema | rosiglitazone; Bulimia;
- (40) THBS1: [2] Type 2 Diabetes| edema | rosiglitazone; Chronic renal failure|Kidney Failure, Chronic;
- (41) RAD51: [2] ovarian cancer; breast cancer;

(43) GSK3B: [4] alcohol consumption; Type 2 Diabetes| edema | rosiglitazone; breast cancer; Bulimia;

(44) AHR: [3] Heart Rate; breast cancer; Chronic renal failure|Kidney Failure, Chronic;

(45) MAPK3: [2] alcohol consumption; bronchodilator response;

(48) CD28: [1] Chronic renal failure|Kidney Failure, Chronic;

(49) LYN: [1] HIV;

(52) STAT2: [2] Type 2 Diabetes| edema | rosiglitazone; thyroid cancer;

(54) NR4A1: [1] Narcolepsy;

(55) TRAF6: [3] Type 2 Diabetes| edema | rosiglitazone; Narcolepsy; HIV;

(57) FOXO3: [1] Multiple Sclerosis;

(60) PRKDC: [1] breast cancer;

(61) CDKN1A: [4] Type 2 Diabetes| edema | rosiglitazone; ovarian cancer; breast cancer; Chronic renal failure|Kidney Failure, Chronic;

(63) PAG1: [2] Type 2 Diabetes| edema | rosiglitazone; Heart Rate;

(65) RFC1: [2] Type 2 Diabetes| edema | rosiglitazone; breast cancer;

(66) FANCG: [2] Type 2 Diabetes| edema | rosiglitazone; breast cancer;

28. NFKB1:

(1) STAT5A: [8] Birth Weight|Leukemia|Leukemia, Myeloid, Acute|Precursor Cell Lymphoblastic Leukemia-Lymphoma; hepatocellular carcinoma; Hepatitis C|Remission, Spontaneous; Precursor Cell Lymphoblastic Leukemia-Lymphoma; plasma HDL cholesterol (HDL-C) levels; Meningeal Neoplasms|meningioma; breast cancer; hepatitis C;

(2) PIK3R1: [6] Neoplasms; prostate cancer; Tobacco Use Disorder; Type 2 Diabetes| edema | rosiglitazone; plasma HDL cholesterol (HDL-C) levels; Body Weight;

(3) PTPN6: [2] Alzheimer`s disease; rheumatoid arthritis;

(4) PLCG1: [2] Type 2 Diabetes| edema | rosiglitazone; Chronic renal failure|Kidney Failure, Chronic;

(5) GRB2: [4] Tobacco Use Disorder; Type 2 Diabetes| edema | rosiglitazone; Alzheimer`s disease; plasma HDL cholesterol (HDL-C) levels;

(6) SMAD3: [9] prostate cancer; Body Height; Tobacco Use Disorder; Alzheimer`s disease; Hepatopulmonary Syndrome|Liver Cirrhosis; Bone Mineral Density; diabetes, type 1; breast cancer; Obesity|POF - Premature ovarian failure|POLYCYSTIC OVARIAN SYNDROME|Polycystic Ovary Syndrome|Primary Ovarian Insufficiency|Puberty, Delayed|Puberty, Precocious|Thrombophilia|Tobacco Use Disorder;

(7) PTK2: [1] hepatocellular carcinoma;

(8) JUN: [3] Type 2 Diabetes| edema | rosiglitazone; breast cancer; Chronic renal failure|Kidney Failure, Chronic;

(9) SP1: [1] plasma HDL cholesterol (HDL-C) levels;

(11) FHL2: [1] Body Weight;

(12) SHC1: [3] Tobacco Use Disorder; plasma HDL cholesterol (HDL-C) levels; breast cancer;

(13) HSP90AA1: [2] Type 2 Diabetes| edema | rosiglitazone; breast cancer;

(14) NCOA2: [6] prostate cancer; Tobacco Use Disorder; Type 2 Diabetes| edema | rosiglitazone; Bone Mineral Density; plasma HDL cholesterol (HDL-C) levels; breast cancer;

(16) DAXX: [2] Precursor Cell Lymphoblastic Leukemia-Lymphoma; diabetes, type 1;

(17) CEBPB: [2] Bone Mineral Density; plasma HDL cholesterol (HDL-C) levels;

(18) HDAC1: [1] Tobacco Use Disorder;

(19) MED1: [3] prostate cancer; plasma HDL cholesterol (HDL-C) levels; breast cancer;

(20) PTK2B: [3] Tobacco Use Disorder; Type 2 Diabetes| edema | rosiglitazone; Chronic renal failure|Kidney Failure, Chronic;

(21) CASP3: [12] chronic obstructive pulmonary disease; Hodgkin Disease|Leukemia, Lymphocytic, Chronic, B-Cell|Lymphoproliferative Disorders|Waldenstrom Macroglobulinemia; Type 2 Diabetes| edema | rosiglitazone; colorectal cancer; benzene haematotoxicity; Bone Mineral Density; esophageal adenocarcinoma; Multiple Myeloma; bladder cancer; Lymphoma, Non-Hodgkin; lung cancer; Chronic renal failure|Kidney Failure, Chronic;

(22) RELA: [10] Arthritis, Rheumatoid|Rheumatoid Arthritis|Anti-TNF Response; normal variation; Hodgkin Disease|Leukemia, Lymphocytic, Chronic, B-Cell|Lymphoproliferative Disorders|Waldenstrom Macroglobulinemia; Type 2 Diabetes| edema | rosiglitazone; benzene haematotoxicity; Hepatopulmonary Syndrome|Liver Cirrhosis; Multiple Myeloma; plasma HDL cholesterol (HDL-C) levels; Arthritis, Rheumatoid; breast cancer;

(23) PRKCD: [3] Tobacco Use Disorder; Type 2 Diabetes| edema | rosiglitazone; Type 2 diabetes;

(24) MDM4: [5] Neoplasms; prostate cancer; Tobacco Use Disorder; Type 2 Diabetes| edema | rosiglitazone; breast cancer;

(25) HIF1A: [9] Stomach Neoplasms; prostate cancer; Type 2 Diabetes| edema | rosiglitazone; colorectal cancer; Hepatopulmonary Syndrome|Liver Cirrhosis; esophageal adenocarcinoma; lung cancer; breast cancer; Chronic renal failure|Kidney Failure, Chronic;

(26) FYN: [2] Parkinson`s disease; Type 2 Diabetes| edema | rosiglitazone;

(27) MAPK1: [3] Type 2 Diabetes| edema | rosiglitazone; breast cancer; Chronic renal failure|Kidney Failure, Chronic;

(29) SMAD2: [4] Hepatopulmonary Syndrome|Liver Cirrhosis; Bone Mineral Density; esophageal adenocarcinoma; Obesity|POF - Premature ovarian failure|POLYCYSTIC OVARIAN SYNDROME|Polycystic Ovary Syndrome|Primary Ovarian Insufficiency|Puberty, Delayed|Puberty, Precocious|Thrombophilia|Tobacco Use Disorder;

(30) NBN: [15] Neoplasms; chronic obstructive pulmonary disease; Parkinson`s disease; prostate cancer; Tobacco Use Disorder; Hodgkin Disease|Leukemia, Lymphocytic, Chronic, B-Cell|Lymphoproliferative Disorders|Waldenstrom Macroglobulinemia; colorectal cancer; benzene haematotoxicity; esophageal adenocarcinoma; bladder cancer; Lymphoma, Non-Hodgkin; melanoma; lung cancer; breast cancer; Chronic renal failure|Kidney Failure, Chronic;

- (31) UBE2I: [4] Alzheimer`s disease; lung cancer; plasma HDL cholesterol (HDL-C) levels; breast cancer;
- (32) IKBKB: [9] Arthritis, Rheumatoid|Rheumatoid Arthritis|Anti-TNF Response; Hodgkin Disease|Leukemia, Lymphocytic, Chronic, B-Cell|Lymphoproliferative Disorders|Waldenstrom Macroglobulinemia; colorectal cancer; benzene haematotoxicity; Bone Mineral Density; Hepatitis C|Remission, Spontaneous; Multiple Myeloma; Lymphoma, Non-Hodgkin; Arthritis, Rheumatoid|;
- (33) NCOA3: [11] chronic obstructive pulmonary disease; Alcoholism; prostate cancer; Type 2 Diabetes| edema | rosiglitazone; Bone Mineral Density; Precursor Cell Lymphoblastic Leukemia-Lymphoma; bladder cancer; Lymphoma, Non-Hodgkin; lung cancer; plasma HDL cholesterol (HDL-C) levels; breast cancer;
- (34) SMAD4: [6] Stomach Neoplasms; Type 2 Diabetes| edema | rosiglitazone; Hepatopulmonary Syndrome|Liver Cirrhosis; Bone Mineral Density; diabetes, type 1; Obesity|POF - Premature ovarian failure|POLYCYSTIC OVARIAN SYNDROME|Polycystic Ovary Syndrome|Primary Ovarian Insufficiency|Puberty, Delayed|Puberty, Precocious|Thrombophilia|Tobacco Use Disorder;
- (35) PRK CZ: [3] Body Height; Type 2 Diabetes| edema | rosiglitazone; Type 2 diabetes;
- (36) CDK6: [10] Body Height; Type 2 Diabetes| edema | rosiglitazone; Bone Mineral Density; esophageal adenocarcinoma; rheumatoid arthritis; bladder cancer; diabetes, type 1; breast cancer; Arthritis, Rheumatoid|; Chronic renal failure|Kidney Failure, Chronic;
- (37) RXRA: [13] chronic obstructive pulmonary disease; normal variation; prostate cancer; Tobacco Use Disorder; Type 2 Diabetes| edema | rosiglitazone; colorectal cancer; Alzheimer`s disease; Bone Mineral Density; bladder cancer; lung cancer; plasma HDL cholesterol (HDL-C) levels; Chronic renal failure|Kidney Failure, Chronic; Body Weight;
- (38) ADRBK1: [1] Type 2 Diabetes| edema | rosiglitazone;
- (39) NCOA6: [3] Tobacco Use Disorder; lung cancer; plasma HDL cholesterol (HDL-C) levels;
- (40) THBS1: [9] prostate cancer; Type 2 Diabetes| edema | rosiglitazone; colorectal cancer; Hepatopulmonary Syndrome|Liver Cirrhosis; atherosclerosis; esophageal adenocarcinoma; Chorioamnionitis|Fetal Membranes, Premature Rupture|Infection of amniotic sac and membranes|Obstetric Labor, Premature|Pre-Eclampsia|Premature Birth; Chronic renal failure|Kidney Failure, Chronic; Chorioamnionitis|Fetal Membranes, Premature Rupture|Infection of amniotic sac and membranes;
- (41) RAD51: [10] Neoplasms; chronic obstructive pulmonary disease; prostate cancer; Hodgkin Disease|Leukemia, Lymphocytic, Chronic, B-Cell|Lymphoproliferative Disorders|Waldenstrom Macroglobulinemia; colorectal cancer; benzene haematotoxicity; esophageal adenocarcinoma; bladder cancer; lung cancer; breast cancer;
- (43) GSK3B: [11] chronic obstructive pulmonary disease; Parkinson`s disease; Alcoholism; Type 2 Diabetes| edema | rosiglitazone; Alzheimer`s disease; Bone Mineral Density; esophageal adenocarcinoma; bladder cancer; lung cancer; plasma HDL cholesterol (HDL-C) levels; breast cancer;
- (44) AHR: [10] chronic obstructive pulmonary disease; colorectal cancer; Alzheimer`s disease; esophageal adenocarcinoma; Multiple Myeloma; bladder cancer; Lymphoma, Non-Hodgkin; lung cancer; breast cancer; Chronic renal failure|Kidney Failure, Chronic;
- (45) MAPK3: [2] Bone Mineral Density; plasma HDL cholesterol (HDL-C) levels;
- (46) MDC1: [1] Abortion, Spontaneous;
- (47) CD2: [1] Arthritis, Rheumatoid|;
- (48) CD28: [11] Hodgkin Disease|Leukemia, Lymphocytic, Chronic, B-Cell|Lymphoproliferative Disorders|Waldenstrom Macroglobulinemia; colorectal cancer; benzene haematotoxicity; Hepatitis C|Remission, Spontaneous; Multiple Myeloma; Precursor Cell Lymphoblastic Leukemia-Lymphoma; melanoma; celiac disease; diabetes, type 1; Arthritis, Rheumatoid|; Chronic renal failure|Kidney Failure, Chronic;
- (49) LYN: [2] Tobacco Use Disorder; Body Weight;
- (51) HIPK2: [2] Tobacco Use Disorder; Diabetes Mellitus, Type 2;
- (52) STAT2: [7] Dengue Hemorrhagic Fever; Hepatitis C, Chronic|Liver Cirrhosis; Birth Weight|Leukemia|Leukemia, Myeloid, Acute|Precursor Cell Lymphoblastic Leukemia-Lymphoma; Type 2 Diabetes| edema | rosiglitazone; Psoriasis; Hepatitis C|Remission, Spontaneous; Meningeal Neoplasms|meningioma;
- (55) TRAF6: [10] Dengue Hemorrhagic Fever; Hodgkin Disease|Leukemia, Lymphocytic, Chronic, B-Cell|Lymphoproliferative Disorders|Waldenstrom Macroglobulinemia; Type 2 Diabetes| edema | rosiglitazone; Alzheimer`s disease; benzene haematotoxicity; Bone Mineral Density; Hepatitis C|Remission, Spontaneous; Multiple Myeloma; Crohn`s disease ulcerative colitis; Arthritis, Rheumatoid|;
- (56) CDX2: [1] colorectal cancer;
- (58) PXN: [1] lung cancer;
- (59) MNAT1: [2] Tobacco Use Disorder; lung cancer;
- (60) PRKDC: [8] prostate cancer; Tobacco Use Disorder; Hodgkin Disease|Leukemia, Lymphocytic, Chronic, B-Cell|Lymphoproliferative Disorders|Waldenstrom Macroglobulinemia; benzene haematotoxicity; bladder cancer; lung cancer; breast cancer; Body Weight;
- (61) CDKN1A: [11] prostate cancer; Type 2 Diabetes| edema | rosiglitazone; colorectal cancer; Bone Mineral Density; esophageal adenocarcinoma; bladder cancer; melanoma; lung cancer; breast cancer; Chronic renal failure|Kidney Failure, Chronic; oral cancer;
- (62) MYOD1: [1] Bone Mineral Density;
- (63) PAG1: [2] Tobacco Use Disorder; Type 2 Diabetes| edema | rosiglitazone;
- (64) APH1A: [2] Tobacco Use Disorder; Alzheimer`s disease;
- (65) RFC1: [11] Alcoholism; prostate cancer; Type 2 Diabetes| edema | rosiglitazone; colorectal cancer; Alzheimer`s disease; Precursor Cell Lymphoblastic Leukemia-Lymphoma; rheumatoid arthritis; bladder cancer; lung cancer; breast cancer; Arthritis, Rheumatoid|;
- (66) FANCG: [6] prostate cancer; Type 2 Diabetes| edema | rosiglitazone; colorectal cancer; bladder cancer; lung cancer; breast cancer;

29. SMAD2:

- (2) PIK3R1: [1] Pancreatic Neoplasms;
- (6) SMAD3: [8] Cleft Lip|Cleft Palate; Hepatopulmonary Syndrome|Liver Cirrhosis; Hypertension, Pulmonary; Bone Mineral Density; Pancreatic Neoplasms; colorectal cancer; Tourette syndrome; bone density; pregnancy loss, recurrent; cleft lip without cleft palate; juvenile polyposis; cleft palate; Obesity|POF - Premature ovarian failure|POLYCYSTIC OVARIAN SYNDROME|Polycystic Ovary Syndrome|Primary Ovarian Insufficiency|Puberty, Delayed|Puberty, Precocious|Thrombophilia|Tobacco Use Disorder; bone density;
- (13) HSP90AA1: [1]Cleft Lip|Cleft Palate;
- (14) NCOA2: [1] Bone Mineral Density;
- (17) CEBPB: [1] Bone Mineral Density;
- (21) CASP3: [2] Bone Mineral Density; esophageal adenocarcinoma;
- (22) RELA: [1]Hepatopulmonary Syndrome|Liver Cirrhosis;
- (25) HIF1A: [3] Cleft Lip|Cleft Palate; Hepatopulmonary Syndrome|Liver Cirrhosis; esophageal adenocarcinoma;
- (28) NFKB1: [4] Hepatopulmonary Syndrome|Liver Cirrhosis; Bone Mineral Density; esophageal adenocarcinoma; Obesity|POF - Premature ovarian failure|POLYCYSTIC OVARIAN SYNDROME|Polycystic Ovary Syndrome|Primary Ovarian Insufficiency|Puberty, Delayed|Puberty, Precocious|Thrombophilia|Tobacco Use Disorder;
- (30) NBN: [2] Cleft Lip|Cleft Palate; esophageal adenocarcinoma;
- (32) IKBKB: [1] Bone Mineral Density;
- (33) NCOA3: [1] Bone Mineral Density;
- (34) SMAD4: [8] Cleft Lip|Cleft Palate; Hepatopulmonary Syndrome|Liver Cirrhosis; Hypertension, Pulmonary; Bone Mineral Density; Pancreatic Neoplasms; colorectal cancer; Tourette syndrome; bone density; pregnancy loss, recurrent; cleft lip without cleft palate; juvenile polyposis; cleft palate; Obesity|POF - Premature ovarian failure|POLYCYSTIC OVARIAN SYNDROME|Polycystic Ovary Syndrome|Primary Ovarian Insufficiency|Puberty, Delayed|Puberty, Precocious|Thrombophilia|Tobacco Use Disorder; bone density;
- (36) CDK6: [2]Bone Mineral Density; esophageal adenocarcinoma;
- (37) RXRA: [1] Bone Mineral Density;
- (40) THBS1: [2] Hepatopulmonary Syndrome|Liver Cirrhosis; esophageal adenocarcinoma;
- (41) RAD51: [1] esophageal adenocarcinoma;
- (43) GSK3B: [2] Bone Mineral Density; esophageal adenocarcinoma;
- (44) AHR: [2] Cleft Lip|Cleft Palate; esophageal adenocarcinoma;
- (45) MAPK3: [1] Bone Mineral Density;
- (55) TRAF6: [1] Bone Mineral Density;
- (56) CDX2: [1]bone density;
- (61) CDKN1A: [3] Bone Mineral Density; esophageal adenocarcinoma; Pancreatic Neoplasms;
- (62) MYOD1: [1] Bone Mineral Density;
- (65) RFC1: [1] Cleft Lip|Cleft Palate;

30. NBN:

- (1) STAT5A: [2] breast cancer; Lupus Erythematosus, Systemic|Systemic lupus erythematosus;
- (2) PIK3R1: [3] Neoplasms; prostate cancer; Tobacco Use Disorder;
- (3) PTPN6: [1] Lupus Erythematosus, Systemic|Systemic lupus erythematosus;
- (4) PLAG1: [2]Chronic renal failure|Kidney Failure, Chronic; multiple sclerosis;
- (5) GRB2: [1] Tobacco Use Disorder;
- (6) SMAD3: [5] prostate cancer; Tobacco Use Disorder; Cleft Lip|Cleft Palate; epithelial ovarian cancer; breast cancer;
- (8) JUN: [3] ovarian cancer; breast cancer; Chronic renal failure|Kidney Failure, Chronic;
- (12) SHC1: [2] Tobacco Use Disorder; breast cancer;
- (13) HSP90AA1: [2]Cleft Lip|Cleft Palate; breast cancer;
- (14) NCOA2: [3] prostate cancer; Tobacco Use Disorder; breast cancer;
- (15) KAT2B: [1] ovarian cancer;
- (18) HDAC1: [2] Tobacco Use Disorder; epithelial ovarian cancer;
- (19) MED1: [2] prostate cancer; breast cancer;
- (20) PTK2B: [2] Tobacco Use Disorder; Chronic renal failure|Kidney Failure, Chronic;
- (21) CASP3: [13] chronic obstructive pulmonary disease; Hodgkin Disease|Leukemia, Lymphocytic, Chronic, B-Cell|Lymphoproliferative Disorders|Waldenstrom Macroglobulinemia; colorectal cancer; benzene haematotoxicity; lymphoma, non-Hodgkin; esophageal adenocarcinoma; Leukemia, Lymphocytic, Chronic, B-Cell; bladder cancer; Lymphoma, Non-Hodgkin; lung cancer; Chronic renal failure|Kidney Failure, Chronic; Lymphoma, Non-Hodgkin|Lymphoma, Non-Hodgkin`s; multiple sclerosis;
- (22) RELA: [3]Hodgkin Disease|Leukemia, Lymphocytic, Chronic, B-Cell|Lymphoproliferative Disorders|Waldenstrom Macroglobulinemia; benzene haematotoxicity; breast cancer;
- (23) PRKCD: [1] Tobacco Use Disorder;
- (24) MDM4: [5] Neoplasms; prostate cancer; Tobacco Use Disorder; ovarian cancer; breast cancer;
- (25) HIF1A: [8] prostate cancer; colorectal cancer; Cleft Lip|Cleft Palate; esophageal adenocarcinoma; lung cancer; ovarian cancer; breast cancer; Chronic renal failure|Kidney Failure, Chronic;
- (26) FYN: [2] Parkinson`s disease; Lupus Erythematosus, Systemic|Systemic lupus erythematosus;
- (27) MAPK1: [3] ovarian cancer; breast cancer; Chronic renal failure|Kidney Failure, Chronic;
- (28) NFKB1: [15] Neoplasms; chronic obstructive pulmonary disease; Parkinson`s disease; prostate cancer; Tobacco Use

Disorder; Hodgkin Disease|Leukemia, Lymphocytic, Chronic, B-Cell|Lymphoproliferative Disorders|Waldenstrom Macroglobulinemia; colorectal cancer; benzene haematotoxicity; esophageal adenocarcinoma; bladder cancer; Lymphoma, Non-Hodgkin; melanoma; lung cancer; breast cancer; Chronic renal failure|Kidney Failure, Chronic;

(29) SMAD2: [2] Cleft Lip|Cleft Palate; esophageal adenocarcinoma;

(31) UBE2I: [2] lung cancer; breast cancer;

(32) IKBKB: [4] Hodgkin Disease|Leukemia, Lymphocytic, Chronic, B-Cell|Lymphoproliferative Disorders|Waldenstrom Macroglobulinemia; colorectal cancer; benzene haematotoxicity; Lymphoma, Non-Hodgkin;

(33) NCOA3: [8] chronic obstructive pulmonary disease; prostate cancer; epithelial ovarian cancer; bladder cancer; Lymphoma, Non-Hodgkin; lung cancer; ovarian cancer; breast cancer;

(34) SMAD4: [1] Cleft Lip|Cleft Palate;

(36) CDK6: [7] Mouth Neoplasms|Precancerous Conditions; esophageal adenocarcinoma; Leukemia, Lymphocytic, Chronic, B-Cell; bladder cancer; ovarian cancer; breast cancer; Chronic renal failure|Kidney Failure, Chronic;

(37) RXRA: [7] chronic obstructive pulmonary disease; prostate cancer; Tobacco Use Disorder; colorectal cancer; bladder cancer; lung cancer; Chronic renal failure|Kidney Failure, Chronic;

(39) NCOA6: [2] Tobacco Use Disorder; lung cancer;

(40) THBS1: [4] prostate cancer; colorectal cancer; esophageal adenocarcinoma; Chronic renal failure|Kidney Failure, Chronic;

(41) RAD51: [24] Brain Neoplasms|Glioma; Neoplasms; chronic obstructive pulmonary disease; prostate cancer; leukemia; Hodgkin Disease|Leukemia, Lymphocytic, Chronic, B-Cell|Lymphoproliferative Disorders|Waldenstrom Macroglobulinemia; Colorectal Neoplasms; colorectal cancer; benzene haematotoxicity; Adenocarcinoma|Pancreatic Neoplasms; stomach cancer; esophageal adenocarcinoma; epithelial ovarian cancer; Leukemia, Lymphocytic, Chronic, B-Cell; Brain Neoplasms|Glioma|Meningeal Neoplasms|meningioma|Neuroma, Acoustic|Neuromas, Acoustic; bladder cancer; lung cancer; Thyroid Neoplasms; cytogenetic studies; ovarian cancer; breast cancer; Chromosome Aberrations|Chromosome abnormality; Lymphoma, Non-Hodgkin|Lymphoma, Non-Hodgkin`s; multiple sclerosis;

(43) GSK3B: [7] chronic obstructive pulmonary disease; Parkinson`s disease; stomach cancer; esophageal adenocarcinoma; bladder cancer; lung cancer; breast cancer;

(44) AHR: [11] chronic obstructive pulmonary disease; Colorectal Neoplasms; colorectal cancer; Cleft Lip|Cleft Palate; esophageal adenocarcinoma; lymphoma, Non-Hodgkin`s; bladder cancer; Lymphoma, Non-Hodgkin; lung cancer; breast cancer; Chronic renal failure|Kidney Failure, Chronic;

(46) MDC1: [2] Adenocarcinoma|Pancreatic Neoplasms; Leukemia, Lymphocytic, Chronic, B-Cell;

(48) CD28: [9] Hodgkin Disease|Leukemia, Lymphocytic, Chronic, B-Cell|Lymphoproliferative Disorders|Waldenstrom Macroglobulinemia; colorectal cancer; benzene haematotoxicity; lymphoma, non-Hodgkin; Leukemia, Lymphocytic, Chronic, B-Cell; melanoma; Chronic renal failure|Kidney Failure, Chronic; Lupus Erythematosus, Systemic|Systemic lupus erythematosus; multiple sclerosis;

(49) LYN: [2] Tobacco Use Disorder; Lupus Erythematosus, Systemic|Systemic lupus erythematosus;

(51) HIPK2: [1] Tobacco Use Disorder;

(55) TRAF6: [3] Hodgkin Disease|Leukemia, Lymphocytic, Chronic, B-Cell|Lymphoproliferative Disorders|Waldenstrom Macroglobulinemia; benzene haematotoxicity; Lymphoma, Non-Hodgkin|Lymphoma, Non-Hodgkin`s;

(56) CDX2: [1] colorectal cancer;

(58) PXN: [1] lung cancer;

(59) MNAT1: [3] Tobacco Use Disorder; lung cancer; multiple sclerosis;

(60) PRKDC: [11] Brain Neoplasms|Glioma; prostate cancer; Tobacco Use Disorder; Hodgkin Disease|Leukemia, Lymphocytic, Chronic, B-Cell|Lymphoproliferative Disorders|Waldenstrom Macroglobulinemia; benzene haematotoxicity; Leukemia, Lymphocytic, Chronic, B-Cell; bladder cancer; lung cancer; breast cancer; Lymphoma, Non-Hodgkin|Lymphoma, Non-Hodgkin`s; multiple sclerosis;

(61) CDKN1A: [17] Mouth Neoplasms|Precancerous Conditions; prostate cancer; leukemia; Colorectal Neoplasms; colorectal cancer; Chromosome Aberrations|DNA Damage; Adenocarcinoma|Pancreatic Neoplasms; stomach cancer; esophageal adenocarcinoma; epithelial ovarian cancer; bladder cancer; melanoma; lung cancer; ovarian cancer; breast cancer; Chronic renal failure|Kidney Failure, Chronic; Lupus Erythematosus, Systemic|Systemic lupus erythematosus;

(63) PAG1: [1] Tobacco Use Disorder;

(64) APH1A: [1] Tobacco Use Disorder;

(65) RFC1: [8] prostate cancer; colorectal cancer; Chromosome Aberrations|DNA Damage; Cleft Lip|Cleft Palate; bladder cancer; lung cancer; breast cancer; multiple sclerosis;

(66) FANCG: [8] prostate cancer; Colorectal Neoplasms; colorectal cancer; Adenocarcinoma|Pancreatic Neoplasms; epithelial ovarian cancer; bladder cancer; lung cancer; breast cancer;

31. UBE2I:

(1) STAT5A: [2] plasma HDL cholesterol (HDL-C) levels; breast cancer;

(2) PIK3R1: [1] plasma HDL cholesterol (HDL-C) levels;

(3) PTPN6: [1] Alzheimer`s disease;

(5) GRB2: [2] Alzheimer`s disease; plasma HDL cholesterol (HDL-C) levels;

(6) SMAD3: [2] Alzheimer`s disease; breast cancer;

(8) JUN: [1] breast cancer;

(9) SP1: [1] plasma HDL cholesterol (HDL-C) levels;

(12) SHC1: [2] plasma HDL cholesterol (HDL-C) levels; breast cancer;

(13) HSP90AA1: [1] breast cancer;

(14) NCOA2: [2] plasma HDL cholesterol (HDL-C) levels; breast cancer;

- (17) CEBPB: [1] plasma HDL cholesterol (HDL-C) levels;
- (19) MED1: [2] plasma HDL cholesterol (HDL-C) levels; breast cancer;
- (21) CASP3: [1] lung cancer;
- (22) RELA: [2] plasma HDL cholesterol (HDL-C) levels; breast cancer;
- (24) MDM4: [1] breast cancer;
- (25) HIF1A: [2] lung cancer; breast cancer;
- (27) MAPK1: [1] breast cancer;
- (28) NFKB1: [4] Alzheimer`s disease; lung cancer; plasma HDL cholesterol (HDL-C) levels; breast cancer;
- (30) NBN: [2] lung cancer; breast cancer;
- (33) NCOA3: [3] lung cancer; plasma HDL cholesterol (HDL-C) levels; breast cancer;
- (36) CDK6: [1] breast cancer;
- (37) RXRA: [3] Alzheimer`s disease; lung cancer; plasma HDL cholesterol (HDL-C) levels;
- (39) NCOA6: [2] lung cancer; plasma HDL cholesterol (HDL-C) levels;
- (41) RAD51: [2] lung cancer; breast cancer;
- (43) GSK3B: [4] Alzheimer`s disease; lung cancer; plasma HDL cholesterol (HDL-C) levels; breast cancer;
- (44) AHR: [3] Alzheimer`s disease; lung cancer; breast cancer;
- (45) MAPK3: [1] plasma HDL cholesterol (HDL-C) levels;
- (55) TRAF6: [1] Alzheimer`s disease;
- (58) PXN: [1] lung cancer;
- (59) MNAT1: [1] lung cancer;
- (60) PRKDC: [2] lung cancer; breast cancer;
- (61) CDKN1A: [2] lung cancer; breast cancer;
- (64) APH1A: [1] Alzheimer`s disease;
- (65) RFC1: [3] Alzheimer`s disease; lung cancer; breast cancer;
- (66) FANCG: [2] lung cancer; breast cancer;
32. IKBKB:
- (1) STAT5A: [4] Hepatitis C|Remission, Spontaneous; respiratory syncytial virus bronchiolitis; Bronchiolitis, Viral|Respiratory Syncytial Virus Infections; Asthma|Bronchiolitis, Viral|Respiratory Syncytial Virus Infections;
- (2) PIK3R1: [2] diabetes, type 2; HIV;
- (4) PLCG1: [1] HIV;
- (6) SMAD3: [2] Bone Mineral Density; diabetes, type 2;
- (7) PTK2: [1] HIV;
- (8) JUN: [2] respiratory syncytial virus bronchiolitis; Bronchiolitis, Viral|Respiratory Syncytial Virus Infections;
- (12) SHC1: [1] diabetes, type 2;
- (14) NCOA2: [1] Bone Mineral Density;
- (17) CEBPB: [1] Bone Mineral Density;
- (20) PTK2B: [1] HIV;
- (21) CASP3: [6] Hodgkin Disease|Leukemia, Lymphocytic, Chronic, B-Cell|Lymphoproliferative Disorders|Waldenstrom Macroglobulinemia; colorectal cancer; benzene haematotoxicity; Bone Mineral Density; Multiple Myeloma; Lymphoma, Non-Hodgkin;
- (22) RELA: [5] Arthritis, Rheumatoid|Rheumatoid Arthritis|Anti-TNF Response; Hodgkin Disease|Leukemia, Lymphocytic, Chronic, B-Cell|Lymphoproliferative Disorders|Waldenstrom Macroglobulinemia; benzene haematotoxicity; Multiple Myeloma; Arthritis, Rheumatoid|;
- (25) HIF1A: [2] colorectal cancer; diabetes, type 2;
- (26) FYN: [1] HIV;
- (27) MAPK1: [2] thyroid cancer; HIV;
- (28) NFKB1: [9] Arthritis, Rheumatoid|Rheumatoid Arthritis|Anti-TNF Response; Hodgkin Disease|Leukemia, Lymphocytic, Chronic, B-Cell|Lymphoproliferative Disorders|Waldenstrom Macroglobulinemia; colorectal cancer; benzene haematotoxicity; Bone Mineral Density; Hepatitis C|Remission, Spontaneous; Multiple Myeloma; Lymphoma, Non-Hodgkin; Arthritis, Rheumatoid|;
- (29) SMAD2: [1] Bone Mineral Density;
- (30) NBN: [4] Hodgkin Disease|Leukemia, Lymphocytic, Chronic, B-Cell|Lymphoproliferative Disorders|Waldenstrom Macroglobulinemia; colorectal cancer; benzene haematotoxicity; Lymphoma, Non-Hodgkin;
- (33) NCOA3: [2] Bone Mineral Density; Lymphoma, Non-Hodgkin;
- (34) SMAD4: [2] Bone Mineral Density; thyroid cancer;
- (35) PRKCZ: [1] diabetes, type 2;
- (36) CDK6: [2] Bone Mineral Density; Arthritis, Rheumatoid|;
- (37) RXRA: [2] colorectal cancer; Bone Mineral Density;
- (40) THBS1: [1] colorectal cancer;
- (41) RAD51: [3] Hodgkin Disease|Leukemia, Lymphocytic, Chronic, B-Cell|Lymphoproliferative Disorders|Waldenstrom Macroglobulinemia; colorectal cancer; benzene haematotoxicity;
- (43) GSK3B: [1] Bone Mineral Density;
- (44) AHR: [3] colorectal cancer; Multiple Myeloma; Lymphoma, Non-Hodgkin;
- (45) MAPK3: [1] Bone Mineral Density;
- (47) CD2: [1] Arthritis, Rheumatoid|;
- (48) CD28: [9] Hodgkin Disease|Leukemia, Lymphocytic, Chronic, B-Cell|Lymphoproliferative Disorders|Waldenstrom

Macroglobulinemia; colorectal cancer; benzene haematotoxicity; Hepatitis C|Remission, Spontaneous; Multiple Myeloma; respiratory syncytial virus bronchiolitis; Bronchiolitis, Viral|Respiratory Syncytial Virus Infections; Arthritis, Rheumatoid; Asthma|Bronchiolitis, Viral|Respiratory Syncytial Virus Infections;

(49) LYN: [1] HIV;

(52) STAT2: [2] Hepatitis C|Remission, Spontaneous; thyroid cancer;

(55) TRAF6: [7] Hodgkin Disease|Leukemia, Lymphocytic, Chronic, B-Cell|Lymphoproliferative Disorders|Waldenstrom

Macroglobulinemia; benzene haematotoxicity; Bone Mineral Density; Hepatitis C|Remission, Spontaneous; Multiple Myeloma; HIV; Arthritis, Rheumatoid;

(56) CDX2: [1] colorectal cancer;

(60) PRKDC: [2] Hodgkin Disease|Leukemia, Lymphocytic, Chronic, B-Cell|Lymphoproliferative Disorders|Waldenstrom

Macroglobulinemia; benzene haematotoxicity;

(61) CDKN1A: [2] colorectal cancer; Bone Mineral Density;

(62) MYOD1: [1] Bone Mineral Density;

(65) RFC1: [2] colorectal cancer; Arthritis, Rheumatoid;

(66) FANCG: [1] colorectal cancer;

33. NCOA3:

(1) STAT5A: [3] Precursor Cell Lymphoblastic Leukemia-Lymphoma; plasma HDL cholesterol (HDL-C) levels; breast cancer;

(2) PIK3R1: [3] prostate cancer; Type 2 Diabetes| edema | rosiglitazone; plasma HDL cholesterol (HDL-C) levels;

(4) PLAG1: [1] Type 2 Diabetes| edema | rosiglitazone;

(5) GRB2: [2] Type 2 Diabetes| edema | rosiglitazone; plasma HDL cholesterol (HDL-C) levels;

(6) SMAD3: [4] prostate cancer; Bone Mineral Density; epithelial ovarian cancer; breast cancer;

(8) JUN: [3] Type 2 Diabetes| edema | rosiglitazone; ovarian cancer; breast cancer;

(9) SP1: [1] plasma HDL cholesterol (HDL-C) levels;

(12) SHC1: [2] plasma HDL cholesterol (HDL-C) levels; breast cancer;

(13) HSP90AA1: [2] Type 2 Diabetes| edema | rosiglitazone; breast cancer;

(14) NCOA2: [5] prostate cancer; Type 2 Diabetes| edema | rosiglitazone; Bone Mineral Density; plasma HDL cholesterol (HDL-C) levels; breast cancer;

(15) KAT2B: [1] ovarian cancer;

(16) DAXX: [1] Precursor Cell Lymphoblastic Leukemia-Lymphoma;

(17) CEBPB: [2] Bone Mineral Density; plasma HDL cholesterol (HDL-C) levels;

(18) HDAC1: [1] epithelial ovarian cancer;

(19) MED1: [3] prostate cancer; plasma HDL cholesterol (HDL-C) levels; breast cancer;

(20) PTK2B: [1] Type 2 Diabetes| edema | rosiglitazone;

(21) CASP3: [6] chronic obstructive pulmonary disease; Type 2 Diabetes| edema | rosiglitazone; Bone Mineral Density; bladder cancer; Lymphoma, Non-Hodgkin; lung cancer;

(22) RELA: [3] Type 2 Diabetes| edema | rosiglitazone; plasma HDL cholesterol (HDL-C) levels; breast cancer;

(23) PRKCD: [1] Type 2 Diabetes| edema | rosiglitazone;

(24) MDM4: [4] prostate cancer; Type 2 Diabetes| edema | rosiglitazone; ovarian cancer; breast cancer;

(25) HIF1A: [5] prostate cancer; Type 2 Diabetes| edema | rosiglitazone; lung cancer; ovarian cancer; breast cancer;

(26) FYN: [1] Type 2 Diabetes| edema | rosiglitazone;

(27) MAPK1: [3] Type 2 Diabetes| edema | rosiglitazone; ovarian cancer; breast cancer;

(28) NFKB1: [11] chronic obstructive pulmonary disease; Alcoholism; prostate cancer; Type 2 Diabetes| edema | rosiglitazone; Bone Mineral Density; Precursor Cell Lymphoblastic Leukemia-Lymphoma; bladder cancer; Lymphoma, Non-Hodgkin; lung cancer; plasma HDL cholesterol (HDL-C) levels; breast cancer;

(29) SMAD2: [1] Bone Mineral Density;

(30) NBN: [8] chronic obstructive pulmonary disease; prostate cancer; epithelial ovarian cancer; bladder cancer; Lymphoma, Non-Hodgkin; lung cancer; ovarian cancer; breast cancer;

(31) UBE2I: [3] lung cancer; plasma HDL cholesterol (HDL-C) levels; breast cancer;

(32) IKBKB: [2] Bone Mineral Density; Lymphoma, Non-Hodgkin;

(34) SMAD4: [2] Type 2 Diabetes| edema | rosiglitazone; Bone Mineral Density;

(35) PRKCZ: [1] Type 2 Diabetes| edema | rosiglitazone;

(36) CDK6: [5] Type 2 Diabetes| edema | rosiglitazone; Bone Mineral Density; bladder cancer; ovarian cancer; breast cancer;

(37) RXRA: [7] chronic obstructive pulmonary disease; prostate cancer; Type 2 Diabetes| edema | rosiglitazone; Bone Mineral Density; bladder cancer; lung cancer; plasma HDL cholesterol (HDL-C) levels;

(38) ADRBK1: [1] Type 2 Diabetes| edema | rosiglitazone;

(39) NCOA6: [2] lung cancer; plasma HDL cholesterol (HDL-C) levels;

(40) THBS1: [2] prostate cancer; Type 2 Diabetes| edema | rosiglitazone;

(41) RAD51: [7] chronic obstructive pulmonary disease; prostate cancer; epithelial ovarian cancer; bladder cancer; lung cancer; ovarian cancer; breast cancer;

(43) GSK3B: [8] chronic obstructive pulmonary disease; Alcoholism; Type 2 Diabetes| edema | rosiglitazone; Bone Mineral Density; bladder cancer; lung cancer; plasma HDL cholesterol (HDL-C) levels; breast cancer;

(44) AHR: [5] chronic obstructive pulmonary disease; bladder cancer; Lymphoma, Non-Hodgkin; lung cancer; breast cancer;

(45) MAPK3: [2] Bone Mineral Density; plasma HDL cholesterol (HDL-C) levels;

(48) CD28: [1] Precursor Cell Lymphoblastic Leukemia-Lymphoma;

(52) STAT2: [1] Type 2 Diabetes| edema | rosiglitazone;

(55) TRAF6: [2] Type 2 Diabetes| edema | rosiglitazone; Bone Mineral Density;

(58) PXN: [1] lung cancer;

(59) MNAT1: [1] lung cancer;

(60) PRKDC: [4] prostate cancer; bladder cancer; lung cancer; breast cancer;

(61) CDKN1A: [8] prostate cancer; Type 2 Diabetes| edema | rosiglitazone; Bone Mineral Density; epithelial ovarian cancer; bladder cancer; lung cancer; ovarian cancer; breast cancer;

(62) MYOD1: [1] Bone Mineral Density;

(63) PAG1: [1] Type 2 Diabetes| edema | rosiglitazone;

(65) RFC1: [7] Alcoholism; prostate cancer; Type 2 Diabetes| edema | rosiglitazone; Precursor Cell Lymphoblastic Leukemia-Lymphoma; bladder cancer; lung cancer; breast cancer;

(66) FANCG: [6] prostate cancer; Type 2 Diabetes| edema | rosiglitazone; epithelial ovarian cancer; bladder cancer; lung cancer; breast cancer;

34. SMAD4:

(2) PIK3R1: [2] Type 2 Diabetes| edema | rosiglitazone; Pancreatic Neoplasms;

(4) PLCG1: [1] Type 2 Diabetes| edema | rosiglitazone;

(5) GRB2: [1] Type 2 Diabetes| edema | rosiglitazone;

(6) SMAD3: [9] Cleft Lip|Cleft Palate; Hepatopulmonary Syndrome|Liver Cirrhosis; Hypertension, Pulmonary; Bone Mineral Density; diabetes, type 1; Pancreatic Neoplasms; colorectal cancer; Tourette syndrome; bone density; pregnancy loss, recurrent; cleft lip without cleft palate; juvenile polyposis; cleft palate; Obesity|POF - Premature ovarian failure|POLYCYSTIC OVARIAN SYNDROME|Polycystic Ovary Syndrome|Primary Ovarian Insufficiency|Puberty, Delayed|Puberty, Precocious|Thrombophilia|Tobacco Use Disorder; bone density;

(8) JUN: [1] Type 2 Diabetes| edema | rosiglitazone;

(13) HSP90AA1: [2] Type 2 Diabetes| edema | rosiglitazone; Cleft Lip|Cleft Palate;

(14) NCOA2: [2] Type 2 Diabetes| edema | rosiglitazone; Bone Mineral Density;

(16) DAXX: [1] diabetes, type 1;

(17) CEBPB: [1] Bone Mineral Density;

(20) PTK2B: [1] Type 2 Diabetes| edema | rosiglitazone;

(21) CASP3: [2] Type 2 Diabetes| edema | rosiglitazone; Bone Mineral Density;

(22) RELA: [2] Type 2 Diabetes| edema | rosiglitazone; Hepatopulmonary Syndrome|Liver Cirrhosis;

(23) PRKCD: [1] Type 2 Diabetes| edema | rosiglitazone;

(24) MDM4: [1] Type 2 Diabetes| edema | rosiglitazone;

(25) HIF1A: [4] Stomach Neoplasms; Type 2 Diabetes| edema | rosiglitazone; Cleft Lip|Cleft Palate; Hepatopulmonary Syndrome|Liver Cirrhosis;

(26) FYN: [1] Type 2 Diabetes| edema | rosiglitazone;

(27) MAPK1: [2] Type 2 Diabetes| edema | rosiglitazone; thyroid cancer;

(28) NFKB1: [6] Stomach Neoplasms; Type 2 Diabetes| edema | rosiglitazone; Hepatopulmonary Syndrome|Liver Cirrhosis; Bone Mineral Density; diabetes, type 1; Obesity|POF - Premature ovarian failure|POLYCYSTIC OVARIAN SYNDROME|Polycystic Ovary Syndrome|Primary Ovarian Insufficiency|Puberty, Delayed|Puberty, Precocious|Thrombophilia|Tobacco Use Disorder;

(29) SMAD2: [8] Hepatopulmonary Syndrome|Liver Cirrhosis; Cleft Lip|Cleft Palate; Hypertension, Pulmonary; Bone Mineral Density; Pancreatic Neoplasms; colorectal cancer; Tourette syndrome; bone density; pregnancy loss, recurrent; cleft lip without cleft palate; juvenile polyposis; cleft palate; Obesity|POF - Premature ovarian failure|POLYCYSTIC OVARIAN SYNDROME|Polycystic Ovary Syndrome|Primary Ovarian Insufficiency|Puberty, Delayed|Puberty, Precocious|Thrombophilia|Tobacco Use Disorder; bone density;

(30) NBN: [1] Cleft Lip|Cleft Palate;

(32) IKBKB: [2] Bone Mineral Density; thyroid cancer;

(33) NCOA3: [2] Type 2 Diabetes| edema | rosiglitazone; Bone Mineral Density;

(35) PRK CZ: [1] Type 2 Diabetes| edema | rosiglitazone;

(36) CDK6: [3] Type 2 Diabetes| edema | rosiglitazone; Bone Mineral Density; diabetes, type 1;

(37) RXRA: [2] Type 2 Diabetes| edema | rosiglitazone; Bone Mineral Density;

(38) ADRBK1: [1] Type 2 Diabetes| edema | rosiglitazone;

(40) THBS1: [2] Type 2 Diabetes| edema | rosiglitazone; Hepatopulmonary Syndrome|Liver Cirrhosis;

(43) GSK3B: [2] Type 2 Diabetes| edema | rosiglitazone; Bone Mineral Density;

(44) AHR: [1] Cleft Lip|Cleft Palate;

(45) MAPK3: [1] Bone Mineral Density;

(48) CD28: [1] diabetes, type 1;

(52) STAT2: [2] Type 2 Diabetes| edema | rosiglitazone; thyroid cancer;

(55) TRAF6: [2] Type 2 Diabetes| edema | rosiglitazone; Bone Mineral Density;

(56) CDX2: [1] bone density;

(61) CDKN1A: [3] Type 2 Diabetes| edema | rosiglitazone; Bone Mineral Density; Pancreatic Neoplasms;

(62) MYOD1: [1] Bone Mineral Density;

(63) PAG1: [1] Type 2 Diabetes| edema | rosiglitazone;

(65) RFC1: [2] Type 2 Diabetes| edema | rosiglitazone; Cleft Lip|Cleft Palate;

(66) FANCG: [1] Type 2 Diabetes| edema | rosiglitazone;

35. PRKCZ:

- (2) PIK3R1: [2] Type 2 Diabetes| edema | rosiglitazone; diabetes, type 2;
- (4) PLCG1: [1] Type 2 Diabetes| edema | rosiglitazone;
- (5) GRB2: [1] Type 2 Diabetes| edema | rosiglitazone;
- (6) SMAD3: [2] Body Height; diabetes, type 2;
- (8) JUN: [1] Type 2 Diabetes| edema | rosiglitazone;
- (12) SHC1: [1] diabetes, type 2;
- (13) HSP90AA1: [1] Type 2 Diabetes| edema | rosiglitazone;
- (14) NCOA2: [1] Type 2 Diabetes| edema | rosiglitazone;
- (20) PTK2B: [1] Type 2 Diabetes| edema | rosiglitazone;
- (21) CASP3: [1] Type 2 Diabetes| edema | rosiglitazone;
- (22) RELA: [1] Type 2 Diabetes| edema | rosiglitazone;
- (23) PRKCD: [2] Type 2 Diabetes| edema | rosiglitazone; Type 2 diabetes;
- (24) MDM4: [1] Type 2 Diabetes| edema | rosiglitazone;
- (25) HIF1A: [2] Type 2 Diabetes| edema | rosiglitazone; diabetes, type 2;
- (26) FYN: [1] Type 2 Diabetes| edema | rosiglitazone;
- (27) MAPK1: [1] Type 2 Diabetes| edema | rosiglitazone;
- (28) NFKB1: [3] Body Height; Type 2 Diabetes| edema | rosiglitazone; Type 2 diabetes;
- (32) IKBKB: [1] diabetes, type 2;
- (33) NCOA3: [1] Type 2 Diabetes| edema | rosiglitazone;
- (34) SMAD4: [1] Type 2 Diabetes| edema | rosiglitazone;
- (36) CDK6: [2] Body Height; Type 2 Diabetes| edema | rosiglitazone;
- (37) RXRA: [1] Type 2 Diabetes| edema | rosiglitazone;
- (38) ADRBK1: [1] Type 2 Diabetes| edema | rosiglitazone;
- (40) THBS1: [1] Type 2 Diabetes| edema | rosiglitazone;
- (43) GSK3B: [1] Type 2 Diabetes| edema | rosiglitazone;
- (52) STAT2: [1] Type 2 Diabetes| edema | rosiglitazone;
- (55) TRAF6: [1] Type 2 Diabetes| edema | rosiglitazone;
- (61) CDKN1A: [1] Type 2 Diabetes| edema | rosiglitazone;
- (63) PAG1: [1] Type 2 Diabetes| edema | rosiglitazone;
- (65) RFC1: [1] Type 2 Diabetes| edema | rosiglitazone;
- (66) FANCG: [1] Type 2 Diabetes| edema | rosiglitazone;

36. CDK6:

- (1) STAT5A: [1] breast cancer;
- (2) PIK3R1: [1] Type 2 Diabetes| edema | rosiglitazone;
- (3) PTPN6: [1] rheumatoid arthritis;
- (4) PLCG1: [2] Type 2 Diabetes| edema | rosiglitazone; Chronic renal failure|Kidney Failure, Chronic;
- (5) GRB2: [1] Type 2 Diabetes| edema | rosiglitazone;
- (6) SMAD3: [4] Body Height; Bone Mineral Density; diabetes, type 1; breast cancer;
- (8) JUN: [4] Type 2 Diabetes| edema | rosiglitazone; ovarian cancer; breast cancer; Chronic renal failure|Kidney Failure, Chronic;
- (12) SHC1: [1] breast cancer;
- (13) HSP90AA1: [2] Type 2 Diabetes| edema | rosiglitazone; breast cancer;
- (14) NCOA2: [3] Type 2 Diabetes| edema | rosiglitazone; Bone Mineral Density; breast cancer;
- (15) KAT2B: [1] ovarian cancer;
- (16) DAXX: [1] diabetes, type 1;
- (17) CEBPB: [1] Bone Mineral Density;
- (19) MED1: [1] breast cancer;
- (20) PTK2B: [2] Type 2 Diabetes| edema | rosiglitazone; Chronic renal failure|Kidney Failure, Chronic;
- (21) CASP3: [6] Type 2 Diabetes| edema | rosiglitazone; Bone Mineral Density; esophageal adenocarcinoma; Leukemia, Lymphocytic, Chronic, B-Cell; bladder cancer; Chronic renal failure|Kidney Failure, Chronic;
- (22) RELA: [3] Type 2 Diabetes| edema | rosiglitazone; Arthritis, Rheumatoid; breast cancer;
- (23) PRKCD: [1] Type 2 Diabetes| edema | rosiglitazone;
- (24) MDM4: [3] Type 2 Diabetes| edema | rosiglitazone; ovarian cancer; breast cancer;
- (25) HIF1A: [5] Type 2 Diabetes| edema | rosiglitazone; esophageal adenocarcinoma; ovarian cancer; breast cancer; Chronic renal failure|Kidney Failure, Chronic;
- (26) FYN: [1] Type 2 Diabetes| edema | rosiglitazone;
- (27) MAPK1: [4] Type 2 Diabetes| edema | rosiglitazone; ovarian cancer; breast cancer; Chronic renal failure|Kidney Failure, Chronic;
- (28) NFKB1: [10] Body Height; Type 2 Diabetes| edema | rosiglitazone; Bone Mineral Density; esophageal adenocarcinoma; rheumatoid arthritis; bladder cancer; diabetes, type 1; Arthritis, Rheumatoid; breast cancer; Chronic renal failure|Kidney Failure, Chronic;
- (29) SMAD2: [2] Bone Mineral Density; esophageal adenocarcinoma;
- (30) NBN: [7] Mouth Neoplasms|Precancerous Conditions; esophageal adenocarcinoma; Leukemia, Lymphocytic, Chronic, B-Cell;

bladder cancer; ovarian cancer; breast cancer; Chronic renal failure|Kidney Failure, Chronic;

(31) UBE2I: [1] breast cancer;

(32) IKBKB: [2] Bone Mineral Density; Arthritis, Rheumatoid|;

(33) NCOA3: [5] Type 2 Diabetes| edema | rosiglitazone; Bone Mineral Density; bladder cancer; ovarian cancer; breast cancer;

(34) SMAD4: [3] Type 2 Diabetes| edema | rosiglitazone; Bone Mineral Density; diabetes, type 1;

(35) PRKCZ: [2] Body Height; Type 2 Diabetes| edema | rosiglitazone;

(37) RXRA: [4] Type 2 Diabetes| edema | rosiglitazone; Bone Mineral Density; bladder cancer; Chronic renal failure|Kidney Failure, Chronic;

(38) ADRBK1: [1] Type 2 Diabetes| edema | rosiglitazone;

(40) THBS1: [3] Type 2 Diabetes| edema | rosiglitazone; esophageal adenocarcinoma; Chronic renal failure|Kidney Failure, Chronic;

(41) RAD51: [6] head and neck cancer; esophageal adenocarcinoma; Leukemia, Lymphocytic, Chronic, B-Cell; bladder cancer; ovarian cancer; breast cancer;

(43) GSK3B: [5] Type 2 Diabetes| edema | rosiglitazone; Bone Mineral Density; esophageal adenocarcinoma; bladder cancer; breast cancer;

(44) AHR: [4] esophageal adenocarcinoma; bladder cancer; breast cancer; Chronic renal failure|Kidney Failure, Chronic;

(45) MAPK3: [1] Bone Mineral Density;

(46) MDC1: [1] Leukemia, Lymphocytic, Chronic, B-Cell;

(47) CD2: [1] Arthritis, Rheumatoid|;

(48) CD28: [5] Leukemia, Lymphocytic, Chronic, B-Cell; Arthritis, Rheumatoid|Rheumatoid Arthritis; diabetes, type 1; Arthritis, Rheumatoid|; Chronic renal failure|Kidney Failure, Chronic;

(49) LYN: [2] Height; height;

(52) STAT2: [1] Type 2 Diabetes| edema | rosiglitazone;

(55) TRAF6: [4] Type 2 Diabetes| edema | rosiglitazone; Bone Mineral Density; Arthritis, Rheumatoid|Rheumatoid Arthritis; Arthritis, Rheumatoid|;

(59) MNAT1: [1] head and neck cancer;

(60) PRKDC: [4] head and neck cancer; Leukemia, Lymphocytic, Chronic, B-Cell; bladder cancer; breast cancer;

(61) CDKN1A: [9] head and neck cancer; Mouth Neoplasms|Precancerous Conditions; Type 2 Diabetes| edema | rosiglitazone; Bone Mineral Density; esophageal adenocarcinoma; bladder cancer; ovarian cancer; breast cancer; Chronic renal failure|Kidney Failure, Chronic;

(62) MYOD1: [1] Bone Mineral Density;

(63) PAG1: [1] Type 2 Diabetes| edema | rosiglitazone;

(65) RFC1: [7] Type 2 Diabetes| edema | rosiglitazone; Arthritis, Rheumatoid; rheumatoid arthritis; bladder cancer; Arthritis, Rheumatoid|Rheumatoid Arthritis; breast cancer; Arthritis, Rheumatoid|;

(66) FANCG: [3] Type 2 Diabetes| edema | rosiglitazone; bladder cancer; breast cancer;

37. RXRA:

(1) STAT5A: [1] plasma HDL cholesterol (HDL-C) levels;

(2) PIK3R1: [6] prostate cancer; Tobacco Use Disorder; Type 2 Diabetes| edema | rosiglitazone; Hypercholesterolemia|LDLC levels; plasma HDL cholesterol (HDL-C) levels; Body Weight;

(3) PTPN6: [1] Alzheimer`s disease;

(4) PLCG1: [2] Type 2 Diabetes| edema | rosiglitazone; Chronic renal failure|Kidney Failure, Chronic;

(5) GRB2: [4] Tobacco Use Disorder; Type 2 Diabetes| edema | rosiglitazone; Alzheimer`s disease; plasma HDL cholesterol (HDL-C) levels;

(6) SMAD3: [7] prostate cancer; Tobacco Use Disorder; Alzheimer`s disease; Bone Mineral Density; Coronary Artery Disease; Head and Neck Neoplasms|Neoplasm Recurrence, Local|Neoplasms, Second Primary; Coronary Disease;

(8) JUN: [3] Type 2 Diabetes| edema | rosiglitazone; Heart Failure; Chronic renal failure|Kidney Failure, Chronic;

(9) SP1: [2] Head and Neck Neoplasms|Neoplasm Recurrence, Local|Neoplasms, Second Primary; plasma HDL cholesterol (HDL-C) levels;

(11) FHL2: [1] Body Weight;

(12) SHC1: [2] Tobacco Use Disorder; plasma HDL cholesterol (HDL-C) levels;

(13) HSP90AA1: [1] Type 2 Diabetes| edema | rosiglitazone;

(14) NCOA2: [5] prostate cancer; Tobacco Use Disorder; Type 2 Diabetes| edema | rosiglitazone; Bone Mineral Density; plasma HDL cholesterol (HDL-C) levels;

(17) CEBPB: [2] Bone Mineral Density; plasma HDL cholesterol (HDL-C) levels;

(18) HDAC1: [1] Tobacco Use Disorder;

(19) MED1: [2] prostate cancer; plasma HDL cholesterol (HDL-C) levels;

(20) PTK2B: [3] Tobacco Use Disorder; Type 2 Diabetes| edema | rosiglitazone; Chronic renal failure|Kidney Failure, Chronic;

(21) CASP3: [7] chronic obstructive pulmonary disease; Type 2 Diabetes| edema | rosiglitazone; colorectal cancer; Bone Mineral Density; bladder cancer; lung cancer; Chronic renal failure|Kidney Failure, Chronic;

(22) RELA: [3] normal variation; Type 2 Diabetes| edema | rosiglitazone; plasma HDL cholesterol (HDL-C) levels;

(23) PRKCD: [2] Tobacco Use Disorder; Type 2 Diabetes| edema | rosiglitazone;

(24) MDM4: [4] prostate cancer; Tobacco Use Disorder; Type 2 Diabetes| edema | rosiglitazone; Head and Neck Neoplasms|Neoplasm Recurrence, Local|Neoplasms, Second Primary;

(25) HIF1A: [7] prostate cancer; Carcinoma, Renal Cell|Kidney Neoplasms; Type 2 Diabetes| edema | rosiglitazone; colorectal

cancer; Hypercholesterolemia|LDLC levels; lung cancer; Chronic renal failure|Kidney Failure, Chronic;
(26) FYN: [2] Type 2 Diabetes| edema | rosiglitazone; Coronary Artery Disease;
(27) MAPK1: [2] Type 2 Diabetes| edema | rosiglitazone; Chronic renal failure|Kidney Failure, Chronic;
(28) NFKB1: [13] chronic obstructive pulmonary disease; normal variation; prostate cancer; Tobacco Use Disorder; Type 2 Diabetes| edema | rosiglitazone; colorectal cancer; Alzheimer`s disease; Bone Mineral Density; bladder cancer; lung cancer; plasma HDL cholesterol (HDL-C) levels; Body Weight; Chronic renal failure|Kidney Failure, Chronic;
(29) SMAD2: [1] Bone Mineral Density;
(30) NBN: [7] chronic obstructive pulmonary disease; prostate cancer; Tobacco Use Disorder; colorectal cancer; bladder cancer; lung cancer; Chronic renal failure|Kidney Failure, Chronic;
(31) UBE2I: [3] Alzheimer`s disease; lung cancer; plasma HDL cholesterol (HDL-C) levels;
(32) IKBKB: [2] colorectal cancer; Bone Mineral Density;
(33) NCOA3: [7] chronic obstructive pulmonary disease; prostate cancer; Type 2 Diabetes| edema | rosiglitazone; Bone Mineral Density; bladder cancer; lung cancer; plasma HDL cholesterol (HDL-C) levels;
(34) SMAD4: [2] Type 2 Diabetes| edema | rosiglitazone; Bone Mineral Density;
(35) PRKCZ: [1] Type 2 Diabetes| edema | rosiglitazone;
(36) CDK6: [4]Type 2 Diabetes| edema | rosiglitazone; Bone Mineral Density; bladder cancer; Chronic renal failure|Kidney Failure, Chronic;
(38) ADRBK1: [2] Type 2 Diabetes| edema | rosiglitazone; Heart Failure;
(39) NCOA6: [3] Tobacco Use Disorder; lung cancer; plasma HDL cholesterol (HDL-C) levels;
(40) THBS1: [4] prostate cancer; Type 2 Diabetes| edema | rosiglitazone; colorectal cancer; Chronic renal failure|Kidney Failure, Chronic;
(41) RAD51: [5] chronic obstructive pulmonary disease; prostate cancer; colorectal cancer; bladder cancer; lung cancer;
(43) GSK3B: [8] chronic obstructive pulmonary disease; Type 2 Diabetes| edema | rosiglitazone; Alzheimer`s disease; Bone Mineral Density; bladder cancer; Hypercholesterolemia|LDLC levels; lung cancer; plasma HDL cholesterol (HDL-C) levels;
(44) AHR: [6] chronic obstructive pulmonary disease; colorectal cancer; Alzheimer`s disease; bladder cancer; lung cancer; Chronic renal failure|Kidney Failure, Chronic;
(45) MAPK3: [2] Bone Mineral Density; plasma HDL cholesterol (HDL-C) levels;
(48) CD28: [2] colorectal cancer; Chronic renal failure|Kidney Failure, Chronic;
(49) LYN: [2] Tobacco Use Disorder; Body Weight;
(51) HIPK2: [1] Tobacco Use Disorder;
(52) STAT2: [2] Type 2 Diabetes| edema | rosiglitazone; psoriasis;
(55) TRAF6: [3] Type 2 Diabetes| edema | rosiglitazone; Alzheimer`s disease; Bone Mineral Density;
(56) CDX2: [1]colorectal cancer;
(58) PXN: [1] lung cancer;
(59) MNAT1: [2] Tobacco Use Disorder; lung cancer;
(60) PRKDC: [5] prostate cancer; Tobacco Use Disorder; bladder cancer; lung cancer; Body Weight;
(61) CDKN1A: [7] prostate cancer; Type 2 Diabetes| edema | rosiglitazone; colorectal cancer; Bone Mineral Density; bladder cancer; lung cancer; Chronic renal failure|Kidney Failure, Chronic;
(62) MYOD1: [1] Bone Mineral Density;
(63) PAG1: [2] Tobacco Use Disorder; Type 2 Diabetes| edema | rosiglitazone;
(64) APH1A: [2] Tobacco Use Disorder; Alzheimer`s disease;
(65) RFC1: [6] prostate cancer; Type 2 Diabetes| edema | rosiglitazone; colorectal cancer; Alzheimer`s disease; bladder cancer; lung cancer;
(66) FANCG: [5] prostate cancer; Type 2 Diabetes| edema | rosiglitazone; colorectal cancer; bladder cancer; lung cancer;

38. ADRBK1:
(2) PIK3R1: [1] Type 2 Diabetes| edema | rosiglitazone;
(4) PLCG1: [1]Type 2 Diabetes| edema | rosiglitazone;
(5) GRB2: [2] Type 2 Diabetes| edema | rosiglitazone; Bulimia;
(8) JUN: [2] Type 2 Diabetes| edema | rosiglitazone; Heart Failure;
(13) HSP90AA1: [1]Type 2 Diabetes| edema | rosiglitazone;
(14) NCOA2: [1] Type 2 Diabetes| edema | rosiglitazone;
(20) PTK2B: [1] Type 2 Diabetes| edema | rosiglitazone;
(21) CASP3: [1] Type 2 Diabetes| edema | rosiglitazone;
(22) RELA: [1]Type 2 Diabetes| edema | rosiglitazone;
(23) PRKCD: [1] Type 2 Diabetes| edema | rosiglitazone;
(24) MDM4: [1] Type 2 Diabetes| edema | rosiglitazone;
(25) HIF1A: [1] Type 2 Diabetes| edema | rosiglitazone;
(26) FYN: [1] Type 2 Diabetes| edema | rosiglitazone;
(27) MAPK1: [2] Type 2 Diabetes| edema | rosiglitazone; Bulimia;
(28) NFKB1: [1] Type 2 Diabetes| edema | rosiglitazone;
(33) NCOA3: [1] Type 2 Diabetes| edema | rosiglitazone;
(34) SMAD4: [1] Type 2 Diabetes| edema | rosiglitazone;
(35) PRKCZ: [1] Type 2 Diabetes| edema | rosiglitazone;
(36) CDK6: [1]Type 2 Diabetes| edema | rosiglitazone;

- (37) RXRA: [2] Type 2 Diabetes| edema | rosiglitazone; Heart Failure;
(40) THBS1: [1] Type 2 Diabetes| edema | rosiglitazone;
(43) GSK3B: [2] Type 2 Diabetes| edema | rosiglitazone; Bulimia;
(52) STAT2: [1] Type 2 Diabetes| edema | rosiglitazone;
(55) TRAF6: [1] Type 2 Diabetes| edema | rosiglitazone;
(61) CDKN1A: [1] Type 2 Diabetes| edema | rosiglitazone;
(63) PAG1: [1] Type 2 Diabetes| edema | rosiglitazone;
(65) RFC1: [1] Type 2 Diabetes| edema | rosiglitazone;
(66) FANCG: [1] Type 2 Diabetes| edema | rosiglitazone;
39. NCOA6:
(1) STAT5A: [1] plasma HDL cholesterol (HDL-C) levels;
(2) PIK3R1: [2] Tobacco Use Disorder; plasma HDL cholesterol (HDL-C) levels;
(5) GRB2: [2] Tobacco Use Disorder; plasma HDL cholesterol (HDL-C) levels;
(6) SMAD3: [1] Tobacco Use Disorder;
(9) SP1: [1] plasma HDL cholesterol (HDL-C) levels;
(12) SHC1: [2] Tobacco Use Disorder; plasma HDL cholesterol (HDL-C) levels;
(14) NCOA2: [2] Tobacco Use Disorder; plasma HDL cholesterol (HDL-C) levels;
(17) CEBPB: [1] plasma HDL cholesterol (HDL-C) levels;
(18) HDAC1: [1] Tobacco Use Disorder;
(19) MED1: [1] plasma HDL cholesterol (HDL-C) levels;
(20) PTK2B: [1] Tobacco Use Disorder;
(21) CASP3: [1] lung cancer;
(22) RELA: [1] plasma HDL cholesterol (HDL-C) levels;
(23) PRKCD: [1] Tobacco Use Disorder;
(24) MDM4: [1] Tobacco Use Disorder;
(25) HIF1A: [1] lung cancer;
(28) NFKB1: [3] Tobacco Use Disorder; lung cancer; plasma HDL cholesterol (HDL-C) levels;
(30) NBN: [2] Tobacco Use Disorder; lung cancer;
(31) UBE2I: [2] lung cancer; plasma HDL cholesterol (HDL-C) levels;
(33) NCOA3: [2] lung cancer; plasma HDL cholesterol (HDL-C) levels;
(37) RXRA: [3] Tobacco Use Disorder; lung cancer; plasma HDL cholesterol (HDL-C) levels;
(41) RAD51: [1] lung cancer;
(43) GSK3B: [2] lung cancer; plasma HDL cholesterol (HDL-C) levels;
(44) AHR: [1] lung cancer;
(45) MAPK3: [1] plasma HDL cholesterol (HDL-C) levels;
(49) LYN: [1] Tobacco Use Disorder;
(51) HIPK2: [1] Tobacco Use Disorder;
(58) PXN: [1] lung cancer;
(59) MNAT1: [2] Tobacco Use Disorder; lung cancer;
(60) PRKDC: [2] Tobacco Use Disorder; lung cancer;
(61) CDKN1A: [1] lung cancer;
(63) PAG1: [1] Tobacco Use Disorder;
(64) APH1A: [1] Tobacco Use Disorder;
(65) RFC1: [1] lung cancer;
(66) FANCG: [1] lung cancer;
40. THBS1:
(2) PIK3R1: [2] prostate cancer; Type 2 Diabetes| edema | rosiglitazone;
(4) PLCG1: [2] Type 2 Diabetes| edema | rosiglitazone; Chronic renal failure|Kidney Failure, Chronic;
(5) GRB2: [1] Type 2 Diabetes| edema | rosiglitazone;
(6) SMAD3: [2] prostate cancer; Hepatopulmonary Syndrome|Liver Cirrhosis;
(8) JUN: [2] Type 2 Diabetes| edema | rosiglitazone; Chronic renal failure|Kidney Failure, Chronic;
(13) HSP90AA1: [1] Type 2 Diabetes| edema | rosiglitazone;
(14) NCOA2: [2] prostate cancer; Type 2 Diabetes| edema | rosiglitazone;
(19) MED1: [1] prostate cancer;
(20) PTK2B: [2] Type 2 Diabetes| edema | rosiglitazone; Chronic renal failure|Kidney Failure, Chronic;
(21) CASP3: [4] Type 2 Diabetes| edema | rosiglitazone; colorectal cancer; esophageal adenocarcinoma; Chronic renal failure|Kidney Failure, Chronic;
(22) RELA: [2] Type 2 Diabetes| edema | rosiglitazone; Hepatopulmonary Syndrome|Liver Cirrhosis;
(23) PRKCD: [1] Type 2 Diabetes| edema | rosiglitazone;
(24) MDM4: [2] prostate cancer; Type 2 Diabetes| edema | rosiglitazone;
(25) HIF1A: [6] prostate cancer; Type 2 Diabetes| edema | rosiglitazone; colorectal cancer; Hepatopulmonary Syndrome|Liver Cirrhosis; esophageal adenocarcinoma; Chronic renal failure|Kidney Failure, Chronic;
(26) FYN: [1] Type 2 Diabetes| edema | rosiglitazone;
(27) MAPK1: [2] Type 2 Diabetes| edema | rosiglitazone; Chronic renal failure|Kidney Failure, Chronic;

(28) NFKB1: [9] prostate cancer; Type 2 Diabetes| edema | rosiglitazone; colorectal cancer; Hepatopulmonary Syndrome|Liver Cirrhosis; atherosclerosis; esophageal adenocarcinoma; Chorioamnionitis|Fetal Membranes, Premature Rupture|Infection of amniotic sac and membranes|Obstetric Labor, Premature|Pre-Eclampsia|Premature Birth; Chronic renal failure|Kidney Failure, Chronic; Chorioamnionitis|Fetal Membranes, Premature Rupture|Infection of amniotic sac and membranes;

(29) SMAD2: [2] Hepatopulmonary Syndrome|Liver Cirrhosis; esophageal adenocarcinoma;

(30) NBN: [4] prostate cancer; colorectal cancer; esophageal adenocarcinoma; Chronic renal failure|Kidney Failure, Chronic;

(32) IKBKB: [1] colorectal cancer;

(33) NCOA3: [2] prostate cancer; Type 2 Diabetes| edema | rosiglitazone;

(34) SMAD4: [2] Type 2 Diabetes| edema | rosiglitazone; Hepatopulmonary Syndrome|Liver Cirrhosis;

(35) PRKCZ: [1] Type 2 Diabetes| edema | rosiglitazone;

(36) CDK6: [3] Type 2 Diabetes| edema | rosiglitazone; esophageal adenocarcinoma; Chronic renal failure|Kidney Failure, Chronic;

(37) RXRA: [4] prostate cancer; Type 2 Diabetes| edema | rosiglitazone; colorectal cancer; Chronic renal failure|Kidney Failure, Chronic;

(38) ADRBK1: [1] Type 2 Diabetes| edema | rosiglitazone;

(41) RAD51: [3] prostate cancer; colorectal cancer; esophageal adenocarcinoma;

(43) GSK3B: [2] Type 2 Diabetes| edema | rosiglitazone; esophageal adenocarcinoma;

(44) AHR: [4] colorectal cancer; esophageal adenocarcinoma; Chronic renal failure|Kidney Failure, Chronic; Myocardial Infarction;

(48) CD28: [2] colorectal cancer; Chronic renal failure|Kidney Failure, Chronic;

(52) STAT2: [1] Type 2 Diabetes| edema | rosiglitazone;

(55) TRAF6: [1] Type 2 Diabetes| edema | rosiglitazone;

(56) CDX2: [1] colorectal cancer;

(60) PRKDC: [1] prostate cancer;

(61) CDKN1A: [5] prostate cancer; Type 2 Diabetes| edema | rosiglitazone; colorectal cancer; esophageal adenocarcinoma; Chronic renal failure|Kidney Failure, Chronic;

(63) PAG1: [1] Type 2 Diabetes| edema | rosiglitazone;

(65) RFC1: [3] prostate cancer; Type 2 Diabetes| edema | rosiglitazone; colorectal cancer;

(66) FANCG: [3] prostate cancer; Type 2 Diabetes| edema | rosiglitazone; colorectal cancer;

41. RAD51:

(1) STAT5A: [1] breast cancer;

(2) PIK3R1: [2] Neoplasms; prostate cancer;

(4) PLCG1: [1] multiple sclerosis;

(6) SMAD3: [3] prostate cancer; epithelial ovarian cancer; breast cancer;

(8) JUN: [2] ovarian cancer; breast cancer;

(12) SHC1: [1] breast cancer;

(13) HSP90AA1: [1] breast cancer;

(14) NCOA2: [2] prostate cancer; breast cancer;

(15) KAT2B: [1] ovarian cancer;

(18) HDAC1: [1] epithelial ovarian cancer;

(19) MED1: [2] prostate cancer; breast cancer;

(21) CASP3: [10] chronic obstructive pulmonary disease; Hodgkin Disease|Leukemia, Lymphocytic, Chronic, B-Cell|Lymphoproliferative Disorders|Waldenstrom Macroglobulinemia; colorectal cancer; benzene haematotoxicity; esophageal adenocarcinoma; Leukemia, Lymphocytic, Chronic, B-Cell; bladder cancer; lung cancer; Lymphoma, Non-Hodgkin|Lymphoma, Non-Hodgkin`s; multiple sclerosis;

(22) RELA: [3] Hodgkin Disease|Leukemia, Lymphocytic, Chronic, B-Cell|Lymphoproliferative Disorders|Waldenstrom Macroglobulinemia; benzene haematotoxicity; breast cancer;

(24) MDM4: [4] Neoplasms; prostate cancer; ovarian cancer; breast cancer;

(25) HIF1A: [6] prostate cancer; colorectal cancer; esophageal adenocarcinoma; lung cancer; ovarian cancer; breast cancer;

(27) MAPK1: [2] ovarian cancer; breast cancer;

(28) NFKB1: [10] Neoplasms; chronic obstructive pulmonary disease; prostate cancer; Hodgkin Disease|Leukemia, Lymphocytic, Chronic, B-Cell|Lymphoproliferative Disorders|Waldenstrom Macroglobulinemia; colorectal cancer; benzene haematotoxicity; esophageal adenocarcinoma; bladder cancer; lung cancer; breast cancer;

(29) SMAD2: [1] esophageal adenocarcinoma;

(30) NBN: [24] Brain Neoplasms|Glioma; Neoplasms; chronic obstructive pulmonary disease; prostate cancer; leukemia; Hodgkin Disease|Leukemia, Lymphocytic, Chronic, B-Cell|Lymphoproliferative Disorders|Waldenstrom Macroglobulinemia; Colorectal Neoplasms; colorectal cancer; benzene haematotoxicity; Adenocarcinoma|Pancreatic Neoplasms; stomach cancer; esophageal adenocarcinoma; epithelial ovarian cancer; Leukemia, Lymphocytic, Chronic, B-Cell; Brain Neoplasms|Glioma|Meningeal Neoplasms|meningioma|Neuroma, Acoustic|Neuromas, Acoustic; bladder cancer; lung cancer; Thyroid Neoplasms; cytogenetic studies; ovarian cancer; breast cancer; Chromosome Aberrations|Chromosome abnormality; Lymphoma, Non-Hodgkin|Lymphoma, Non-Hodgkin`s; multiple sclerosis;

(31) UBE2I: [2] lung cancer; breast cancer;

(32) IKBKB: [3] Hodgkin Disease|Leukemia, Lymphocytic, Chronic, B-Cell|Lymphoproliferative Disorders|Waldenstrom Macroglobulinemia; colorectal cancer; benzene haematotoxicity;

(33) NCOA3: [7] chronic obstructive pulmonary disease; prostate cancer; epithelial ovarian cancer; bladder cancer; lung cancer;

ovarian cancer; breast cancer;

(36) CDK6: [6] head and neck cancer; esophageal adenocarcinoma; Leukemia, Lymphocytic, Chronic, B-Cell; bladder cancer; ovarian cancer; breast cancer;

(37) RXRA: [5] chronic obstructive pulmonary disease; prostate cancer; colorectal cancer; bladder cancer; lung cancer;

(39) NCOA6: [1] lung cancer;

(40) THBS1: [3] prostate cancer; colorectal cancer; esophageal adenocarcinoma;

(43) GSK3B: [6] chronic obstructive pulmonary disease; stomach cancer; esophageal adenocarcinoma; bladder cancer; lung cancer; breast cancer;

(44) AHR: [7] chronic obstructive pulmonary disease; Colorectal Neoplasms; colorectal cancer; esophageal adenocarcinoma; bladder cancer; lung cancer; breast cancer;

(46) MDC1: [2] Adenocarcinoma|Pancreatic Neoplasms; Leukemia, Lymphocytic, Chronic, B-Cell;

(48) CD28: [5] Hodgkin Disease|Leukemia, Lymphocytic, Chronic, B-Cell|Lymphoproliferative Disorders|Waldenstrom Macroglobulinemia; colorectal cancer; benzene haematotoxicity; Leukemia, Lymphocytic, Chronic, B-Cell; multiple sclerosis;

(55) TRAF6: [3] Hodgkin Disease|Leukemia, Lymphocytic, Chronic, B-Cell|Lymphoproliferative Disorders|Waldenstrom Macroglobulinemia; benzene haematotoxicity; Lymphoma, Non-Hodgkin|Lymphoma, Non-Hodgkin`s;

(56) CDX2: [1] colorectal cancer;

(58) PXN: [1] lung cancer;

(59) MNAT1: [3] head and neck cancer; lung cancer; multiple sclerosis;

(60) PRKDC: [13] Brain Neoplasms|Glioma; head and neck cancer; prostate cancer; Hodgkin Disease|Leukemia, Lymphocytic, Chronic, B-Cell|Lymphoproliferative Disorders|Waldenstrom Macroglobulinemia; brain cancer; benzene haematotoxicity; Carcinoma, Papillary|Thyroid Neoplasms; Leukemia, Lymphocytic, Chronic, B-Cell; bladder cancer; lung cancer; breast cancer; Lymphoma, Non-Hodgkin|Lymphoma, Non-Hodgkin`s; multiple sclerosis;

(61) CDKN1A: [13] head and neck cancer; prostate cancer; leukemia; Colorectal Neoplasms; colorectal cancer; Adenocarcinoma|Pancreatic Neoplasms; stomach cancer; esophageal adenocarcinoma; epithelial ovarian cancer; bladder cancer; lung cancer; ovarian cancer; breast cancer;

(65) RFC1: [6] prostate cancer; colorectal cancer; bladder cancer; lung cancer; breast cancer; multiple sclerosis;

(66) FANCG: [8] prostate cancer; Colorectal Neoplasms; colorectal cancer; Adenocarcinoma|Pancreatic Neoplasms; epithelial ovarian cancer; bladder cancer; lung cancer; breast cancer;

42. YWHAB:

(3) PTPN6: [1] systemic lupus erythematosus;

(17) CEBPB: [1] systemic lupus erythematosus;

(21) CASP3: [1] Autism;

(45) MAPK3: [1] Autism;

43. GSK3B:

(1) STAT5A: [2] plasma HDL cholesterol (HDL-C) levels; breast cancer;

(2) PIK3R1: [6] Alzheimer`s Disease; Type 2 Diabetes| edema | rosiglitazone; BMI- Edema rosiglitazone or pioglitazone; Hypercholesterolemia|LDLC levels; plasma HDL cholesterol (HDL-C) levels; Polycystic Ovary Syndrome;

(3) PTPN6: [1] Alzheimer`s disease;

(4) PLCG1: [2] Type 2 Diabetes| edema | rosiglitazone; bipolar disorder;

(5) GRB2: [4] Type 2 Diabetes| edema | rosiglitazone; Alzheimer`s disease; plasma HDL cholesterol (HDL-C) levels; Bulimia;

(6) SMAD3: [3] Alzheimer`s disease; Bone Mineral Density; breast cancer;

(8) JUN: [3] alcohol consumption; Type 2 Diabetes| edema | rosiglitazone; breast cancer;

(9) SP1: [1] plasma HDL cholesterol (HDL-C) levels;

(12) SHC1: [2] plasma HDL cholesterol (HDL-C) levels; breast cancer;

(13) HSP90AA1: [2] Type 2 Diabetes| edema | rosiglitazone; breast cancer;

(14) NCOA2: [4] Type 2 Diabetes| edema | rosiglitazone; Bone Mineral Density; plasma HDL cholesterol (HDL-C) levels; breast cancer;

(17) CEBPB: [2] Bone Mineral Density; plasma HDL cholesterol (HDL-C) levels;

(19) MED1: [2] plasma HDL cholesterol (HDL-C) levels; breast cancer;

(20) PTK2B: [1] Type 2 Diabetes| edema | rosiglitazone;

(21) CASP3: [6] chronic obstructive pulmonary disease; Type 2 Diabetes| edema | rosiglitazone; Bone Mineral Density; esophageal adenocarcinoma; bladder cancer; lung cancer;

(22) RELA: [3] Type 2 Diabetes| edema | rosiglitazone; plasma HDL cholesterol (HDL-C) levels; breast cancer;

(23) PRKCD: [1] Type 2 Diabetes| edema | rosiglitazone;

(24) MDM4: [2] Type 2 Diabetes| edema | rosiglitazone; breast cancer;

(25) HIF1A: [6] Type 2 Diabetes| edema | rosiglitazone; esophageal adenocarcinoma; BMI- Edema rosiglitazone or pioglitazone; Hypercholesterolemia|LDLC levels; lung cancer; breast cancer;

(26) FYN: [4] Parkinson`s disease; Alzheimer`s Disease; Type 2 Diabetes| edema | rosiglitazone; schizophrenia;

(27) MAPK1: [4] alcohol consumption; Type 2 Diabetes| edema | rosiglitazone; breast cancer; Bulimia;

(28) NFKB1: [11] chronic obstructive pulmonary disease; Parkinson`s disease; Alcoholism; Type 2 Diabetes| edema | rosiglitazone; Alzheimer`s disease; Bone Mineral Density; esophageal adenocarcinoma; bladder cancer; lung cancer; plasma HDL cholesterol (HDL-C) levels; breast cancer;

(29) SMAD2: [2] Bone Mineral Density; esophageal adenocarcinoma;

(30) NBN: [7] chronic obstructive pulmonary disease; Parkinson`s disease; stomach cancer; esophageal adenocarcinoma; bladder

cancer; lung cancer; breast cancer;

(31) UBE2I: [4] Alzheimer`s disease; lung cancer; plasma HDL cholesterol (HDL-C) levels; breast cancer;

(32) IKBKB: [1] Bone Mineral Density;

(33) NCOA3: [8] chronic obstructive pulmonary disease; Alcoholism; Type 2 Diabetes| edema | rosiglitazone; Bone Mineral Density; bladder cancer; lung cancer; plasma HDL cholesterol (HDL-C) levels; breast cancer;

(34) SMAD4: [2] Type 2 Diabetes| edema | rosiglitazone; Bone Mineral Density;

(35) PRKCZ: [1] Type 2 Diabetes| edema | rosiglitazone;

(36) CDK6: [5] Type 2 Diabetes| edema | rosiglitazone; Bone Mineral Density; esophageal adenocarcinoma; bladder cancer; breast cancer;

(37) RXRA: [8] chronic obstructive pulmonary disease; Type 2 Diabetes| edema | rosiglitazone; Alzheimer`s disease; Bone Mineral Density; bladder cancer; Hypercholesterolemia|LDLC levels; lung cancer; plasma HDL cholesterol (HDL-C) levels;

(38) ADRBK1: [2] Type 2 Diabetes| edema | rosiglitazone; Bulimia;

(39) NCOA6: [2] lung cancer; plasma HDL cholesterol (HDL-C) levels;

(40) THBS1: [2] Type 2 Diabetes| edema | rosiglitazone; esophageal adenocarcinoma;

(41) RAD51: [6] chronic obstructive pulmonary disease; stomach cancer; esophageal adenocarcinoma; bladder cancer; lung cancer; breast cancer;

(44) AHR: [6] chronic obstructive pulmonary disease; Alzheimer`s disease; esophageal adenocarcinoma; bladder cancer; lung cancer; breast cancer;

(45) MAPK3: [3] alcohol consumption; Bone Mineral Density; plasma HDL cholesterol (HDL-C) levels;

(52) STAT2: [1] Type 2 Diabetes| edema | rosiglitazone;

(55) TRAF6: [3] Type 2 Diabetes| edema | rosiglitazone; Alzheimer`s disease; Bone Mineral Density;

(58) PXN: [1] lung cancer;

(59) MNAT1: [1] lung cancer;

(60) PRKDC: [3] bladder cancer; lung cancer; breast cancer;

(61) CDKN1A: [7] Type 2 Diabetes| edema | rosiglitazone; Bone Mineral Density; stomach cancer; esophageal adenocarcinoma; bladder cancer; lung cancer; breast cancer;

(62) MYOD1: [1] Bone Mineral Density;

(63) PAG1: [1] Type 2 Diabetes| edema | rosiglitazone;

(64) APH1A: [1] Alzheimer`s disease;

(65) RFC1: [6] Alcoholism; Type 2 Diabetes| edema | rosiglitazone; Alzheimer`s disease; bladder cancer; lung cancer; breast cancer;

(66) FANCG: [4] Type 2 Diabetes| edema | rosiglitazone; bladder cancer; lung cancer; breast cancer;

44. AHR:

(1) STAT5A: [1] breast cancer;

(3) PTPN6: [1] Alzheimer`s disease;

(4) PLCG1: [1] Chronic renal failure|Kidney Failure, Chronic;

(5) GRB2: [1] Alzheimer`s disease;

(6) SMAD3: [4] Alzheimer`s disease; Cleft Lip|Cleft Palate; Heart Rate; breast cancer;

(7) PTK2: [1] Heart Rate;

(8) JUN: [2] breast cancer; Chronic renal failure|Kidney Failure, Chronic;

(12) SHC1: [1] breast cancer;

(13) HSP90AA1: [2] Cleft Lip|Cleft Palate; breast cancer;

(14) NCOA2: [1] breast cancer;

(19) MED1: [1] breast cancer;

(20) PTK2B: [1] Chronic renal failure|Kidney Failure, Chronic;

(21) CASP3: [8] chronic obstructive pulmonary disease; colorectal cancer; esophageal adenocarcinoma; Multiple Myeloma; bladder cancer; Lymphoma, Non-Hodgkin; lung cancer; Chronic renal failure|Kidney Failure, Chronic;

(22) RELA: [2] Multiple Myeloma; breast cancer;

(24) MDM4: [1] breast cancer;

(25) HIF1A: [6] colorectal cancer; Cleft Lip|Cleft Palate; esophageal adenocarcinoma; lung cancer; breast cancer; Chronic renal failure|Kidney Failure, Chronic;

(27) MAPK1: [3] Heart Rate; breast cancer; Chronic renal failure|Kidney Failure, Chronic;

(28) NFKB1: [10] chronic obstructive pulmonary disease; colorectal cancer; Alzheimer`s disease; esophageal adenocarcinoma; Multiple Myeloma; bladder cancer; Lymphoma, Non-Hodgkin; lung cancer; breast cancer; Chronic renal failure|Kidney Failure, Chronic;

(29) SMAD2: [2] Cleft Lip|Cleft Palate; esophageal adenocarcinoma;

(30) NBN: [11] chronic obstructive pulmonary disease; Colorectal Neoplasms; colorectal cancer; Cleft Lip|Cleft Palate; esophageal adenocarcinoma; lymphoma, Non-Hodgkin`s; bladder cancer; Lymphoma, Non-Hodgkin; lung cancer; breast cancer; Chronic renal failure|Kidney Failure, Chronic;

(31) UBE2I: [3] Alzheimer`s disease; lung cancer; breast cancer;

(32) IKBKB: [3] colorectal cancer; Multiple Myeloma; Lymphoma, Non-Hodgkin;

(33) NCOA3: [5] chronic obstructive pulmonary disease; bladder cancer; Lymphoma, Non-Hodgkin; lung cancer; breast cancer;

(34) SMAD4: [1] Cleft Lip|Cleft Palate;

(36) CDK6: [4] esophageal adenocarcinoma; bladder cancer; breast cancer; Chronic renal failure|Kidney Failure, Chronic;

- (37) RXRA: [6] chronic obstructive pulmonary disease; colorectal cancer; Alzheimer`s disease; bladder cancer; lung cancer; Chronic renal failure|Kidney Failure, Chronic;
- (39) NCOA6: [1] lung cancer;
- (40) THBS1: [4] colorectal cancer; esophageal adenocarcinoma; Chronic renal failure|Kidney Failure, Chronic; Myocardial Infarction;
- (41) RAD51: [7] chronic obstructive pulmonary disease; Colorectal Neoplasms; colorectal cancer; esophageal adenocarcinoma; bladder cancer; lung cancer; breast cancer;
- (43) GSK3B: [6] chronic obstructive pulmonary disease; Alzheimer`s disease; esophageal adenocarcinoma; bladder cancer; lung cancer; breast cancer;
- (48) CD28: [3] colorectal cancer; Multiple Myeloma; Chronic renal failure|Kidney Failure, Chronic;
- (55) TRAF6: [2] Alzheimer`s disease; Multiple Myeloma;
- (56) CDX2: [1] colorectal cancer;
- (57) FOXO3: [1] Cholesterol, HDL;
- (58) PXN: [1] lung cancer;
- (59) MNAT1: [1] lung cancer;
- (60) PRKDC: [3] bladder cancer; lung cancer; breast cancer;
- (61) CDKN1A: [8] Colorectal Neoplasms; colorectal cancer; lymphoma; esophageal adenocarcinoma; bladder cancer; lung cancer; breast cancer; Chronic renal failure|Kidney Failure, Chronic;
- (63) PAG1: [1] Heart Rate;
- (64) APH1A: [1] Alzheimer`s disease;
- (65) RFC1: [6] colorectal cancer; Alzheimer`s disease; Cleft Lip|Cleft Palate; bladder cancer; lung cancer; breast cancer;
- (66) FANCG: [5] Colorectal Neoplasms; colorectal cancer; bladder cancer; lung cancer; breast cancer;
45. MAPK3:
- (1) STAT5A: [1] plasma HDL cholesterol (HDL-C) levels;
- (2) PIK3R1: [1] plasma HDL cholesterol (HDL-C) levels;
- (5) GRB2: [1] plasma HDL cholesterol (HDL-C) levels;
- (6) SMAD3: [1] Bone Mineral Density;
- (8) JUN: [1] alcohol consumption;
- (9) SP1: [1] plasma HDL cholesterol (HDL-C) levels;
- (12) SHC1: [1] plasma HDL cholesterol (HDL-C) levels;
- (13) HSP90AA1: [1] bronchodilator response;
- (14) NCOA2: [3] Bone Mineral Density; plasma HDL cholesterol (HDL-C) levels; bronchodilator response;
- (17) CEBPB: [2] Bone Mineral Density; plasma HDL cholesterol (HDL-C) levels;
- (18) HDAC1: [1] bronchodilator response;
- (19) MED1: [1] plasma HDL cholesterol (HDL-C) levels;
- (21) CASP3: [2] Autism; Bone Mineral Density;
- (22) RELA: [1] plasma HDL cholesterol (HDL-C) levels;
- (27) MAPK1: [2] alcohol consumption; bronchodilator response;
- (28) NFKB1: [2] Bone Mineral Density; plasma HDL cholesterol (HDL-C) levels;
- (29) SMAD2: [1] Bone Mineral Density;
- (31) UBE2I: [1] plasma HDL cholesterol (HDL-C) levels;
- (32) IKBKB: [1] Bone Mineral Density;
- (33) NCOA3: [2] Bone Mineral Density; plasma HDL cholesterol (HDL-C) levels;
- (34) SMAD4: [1] Bone Mineral Density;
- (36) CDK6: [1] Bone Mineral Density;
- (37) RXRA: [2] Bone Mineral Density; plasma HDL cholesterol (HDL-C) levels;
- (39) NCOA6: [1] plasma HDL cholesterol (HDL-C) levels;
- (42) YWHAB: [1] Autism;
- (43) GSK3B: [3] alcohol consumption; Bone Mineral Density; plasma HDL cholesterol (HDL-C) levels;
- (55) TRAF6: [1] Bone Mineral Density;
- (61) CDKN1A: [1] Bone Mineral Density;
- (62) MYOD1: [1] Bone Mineral Density;
46. MDC1:
- (16) DAXX: [1] Lupus Erythematosus, Systemic;
- (17) CEBPB: [1] Behcet Syndrome;
- (21) CASP3: [1] Leukemia, Lymphocytic, Chronic, B-Cell;
- (28) NFKB1: [1] Abortion, Spontaneous;
- (30) NBN: [2] Adenocarcinoma|Pancreatic Neoplasms; Leukemia, Lymphocytic, Chronic, B-Cell;
- (36) CDK6: [1] Leukemia, Lymphocytic, Chronic, B-Cell;
- (41) RAD51: [2] Adenocarcinoma|Pancreatic Neoplasms; Leukemia, Lymphocytic, Chronic, B-Cell;
- (48) CD28: [1] Leukemia, Lymphocytic, Chronic, B-Cell;
- (49) LYN: [1] Lupus Erythematosus, Systemic;
- (60) PRKDC: [1] Leukemia, Lymphocytic, Chronic, B-Cell;
- (61) CDKN1A: [1] Adenocarcinoma|Pancreatic Neoplasms;

- (66) FANCG: [1] Adenocarcinoma|Pancreatic Neoplasms;
47. CD2:
- (22) RELA: [1] Arthritis, Rheumatoid|;
- (26) FYN: [1] Waist-Hip Ratio|;
- (28) NFKB1: [1] Arthritis, Rheumatoid|;
- (32) IKBKB: [1] Arthritis, Rheumatoid|;
- (36) CDK6: [1] Arthritis, Rheumatoid|;
- (48) CD28: [1] Arthritis, Rheumatoid|;
- (55) TRAF6: [1] Arthritis, Rheumatoid|;
- (65) RFC1: [1] Arthritis, Rheumatoid|;
48. CD28:
- (1) STAT5A: [6] Hepatitis C|Remission, Spontaneous; Precursor Cell Lymphoblastic Leukemia-Lymphoma; respiratory syncytial virus bronchiolitis; Bronchiolitis, Viral|Respiratory Syncytial Virus Infections; Lupus Erythematosus, Systemic|Systemic lupus erythematosus; Asthma|Bronchiolitis, Viral|Respiratory Syncytial Virus Infections|;
- (3) PTPN6: [1] Lupus Erythematosus, Systemic|Systemic lupus erythematosus|;
- (4) PLCG1: [2] Chronic renal failure|Kidney Failure, Chronic; multiple sclerosis|;
- (6) SMAD3: [2] Asthma; diabetes, type 1|;
- (8) JUN: [3] respiratory syncytial virus bronchiolitis; Bronchiolitis, Viral|Respiratory Syncytial Virus Infections; Chronic renal failure|Kidney Failure, Chronic|;
- (16) DAXX: [2] Precursor Cell Lymphoblastic Leukemia-Lymphoma; diabetes, type 1|;
- (20) PTK2B: [1] Chronic renal failure|Kidney Failure, Chronic|;
- (21) CASP3: [8] Hodgkin Disease|Leukemia, Lymphocytic, Chronic, B-Cell|Lymphoproliferative Disorders|Waldenstrom Macroglobulinemia; colorectal cancer; benzene haematotoxicity; lymphoma, non-Hodgkin; Leukemia, Lymphocytic, Chronic, B-Cell; Multiple Myeloma; Chronic renal failure|Kidney Failure, Chronic; multiple sclerosis|;
- (22) RELA: [4] Hodgkin Disease|Leukemia, Lymphocytic, Chronic, B-Cell|Lymphoproliferative Disorders|Waldenstrom Macroglobulinemia; benzene haematotoxicity; Multiple Myeloma; Arthritis, Rheumatoid|;
- (25) HIF1A: [2] colorectal cancer; Chronic renal failure|Kidney Failure, Chronic|;
- (26) FYN: [2] Asthma; Lupus Erythematosus, Systemic|Systemic lupus erythematosus|;
- (27) MAPK1: [1] Chronic renal failure|Kidney Failure, Chronic|;
- (28) NFKB1: [11] Hodgkin Disease|Leukemia, Lymphocytic, Chronic, B-Cell|Lymphoproliferative Disorders|Waldenstrom Macroglobulinemia; colorectal cancer; benzene haematotoxicity; Hepatitis C|Remission, Spontaneous; Multiple Myeloma; Precursor Cell Lymphoblastic Leukemia-Lymphoma; melanoma; celiac disease; diabetes, type 1; Arthritis, Rheumatoid|; Chronic renal failure|Kidney Failure, Chronic|;
- (30) NBN: [9] Hodgkin Disease|Leukemia, Lymphocytic, Chronic, B-Cell|Lymphoproliferative Disorders|Waldenstrom Macroglobulinemia; colorectal cancer; benzene haematotoxicity; lymphoma, non-Hodgkin; Leukemia, Lymphocytic, Chronic, B-Cell; melanoma; Chronic renal failure|Kidney Failure, Chronic; Lupus Erythematosus, Systemic|Systemic lupus erythematosus; multiple sclerosis|;
- (32) IKBKB: [9] Hodgkin Disease|Leukemia, Lymphocytic, Chronic, B-Cell|Lymphoproliferative Disorders|Waldenstrom Macroglobulinemia; colorectal cancer; benzene haematotoxicity; Hepatitis C|Remission, Spontaneous; Multiple Myeloma; respiratory syncytial virus bronchiolitis; Bronchiolitis, Viral|Respiratory Syncytial Virus Infections; Arthritis, Rheumatoid|; Asthma|Bronchiolitis, Viral|Respiratory Syncytial Virus Infections|;
- (33) NCOA3: [1] Precursor Cell Lymphoblastic Leukemia-Lymphoma|;
- (34) SMAD4: [1] diabetes, type 1|;
- (36) CDK6: [5] Leukemia, Lymphocytic, Chronic, B-Cell; Arthritis, Rheumatoid|Rheumatoid Arthritis; diabetes, type 1; Arthritis, Rheumatoid|; Chronic renal failure|Kidney Failure, Chronic|;
- (37) RXRA: [2] colorectal cancer; Chronic renal failure|Kidney Failure, Chronic|;
- (40) THBS1: [2] colorectal cancer; Chronic renal failure|Kidney Failure, Chronic|;
- (41) RAD51: [5] Hodgkin Disease|Leukemia, Lymphocytic, Chronic, B-Cell|Lymphoproliferative Disorders|Waldenstrom Macroglobulinemia; colorectal cancer; benzene haematotoxicity; Leukemia, Lymphocytic, Chronic, B-Cell; multiple sclerosis|;
- (44) AHR: [3] colorectal cancer; Multiple Myeloma; Chronic renal failure|Kidney Failure, Chronic|;
- (46) MDC1: [1] Leukemia, Lymphocytic, Chronic, B-Cell|;
- (47) CD2: [1] Arthritis, Rheumatoid|;
- (49) LYN: [1] Lupus Erythematosus, Systemic|Systemic lupus erythematosus|;
- (52) STAT2: [2] Asthma|; Hepatitis C|Remission, Spontaneous|;
- (55) TRAF6: [6] Hodgkin Disease|Leukemia, Lymphocytic, Chronic, B-Cell|Lymphoproliferative Disorders|Waldenstrom Macroglobulinemia; benzene haematotoxicity; Hepatitis C|Remission, Spontaneous; Multiple Myeloma; Arthritis, Rheumatoid|Rheumatoid Arthritis; Arthritis, Rheumatoid|;
- (56) CDX2: [1] colorectal cancer|;
- (59) MNAT1: [1] multiple sclerosis|;
- (60) PRKDC: [4] Hodgkin Disease|Leukemia, Lymphocytic, Chronic, B-Cell|Lymphoproliferative Disorders|Waldenstrom Macroglobulinemia; benzene haematotoxicity; Leukemia, Lymphocytic, Chronic, B-Cell; multiple sclerosis|;
- (61) CDKN1A: [5] colorectal cancer; melanoma; Chronic renal failure|Kidney Failure, Chronic; Lupus Erythematosus, Systemic|Systemic lupus erythematosus; cervical cancer|;
- (65) RFC1: [5] colorectal cancer; Precursor Cell Lymphoblastic Leukemia-Lymphoma; Arthritis, Rheumatoid|Rheumatoid Arthritis|;

Arthritis, Rheumatoid]; multiple sclerosis;
(66) FANCG: [1] colorectal cancer;

49. LYN:

- (1) STAT5A: [1] Lupus Erythematosus, Systemic|Systemic lupus erythematosus;
- (2) PIK3R1: [3] Tobacco Use Disorder; HIV; Body Weight;
- (3) PTPN6: [1] Lupus Erythematosus, Systemic|Systemic lupus erythematosus;
- (4) PLCG1: [2] several psychiatric disorders; HIV;
- (5) GRB2: [1] Tobacco Use Disorder;
- (6) SMAD3: [1] Tobacco Use Disorder;
- (7) PTK2: [1] HIV;
- (11) FHL2: [1] Body Weight;
- (12) SHC1: [1] Tobacco Use Disorder;
- (14) NCOA2: [1] Tobacco Use Disorder;
- (16) DAXX: [1] Lupus Erythematosus, Systemic;
- (18) HDAC1: [1] Tobacco Use Disorder;
- (20) PTK2B: [2] Tobacco Use Disorder; HIV;
- (23) PRKCD: [1] Tobacco Use Disorder;
- (24) MDM4: [1] Tobacco Use Disorder;
- (26) FYN: [2] HIV; Lupus Erythematosus, Systemic|Systemic lupus erythematosus;
- (27) MAPK1: [1] HIV;
- (28) NFKB1: [2] Tobacco Use Disorder; Body Weight;
- (30) NBN: [2] Tobacco Use Disorder; Lupus Erythematosus, Systemic|Systemic lupus erythematosus;
- (32) IKBKB: [1] HIV;
- (36) CDK6: [2] Height; height;
- (37) RXRA: [2] Tobacco Use Disorder; Body Weight;
- (39) NCOA6: [1] Tobacco Use Disorder;
- (46) MDC1: [1] Lupus Erythematosus, Systemic;
- (48) CD28: [1] Lupus Erythematosus, Systemic|Systemic lupus erythematosus;
- (51) HIPK2: [1] Tobacco Use Disorder;
- (55) TRAF6: [1] HIV;
- (59) MNAT1: [1] Tobacco Use Disorder;
- (60) PRKDC: [2] Tobacco Use Disorder; Body Weight;
- (61) CDKN1A: [1] Lupus Erythematosus, Systemic|Systemic lupus erythematosus;
- (63) PAG1: [1] Tobacco Use Disorder;
- (64) APH1A: [1] Tobacco Use Disorder;

50. FOXO4:

- (57) FOXO3: [1] body mass;

51. HIPK2:

- (2) PIK3R1: [1] Tobacco Use Disorder;
- (5) GRB2: [1] Tobacco Use Disorder;
- (6) SMAD3: [1] Tobacco Use Disorder;
- (12) SHC1: [1] Tobacco Use Disorder;
- (14) NCOA2: [1] Tobacco Use Disorder;
- (18) HDAC1: [1] Tobacco Use Disorder;
- (20) PTK2B: [1] Tobacco Use Disorder;
- (23) PRKCD: [1] Tobacco Use Disorder;
- (24) MDM4: [1] Tobacco Use Disorder;
- (28) NFKB1: [2] Tobacco Use Disorder; Diabetes Mellitus, Type 2;
- (30) NBN: [1] Tobacco Use Disorder;
- (37) RXRA: [1] Tobacco Use Disorder;
- (39) NCOA6: [1] Tobacco Use Disorder;
- (49) LYN: [1] Tobacco Use Disorder;
- (59) MNAT1: [1] Tobacco Use Disorder;
- (60) PRKDC: [1] Tobacco Use Disorder;
- (63) PAG1: [1] Tobacco Use Disorder;
- (64) APH1A: [1] Tobacco Use Disorder;

52. STAT2:

- (1) STAT5A: [3] Birth Weight|Leukemia|Leukemia, Myeloid, Acute|Precursor Cell Lymphoblastic Leukemia-Lymphoma; Hepatitis C|Remission, Spontaneous; Meningeal Neoplasms|meningioma;
- (2) PIK3R1: [1] Type 2 Diabetes| edema | rosiglitazone;
- (4) PLCG1: [1] Type 2 Diabetes| edema | rosiglitazone;
- (5) GRB2: [1] Type 2 Diabetes| edema | rosiglitazone;
- (8) JUN: [1] Type 2 Diabetes| edema | rosiglitazone;
- (13) HSP90AA1: [1] Type 2 Diabetes| edema | rosiglitazone;

- (14) NCOA2: [1] Type 2 Diabetes| edema | rosiglitazone;
(20) PTK2B: [1] Type 2 Diabetes| edema | rosiglitazone;
(21) CASP3: [1] Type 2 Diabetes| edema | rosiglitazone;
(22) RELA: [1]Type 2 Diabetes| edema | rosiglitazone;
(23) PRKCD: [1] Type 2 Diabetes| edema | rosiglitazone;
(24) MDM4: [1] Type 2 Diabetes| edema | rosiglitazone;
(25) HIF1A: [1] Type 2 Diabetes| edema | rosiglitazone;
(26) FYN: [1] Type 2 Diabetes| edema | rosiglitazone;
(27) MAPK1: [2] Type 2 Diabetes| edema | rosiglitazone; thyroid cancer;
(28) NFKB1: [7] Dengue Hemorrhagic Fever; Hepatitis C, Chronic|Liver Cirrhosis; Birth Weight|Leukemia|Leukemia, Myeloid, Acute|Precursor Cell Lymphoblastic Leukemia-Lymphoma; Type 2 Diabetes| edema | rosiglitazone; Psoriasis; Hepatitis C|Remission, Spontaneous; Meningeal Neoplasms|meningioma;
(32) IKBKB: [2] Hepatitis C|Remission, Spontaneous; thyroid cancer;
(33) NCOA3: [1] Type 2 Diabetes| edema | rosiglitazone;
(34) SMAD4: [2] Type 2 Diabetes| edema | rosiglitazone; thyroid cancer;
(35) PRK CZ: [1] Type 2 Diabetes| edema | rosiglitazone;
(36) CDK6: [1]Type 2 Diabetes| edema | rosiglitazone;
(37) RXRA: [2] Type 2 Diabetes| edema | rosiglitazone; psoriasis;
(38) ADRBK1: [1] Type 2 Diabetes| edema | rosiglitazone;
(40) THBS1: [1] Type 2 Diabetes| edema | rosiglitazone;
(43) GSK3B: [1] Type 2 Diabetes| edema | rosiglitazone;
(48) CD28: [2] Asthma; Hepatitis C|Remission, Spontaneous;
(55) TRAF6: [3] Dengue Hemorrhagic Fever; Type 2 Diabetes| edema | rosiglitazone; Hepatitis C|Remission, Spontaneous;
(61) CDKN1A: [1] Type 2 Diabetes| edema | rosiglitazone;
(63) PAG1: [1] Type 2 Diabetes| edema | rosiglitazone;
(65) RFC1: [1] Type 2 Diabetes| edema | rosiglitazone;
(66) FANCG: [1] Type 2 Diabetes| edema | rosiglitazone;
53. KAT2A:
(22) RELA: [1]HIV Infections|[X]Human immunodeficiency virus disease;
54. NR4A1:
(24) MDM4: [1] Narcolepsy;
(27) MAPK1: [1] Narcolepsy;
(55) TRAF6: [1] Narcolepsy;
55. TRAF6:
(1) STAT5A: [1] Hepatitis C|Remission, Spontaneous;
(2) PIK3R1: [2] Type 2 Diabetes| edema | rosiglitazone; HIV;
(3) PTPN6: [1] Alzheimer`s disease;
(4) PLCG1: [2]Type 2 Diabetes| edema | rosiglitazone; HIV;
(5) GRB2: [2] Type 2 Diabetes| edema | rosiglitazone; Alzheimer`s disease;
(6) SMAD3: [2] Alzheimer`s disease; Bone Mineral Density;
(7) PTK2: [1] HIV;
(8) JUN: [1] Type 2 Diabetes| edema | rosiglitazone;
(13) HSP90AA1: [1]Type 2 Diabetes| edema | rosiglitazone;
(14) NCOA2: [2] Type 2 Diabetes| edema | rosiglitazone; Bone Mineral Density;
(17) CEBPB: [1] Bone Mineral Density;
(20) PTK2B: [2] Type 2 Diabetes| edema | rosiglitazone; HIV;
(21) CASP3: [6] Hodgkin Disease|Leukemia, Lymphocytic, Chronic, B-Cell|Lymphoproliferative Disorders|Waldenstrom Macroglobulinemia; Type 2 Diabetes| edema | rosiglitazone; benzene haematotoxicity; Bone Mineral Density; Multiple Myeloma; Lymphoma, Non-Hodgkin|Lymphoma, Non-Hodgkin`s;
(22) RELA: [5]Hodgkin Disease|Leukemia, Lymphocytic, Chronic, B-Cell|Lymphoproliferative Disorders|Waldenstrom Macroglobulinemia; Type 2 Diabetes| edema | rosiglitazone; benzene haematotoxicity; Multiple Myeloma; Arthritis, Rheumatoid|;
(23) PRKCD: [1] Type 2 Diabetes| edema | rosiglitazone;
(24) MDM4: [2] Type 2 Diabetes| edema | rosiglitazone; Narcolepsy;
(25) HIF1A: [1] Type 2 Diabetes| edema | rosiglitazone;
(26) FYN: [2] Type 2 Diabetes| edema | rosiglitazone; HIV;
(27) MAPK1: [3] Type 2 Diabetes| edema | rosiglitazone; Narcolepsy; HIV;
(28) NFKB1: [10] Dengue Hemorrhagic Fever; Hodgkin Disease|Leukemia, Lymphocytic, Chronic, B-Cell|Lymphoproliferative Disorders|Waldenstrom Macroglobulinemia; Type 2 Diabetes| edema | rosiglitazone; Alzheimer`s disease; benzene haematotoxicity; Bone Mineral Density; Hepatitis C|Remission, Spontaneous; Multiple Myeloma; Crohn`s disease ulcerative colitis; Arthritis, Rheumatoid|;
(29) SMAD2: [1] Bone Mineral Density;
(30) NBN: [3] Hodgkin Disease|Leukemia, Lymphocytic, Chronic, B-Cell|Lymphoproliferative Disorders|Waldenstrom Macroglobulinemia; benzene haematotoxicity; Lymphoma, Non-Hodgkin|Lymphoma, Non-Hodgkin`s;
(31) UBE2I: [1] Alzheimer`s disease;

- (32) IKBKB: [7] Hodgkin Disease|Leukemia, Lymphocytic, Chronic, B-Cell|Lymphoproliferative Disorders|Waldenstrom Macroglobulinemia; benzene haematotoxicity; Bone Mineral Density; Hepatitis C|Remission, Spontaneous; Multiple Myeloma; HIV; Arthritis, Rheumatoid|;
- (33) NCOA3: [2] Type 2 Diabetes| edema | rosiglitazone; Bone Mineral Density;
- (34) SMAD4: [2] Type 2 Diabetes| edema | rosiglitazone; Bone Mineral Density;
- (35) PRKCZ: [1] Type 2 Diabetes| edema | rosiglitazone;
- (36) CDK6: [4] Type 2 Diabetes| edema | rosiglitazone; Bone Mineral Density; Arthritis, Rheumatoid|Rheumatoid Arthritis; Arthritis, Rheumatoid|;
- (37) RXRA: [3] Type 2 Diabetes| edema | rosiglitazone; Alzheimer`s disease; Bone Mineral Density;
- (38) ADRBK1: [1] Type 2 Diabetes| edema | rosiglitazone;
- (40) THBS1: [1] Type 2 Diabetes| edema | rosiglitazone;
- (41) RAD51: [3] Hodgkin Disease|Leukemia, Lymphocytic, Chronic, B-Cell|Lymphoproliferative Disorders|Waldenstrom Macroglobulinemia; benzene haematotoxicity; Lymphoma, Non-Hodgkin|Lymphoma, Non-Hodgkin`s;
- (43) GSK3B: [3] Type 2 Diabetes| edema | rosiglitazone; Alzheimer`s disease; Bone Mineral Density;
- (44) AHR: [2] Alzheimer`s disease; Multiple Myeloma;
- (45) MAPK3: [1] Bone Mineral Density;
- (47) CD2: [1] Arthritis, Rheumatoid|;
- (48) CD28: [6] Hodgkin Disease|Leukemia, Lymphocytic, Chronic, B-Cell|Lymphoproliferative Disorders|Waldenstrom Macroglobulinemia; benzene haematotoxicity; Hepatitis C|Remission, Spontaneous; Multiple Myeloma; Arthritis, Rheumatoid|Rheumatoid Arthritis; Arthritis, Rheumatoid|;
- (49) LYN: [1] HIV;
- (52) STAT2: [3] Dengue Hemorrhagic Fever; Type 2 Diabetes| edema | rosiglitazone; Hepatitis C|Remission, Spontaneous;
- (54) NR4A1: [1] Narcolepsy;
- (60) PRKDC: [3] Hodgkin Disease|Leukemia, Lymphocytic, Chronic, B-Cell|Lymphoproliferative Disorders|Waldenstrom Macroglobulinemia; benzene haematotoxicity; Lymphoma, Non-Hodgkin|Lymphoma, Non-Hodgkin`s;
- (61) CDKN1A: [2] Type 2 Diabetes| edema | rosiglitazone; Bone Mineral Density;
- (62) MYOD1: [1] Bone Mineral Density;
- (63) PAG1: [1] Type 2 Diabetes| edema | rosiglitazone;
- (64) APH1A: [1] Alzheimer`s disease;
- (65) RFC1: [4] Type 2 Diabetes| edema | rosiglitazone; Alzheimer`s disease; Arthritis, Rheumatoid|Rheumatoid Arthritis; Arthritis, Rheumatoid|;
- (66) FANCG: [1] Type 2 Diabetes| edema | rosiglitazone;
56. CDX2:
- (6) SMAD3: [1] bone density;
- (21) CASP3: [1] colorectal cancer;
- (25) HIF1A: [1] colorectal cancer;
- (28) NFKB1: [1] colorectal cancer;
- (29) SMAD2: [1] bone density;
- (30) NBN: [1] colorectal cancer;
- (32) IKBKB: [1] colorectal cancer;
- (34) SMAD4: [1] bone density;
- (37) RXRA: [1] colorectal cancer;
- (40) THBS1: [1] colorectal cancer;
- (41) RAD51: [1] colorectal cancer;
- (44) AHR: [1] colorectal cancer;
- (48) CD28: [1] colorectal cancer;
- (61) CDKN1A: [1] colorectal cancer;
- (65) RFC1: [1] colorectal cancer;
- (66) FANCG: [1] colorectal cancer;
57. FOXO3:
- (2) PIK3R1: [1] longevity;
- (7) PTK2: [1] Multiple Sclerosis;
- (12) SHC1: [1] longevity;
- (20) PTK2B: [1] longevity;
- (25) HIF1A: [1] longevity;
- (26) FYN: [1] Cleft Lip|Cleft Palate|Tooth Abnormalities;
- (27) MAPK1: [1] Multiple Sclerosis;
- (44) AHR: [1] Cholesterol, HDL;
- (50) FOXO4: [1] body mass;
58. PXN:
- (21) CASP3: [1] lung cancer;
- (25) HIF1A: [1] lung cancer;
- (28) NFKB1: [1] lung cancer;
- (30) NBN: [1] lung cancer;

- (31) UBE2I: [1] lung cancer;
 - (33) NCOA3: [1] lung cancer;
 - (37) RXRA: [1] lung cancer;
 - (39) NCOA6: [1] lung cancer;
 - (41) RAD51: [1] lung cancer;
 - (43) GSK3B: [1] lung cancer;
 - (44) AHR: [1] lung cancer;
 - (59) MNAT1: [1] lung cancer;
 - (60) PRKDC: [1] lung cancer;
 - (61) CDKN1A: [1] lung cancer;
 - (65) RFC1: [1] lung cancer;
 - (66) FANCG: [1] lung cancer;
59. MNAT1:
- (2) PIK3R1: [3] Tobacco Use Disorder; Cholesterol; Body Mass Index;
 - (4) PLCG1: [1] multiple sclerosis;
 - (5) GRB2: [1] Tobacco Use Disorder;
 - (6) SMAD3: [1] Tobacco Use Disorder;
 - (11) FHL2: [1] Body Mass Index;
 - (12) SHC1: [1] Tobacco Use Disorder;
 - (14) NCOA2: [1] Tobacco Use Disorder;
 - (16) DAXX: [1] Cholesterol;
 - (18) HDAC1: [1] Tobacco Use Disorder;
 - (20) PTK2B: [1] Tobacco Use Disorder;
 - (21) CASP3: [2] lung cancer; multiple sclerosis;
 - (23) PRKCD: [1] Tobacco Use Disorder;
 - (24) MDM4: [1] Tobacco Use Disorder;
 - (25) HIF1A: [1] lung cancer;
 - (28) NFKB1: [2] Tobacco Use Disorder; lung cancer;
 - (30) NBN: [3] Tobacco Use Disorder; lung cancer; multiple sclerosis;
 - (31) UBE2I: [1] lung cancer;
 - (33) NCOA3: [1] lung cancer;
 - (36) CDK6: [1] head and neck cancer;
 - (37) RXRA: [2] Tobacco Use Disorder; lung cancer;
 - (39) NCOA6: [2] Tobacco Use Disorder; lung cancer;
 - (41) RAD51: [3] head and neck cancer; lung cancer; multiple sclerosis;
 - (43) GSK3B: [1] lung cancer;
 - (44) AHR: [1] lung cancer;
 - (48) CD28: [1] multiple sclerosis;
 - (49) LYN: [1] Tobacco Use Disorder;
 - (51) HIPK2: [1] Tobacco Use Disorder;
 - (58) PXN: [1] lung cancer;
 - (60) PRKDC: [4] head and neck cancer; Tobacco Use Disorder; lung cancer; multiple sclerosis;
 - (61) CDKN1A: [2] head and neck cancer; lung cancer;
 - (63) PAG1: [1] Tobacco Use Disorder;
 - (64) APH1A: [1] Tobacco Use Disorder;
 - (65) RFC1: [2] lung cancer; multiple sclerosis;
 - (66) FANCG: [1] lung cancer;
60. PRKDC:
- (1) STAT5A: [1] breast cancer;
 - (2) PIK3R1: [3] prostate cancer; Tobacco Use Disorder; Body Weight;
 - (4) PLCG1: [1] multiple sclerosis;
 - (5) GRB2: [1] Tobacco Use Disorder;
 - (6) SMAD3: [3] prostate cancer; Tobacco Use Disorder; breast cancer;
 - (8) JUN: [1] breast cancer;
 - (11) FHL2: [1] Body Weight;
 - (12) SHC1: [2] Tobacco Use Disorder; breast cancer;
 - (13) HSP90AA1: [1] breast cancer;
 - (14) NCOA2: [3] prostate cancer; Tobacco Use Disorder; breast cancer;
 - (18) HDAC1: [1] Tobacco Use Disorder;
 - (19) MED1: [2] prostate cancer; breast cancer;
 - (20) PTK2B: [1] Tobacco Use Disorder;
 - (21) CASP3: [7] Hodgkin Disease|Leukemia, Lymphocytic, Chronic, B-Cell|Lymphoproliferative Disorders|Waldenstrom Macroglobulinemia; benzene haematotoxicity; Leukemia, Lymphocytic, Chronic, B-Cell; bladder cancer; lung cancer; Lymphoma, Non-Hodgkin|Lymphoma, Non-Hodgkin`s; multiple sclerosis;

(22) RELA: [3]Hodgkin Disease|Leukemia, Lymphocytic, Chronic, B-Cell|Lymphoproliferative Disorders|Waldenstrom Macroglobulinemia; benzene haematotoxicity; breast cancer;

(23) PRKCD: [1] Tobacco Use Disorder;

(24) MDM4: [3] prostate cancer; Tobacco Use Disorder; breast cancer;

(25) HIF1A: [4] kidney cancer; prostate cancer; lung cancer; breast cancer;

(27) MAPK1: [1] breast cancer;

(28) NFKB1: [8] prostate cancer; Tobacco Use Disorder; Hodgkin Disease|Leukemia, Lymphocytic, Chronic, B-Cell|Lymphoproliferative Disorders|Waldenstrom Macroglobulinemia; benzene haematotoxicity; bladder cancer; lung cancer; breast cancer; Body Weight;

(30) NBN: [11]Brain Neoplasms|Glioma; prostate cancer; Tobacco Use Disorder; Hodgkin Disease|Leukemia, Lymphocytic, Chronic, B-Cell|Lymphoproliferative Disorders|Waldenstrom Macroglobulinemia; benzene haematotoxicity; Leukemia, Lymphocytic, Chronic, B-Cell; bladder cancer; lung cancer; breast cancer; Lymphoma, Non-Hodgkin|Lymphoma, Non-Hodgkin`s; multiple sclerosis;

(31) UBE2I: [2] lung cancer; breast cancer;

(32) IKBKB: [2] Hodgkin Disease|Leukemia, Lymphocytic, Chronic, B-Cell|Lymphoproliferative Disorders|Waldenstrom Macroglobulinemia; benzene haematotoxicity;

(33) NCOA3: [4] prostate cancer; bladder cancer; lung cancer; breast cancer;

(36) CDK6: [4]head and neck cancer; Leukemia, Lymphocytic, Chronic, B-Cell; bladder cancer; breast cancer;

(37) RXRA: [5] prostate cancer; Tobacco Use Disorder; bladder cancer; lung cancer; Body Weight;

(39) NCOA6: [2] Tobacco Use Disorder; lung cancer;

(40) THBS1: [1] prostate cancer;

(41) RAD51: [13] Brain Neoplasms|Glioma; head and neck cancer; prostate cancer; Hodgkin Disease|Leukemia, Lymphocytic, Chronic, B-Cell|Lymphoproliferative Disorders|Waldenstrom Macroglobulinemia; brain cancer; benzene haematotoxicity; Carcinoma, Papillary|Thyroid Neoplasms; Leukemia, Lymphocytic, Chronic, B-Cell; bladder cancer; lung cancer; breast cancer; Lymphoma, Non-Hodgkin|Lymphoma, Non-Hodgkin`s; multiple sclerosis;

(43) GSK3B: [3] bladder cancer; lung cancer; breast cancer;

(44) AHR: [3] bladder cancer; lung cancer; breast cancer;

(46) MDC1: [1] Leukemia, Lymphocytic, Chronic, B-Cell;

(48) CD28: [4]Hodgkin Disease|Leukemia, Lymphocytic, Chronic, B-Cell|Lymphoproliferative Disorders|Waldenstrom Macroglobulinemia; benzene haematotoxicity; Leukemia, Lymphocytic, Chronic, B-Cell; multiple sclerosis;

(49) LYN: [2] Tobacco Use Disorder; Body Weight;

(51) HIPK2: [1] Tobacco Use Disorder;

(55) TRAF6: [3] Hodgkin Disease|Leukemia, Lymphocytic, Chronic, B-Cell|Lymphoproliferative Disorders|Waldenstrom Macroglobulinemia; benzene haematotoxicity; Lymphoma, Non-Hodgkin|Lymphoma, Non-Hodgkin`s;

(58) PXN: [1] lung cancer;

(59) MNAT1: [4] head and neck cancer; Tobacco Use Disorder; lung cancer; multiple sclerosis;

(61) CDKN1A: [5] head and neck cancer; prostate cancer; bladder cancer; lung cancer; breast cancer;

(63) PAG1: [1] Tobacco Use Disorder;

(64) APH1A: [1] Tobacco Use Disorder;

(65) RFC1: [5] prostate cancer; bladder cancer; lung cancer; breast cancer; multiple sclerosis;

(66) FANCG: [4] prostate cancer; bladder cancer; lung cancer; breast cancer;

61. CDKN1A:

(1) STAT5A: [2] breast cancer; Lupus Erythematosus, Systemic|Systemic lupus erythematosus;

(2) PIK3R1: [3] prostate cancer; Type 2 Diabetes| edema | rosiglitazone; Pancreatic Neoplasms;

(3) PTPN6: [1] Lupus Erythematosus, Systemic|Systemic lupus erythematosus;

(4) PLCG1: [2] Type 2 Diabetes| edema | rosiglitazone; Chronic renal failure|Kidney Failure, Chronic;

(5) GRB2: [1] Type 2 Diabetes| edema | rosiglitazone;

(6) SMAD3: [5] prostate cancer; Bone Mineral Density; epithelial ovarian cancer; Pancreatic Neoplasms; breast cancer;

(8) JUN: [4] Type 2 Diabetes| edema | rosiglitazone; ovarian cancer; breast cancer; Chronic renal failure|Kidney Failure, Chronic;

(12) SHC1: [1] breast cancer;

(13) HSP90AA1: [2]Type 2 Diabetes| edema | rosiglitazone; breast cancer;

(14) NCOA2: [4] prostate cancer; Type 2 Diabetes| edema | rosiglitazone; Bone Mineral Density; breast cancer;

(15) KAT2B: [1] ovarian cancer;

(17) CEBPB: [1] Bone Mineral Density;

(18) HDAC1: [1] epithelial ovarian cancer;

(19) MED1: [2] prostate cancer; breast cancer;

(20) PTK2B: [2] Type 2 Diabetes| edema | rosiglitazone; Chronic renal failure|Kidney Failure, Chronic;

(21) CASP3: [7] Type 2 Diabetes| edema | rosiglitazone; colorectal cancer; Bone Mineral Density; esophageal adenocarcinoma; bladder cancer; lung cancer; Chronic renal failure|Kidney Failure, Chronic;

(22) RELA: [2]Type 2 Diabetes| edema | rosiglitazone; breast cancer;

(23) PRKCD: [1] Type 2 Diabetes| edema | rosiglitazone;

(24) MDM4: [4] prostate cancer; Type 2 Diabetes| edema | rosiglitazone; ovarian cancer; breast cancer;

(25) HIF1A: [9] prostate cancer; Type 2 Diabetes| edema | rosiglitazone; colorectal cancer; esophageal cancer; esophageal adenocarcinoma; lung cancer; ovarian cancer; breast cancer; Chronic renal failure|Kidney Failure, Chronic;

(26) FYN: [2] Type 2 Diabetes| edema | rosiglitazone; Lupus Erythematosus, Systemic|Systemic lupus erythematosus;

(27) MAPK1: [4] Type 2 Diabetes| edema | rosiglitazone; ovarian cancer; breast cancer; Chronic renal failure|Kidney Failure, Chronic;

(28) NFKB1: [11] prostate cancer; Type 2 Diabetes| edema | rosiglitazone; colorectal cancer; Bone Mineral Density; esophageal adenocarcinoma; bladder cancer; melanoma; lung cancer; breast cancer; Chronic renal failure|Kidney Failure, Chronic; oral cancer;

(29) SMAD2: [3] Bone Mineral Density; esophageal adenocarcinoma; Pancreatic Neoplasms;

(30) NBN: [17]Mouth Neoplasms|Precancerous Conditions; prostate cancer; leukemia; Colorectal Neoplasms; colorectal cancer; Chromosome Aberrations|DNA Damage; Adenocarcinoma|Pancreatic Neoplasms; stomach cancer; esophageal adenocarcinoma; epithelial ovarian cancer; bladder cancer; melanoma; lung cancer; ovarian cancer; breast cancer; Chronic renal failure|Kidney Failure, Chronic; Lupus Erythematosus, Systemic|Systemic lupus erythematosus;

(31) UBE2I: [2] lung cancer; breast cancer;

(32) IKBKB: [2] colorectal cancer; Bone Mineral Density;

(33) NCOA3: [8] prostate cancer; Type 2 Diabetes| edema | rosiglitazone; Bone Mineral Density; epithelial ovarian cancer; bladder cancer; lung cancer; ovarian cancer; breast cancer;

(34) SMAD4: [3] Type 2 Diabetes| edema | rosiglitazone; Bone Mineral Density; Pancreatic Neoplasms;

(35) PRKCZ: [1] Type 2 Diabetes| edema | rosiglitazone;

(36) CDK6: [9]head and neck cancer; Mouth Neoplasms|Precancerous Conditions; Type 2 Diabetes| edema | rosiglitazone; Bone Mineral Density; esophageal adenocarcinoma; bladder cancer; ovarian cancer; breast cancer; Chronic renal failure|Kidney Failure, Chronic;

(37) RXRA: [7] prostate cancer; Type 2 Diabetes| edema | rosiglitazone; colorectal cancer; Bone Mineral Density; bladder cancer; lung cancer; Chronic renal failure|Kidney Failure, Chronic;

(38) ADRBK1: [1] Type 2 Diabetes| edema | rosiglitazone;

(39) NCOA6: [1] lung cancer;

(40) THBS1: [5] prostate cancer; Type 2 Diabetes| edema | rosiglitazone; colorectal cancer; esophageal adenocarcinoma; Chronic renal failure|Kidney Failure, Chronic;

(41) RAD51: [13] head and neck cancer; prostate cancer; leukemia; Colorectal Neoplasms; colorectal cancer; Adenocarcinoma|Pancreatic Neoplasms; stomach cancer; esophageal adenocarcinoma; epithelial ovarian cancer; bladder cancer; lung cancer; ovarian cancer; breast cancer;

(43) GSK3B: [7] Type 2 Diabetes| edema | rosiglitazone; Bone Mineral Density; stomach cancer; esophageal adenocarcinoma; bladder cancer; lung cancer; breast cancer;

(44) AHR: [8] Colorectal Neoplasms; colorectal cancer; lymphoma; esophageal adenocarcinoma; bladder cancer; lung cancer; breast cancer; Chronic renal failure|Kidney Failure, Chronic;

(45) MAPK3: [1] Bone Mineral Density;

(46) MDC1: [1] Adenocarcinoma|Pancreatic Neoplasms;

(48) CD28: [5] colorectal cancer; melanoma; Chronic renal failure|Kidney Failure, Chronic; Lupus Erythematosus, Systemic|Systemic lupus erythematosus; cervical cancer;

(49) LYN: [1] Lupus Erythematosus, Systemic|Systemic lupus erythematosus;

(52) STAT2: [1] Type 2 Diabetes| edema | rosiglitazone;

(55) TRAF6: [2] Type 2 Diabetes| edema | rosiglitazone; Bone Mineral Density;

(56) CDX2: [1]colorectal cancer;

(58) PXN: [1] lung cancer;

(59) MNAT1: [2] head and neck cancer; lung cancer;

(60) PRKDC: [5] head and neck cancer; prostate cancer; bladder cancer; lung cancer; breast cancer;

(62) MYOD1: [1] Bone Mineral Density;

(63) PAG1: [1] Type 2 Diabetes| edema | rosiglitazone;

(65) RFC1: [9] prostate cancer; Type 2 Diabetes| edema | rosiglitazone; colorectal cancer; Chromosome Aberrations|DNA Damage; bladder cancer; Cervical Neoplasm|Uterine Cervical Neoplasms; lung cancer; pharmacogenetic studies; breast cancer;

(66) FANCG: [10] prostate cancer; Type 2 Diabetes| edema | rosiglitazone; Colorectal Neoplasms; colorectal cancer; Adenocarcinoma|Pancreatic Neoplasms; epithelial ovarian cancer; Esophageal Neoplasms|Head and Neck Neoplasms|Laryngeal Neoplasms|Mouth Neoplasms|Pharyngeal Neoplasms; bladder cancer; lung cancer; breast cancer;

62. MYOD1:

(6) SMAD3: [1] Bone Mineral Density;

(14) NCOA2: [1] Bone Mineral Density;

(17) CEBPB: [1] Bone Mineral Density;

(21) CASP3: [1] Bone Mineral Density;

(28) NFKB1: [1] Bone Mineral Density;

(29) SMAD2: [1] Bone Mineral Density;

(32) IKBKB: [1] Bone Mineral Density;

(33) NCOA3: [1] Bone Mineral Density;

(34) SMAD4: [1] Bone Mineral Density;

(36) CDK6: [1]Bone Mineral Density;

(37) RXRA: [1] Bone Mineral Density;

(43) GSK3B: [1] Bone Mineral Density;

(45) MAPK3: [1] Bone Mineral Density;

- (55) TRAF6: [1] Bone Mineral Density;
(61) CDKN1A: [1] Bone Mineral Density;
63. PAG1:
- (2) PIK3R1: [2] Tobacco Use Disorder; Type 2 Diabetes| edema | rosiglitazone;
(4) PLCG1: [1] Type 2 Diabetes| edema | rosiglitazone;
(5) GRB2: [2] Tobacco Use Disorder; Type 2 Diabetes| edema | rosiglitazone;
(6) SMAD3: [2] Tobacco Use Disorder; Heart Rate;
(7) PTK2: [1] Heart Rate;
(8) JUN: [1] Type 2 Diabetes| edema | rosiglitazone;
(12) SHC1: [1] Tobacco Use Disorder;
(13) HSP90AA1: [1] Type 2 Diabetes| edema | rosiglitazone;
(14) NCOA2: [2] Tobacco Use Disorder; Type 2 Diabetes| edema | rosiglitazone;
(18) HDAC1: [1] Tobacco Use Disorder;
(20) PTK2B: [2] Tobacco Use Disorder; Type 2 Diabetes| edema | rosiglitazone;
(21) CASP3: [1] Type 2 Diabetes| edema | rosiglitazone;
(22) RELA: [1] Type 2 Diabetes| edema | rosiglitazone;
(23) PRKCD: [2] Tobacco Use Disorder; Type 2 Diabetes| edema | rosiglitazone;
(24) MDM4: [2] Tobacco Use Disorder; Type 2 Diabetes| edema | rosiglitazone;
(25) HIF1A: [1] Type 2 Diabetes| edema | rosiglitazone;
(26) FYN: [1] Type 2 Diabetes| edema | rosiglitazone;
(27) MAPK1: [2] Type 2 Diabetes| edema | rosiglitazone; Heart Rate;
(28) NFKB1: [2] Tobacco Use Disorder; Type 2 Diabetes| edema | rosiglitazone;
(30) NBN: [1] Tobacco Use Disorder;
(33) NCOA3: [1] Type 2 Diabetes| edema | rosiglitazone;
(34) SMAD4: [1] Type 2 Diabetes| edema | rosiglitazone;
(35) PRKCZ: [1] Type 2 Diabetes| edema | rosiglitazone;
(36) CDK6: [1] Type 2 Diabetes| edema | rosiglitazone;
(37) RXRA: [2] Tobacco Use Disorder; Type 2 Diabetes| edema | rosiglitazone;
(38) ADRBK1: [1] Type 2 Diabetes| edema | rosiglitazone;
(39) NCOA6: [1] Tobacco Use Disorder;
(40) THBS1: [1] Type 2 Diabetes| edema | rosiglitazone;
(43) GSK3B: [1] Type 2 Diabetes| edema | rosiglitazone;
(44) AHR: [1] Heart Rate;
(49) LYN: [1] Tobacco Use Disorder;
(51) HIPK2: [1] Tobacco Use Disorder;
(52) STAT2: [1] Type 2 Diabetes| edema | rosiglitazone;
(55) TRAF6: [1] Type 2 Diabetes| edema | rosiglitazone;
(59) MNAT1: [1] Tobacco Use Disorder;
(60) PRKDC: [1] Tobacco Use Disorder;
(61) CDKN1A: [1] Type 2 Diabetes| edema | rosiglitazone;
(64) APH1A: [1] Tobacco Use Disorder;
(65) RFC1: [1] Type 2 Diabetes| edema | rosiglitazone;
(66) FANCG: [1] Type 2 Diabetes| edema | rosiglitazone;
64. APH1A:
- (2) PIK3R1: [1] Tobacco Use Disorder;
(3) PTPN6: [1] Alzheimer`s disease;
(5) GRB2: [2] Tobacco Use Disorder; Alzheimer`s disease;
(6) SMAD3: [2] Tobacco Use Disorder; Alzheimer`s disease;
(12) SHC1: [1] Tobacco Use Disorder;
(14) NCOA2: [1] Tobacco Use Disorder;
(18) HDAC1: [1] Tobacco Use Disorder;
(20) PTK2B: [1] Tobacco Use Disorder;
(23) PRKCD: [1] Tobacco Use Disorder;
(24) MDM4: [1] Tobacco Use Disorder;
(28) NFKB1: [2] Tobacco Use Disorder; Alzheimer`s disease;
(30) NBN: [1] Tobacco Use Disorder;
(31) UBE2I: [1] Alzheimer`s disease;
(37) RXRA: [2] Tobacco Use Disorder; Alzheimer`s disease;
(39) NCOA6: [1] Tobacco Use Disorder;
(43) GSK3B: [1] Alzheimer`s disease;
(44) AHR: [1] Alzheimer`s disease;
(49) LYN: [1] Tobacco Use Disorder;
(51) HIPK2: [1] Tobacco Use Disorder;
(55) TRAF6: [1] Alzheimer`s disease;

- (59) MNAT1: [1] Tobacco Use Disorder;
- (60) PRKDC: [1] Tobacco Use Disorder;
- (63) PAG1: [1] Tobacco Use Disorder;
- (65) RFC1: [1] Alzheimer`s disease;
65. RFC1:
- (1) STAT5A: [2] Precursor Cell Lymphoblastic Leukemia-Lymphoma; breast cancer;
- (2) PIK3R1: [2] prostate cancer; Type 2 Diabetes| edema | rosiglitazone;
- (3) PTPN6: [2] Alzheimer`s disease; rheumatoid arthritis;
- (4) PLCG1: [2] Type 2 Diabetes| edema | rosiglitazone; multiple sclerosis;
- (5) GRB2: [2] Type 2 Diabetes| edema | rosiglitazone; Alzheimer`s disease;
- (6) SMAD3: [5] prostate cancer; Alzheimer`s disease; Cleft Lip|Cleft Palate; breast cancer; Graft vs Host Disease;
- (8) JUN: [3] Type 2 Diabetes| edema | rosiglitazone; breast cancer; Body Weights and Measures;
- (11) FHL2: [1] Hypertension;
- (12) SHC1: [1] breast cancer;
- (13) HSP90AA1: [3] Type 2 Diabetes| edema | rosiglitazone; Cleft Lip|Cleft Palate; breast cancer;
- (14) NCOA2: [3] prostate cancer; Type 2 Diabetes| edema | rosiglitazone; breast cancer;
- (16) DAXX: [1] Precursor Cell Lymphoblastic Leukemia-Lymphoma;
- (19) MED1: [2] prostate cancer; breast cancer;
- (20) PTK2B: [1] Type 2 Diabetes| edema | rosiglitazone;
- (21) CASP3: [5] Type 2 Diabetes| edema | rosiglitazone; colorectal cancer; bladder cancer; lung cancer; multiple sclerosis;
- (22) RELA: [3] Type 2 Diabetes| edema | rosiglitazone; Arthritis, Rheumatoid|; breast cancer;
- (23) PRKCD: [1] Type 2 Diabetes| edema | rosiglitazone;
- (24) MDM4: [3] prostate cancer; Type 2 Diabetes| edema | rosiglitazone; breast cancer;
- (25) HIF1A: [6] prostate cancer; Type 2 Diabetes| edema | rosiglitazone; colorectal cancer; Cleft Lip|Cleft Palate; lung cancer; breast cancer;
- (26) FYN: [1] Type 2 Diabetes| edema | rosiglitazone;
- (27) MAPK1: [2] Type 2 Diabetes| edema | rosiglitazone; breast cancer;
- (28) NFKB1: [11] Alcoholism; prostate cancer; Type 2 Diabetes| edema | rosiglitazone; colorectal cancer; Alzheimer`s disease; Precursor Cell Lymphoblastic Leukemia-Lymphoma; rheumatoid arthritis; bladder cancer; lung cancer; Arthritis, Rheumatoid|; breast cancer;
- (29) SMAD2: [1] Cleft Lip|Cleft Palate;
- (30) NBN: [8] prostate cancer; colorectal cancer; Chromosome Aberrations|DNA Damage; Cleft Lip|Cleft Palate; bladder cancer; lung cancer; breast cancer; multiple sclerosis;
- (31) UBE2I: [3] Alzheimer`s disease; lung cancer; breast cancer;
- (32) IKBKB: [2] colorectal cancer; Arthritis, Rheumatoid|;
- (33) NCOA3: [7] Alcoholism; prostate cancer; Type 2 Diabetes| edema | rosiglitazone; Precursor Cell Lymphoblastic Leukemia-Lymphoma; bladder cancer; lung cancer; breast cancer;
- (34) SMAD4: [2] Type 2 Diabetes| edema | rosiglitazone; Cleft Lip|Cleft Palate;
- (35) PRK CZ: [1] Type 2 Diabetes| edema | rosiglitazone;
- (36) CDK6: [7] Type 2 Diabetes| edema | rosiglitazone; Arthritis, Rheumatoid; rheumatoid arthritis; bladder cancer; Arthritis, Rheumatoid|Rheumatoid Arthritis; breast cancer; Arthritis, Rheumatoid|;
- (37) RXRA: [6] prostate cancer; Type 2 Diabetes| edema | rosiglitazone; colorectal cancer; Alzheimer`s disease; bladder cancer; lung cancer;
- (38) ADRBK1: [1] Type 2 Diabetes| edema | rosiglitazone;
- (39) NCOA6: [1] lung cancer;
- (40) THBS1: [3] prostate cancer; Type 2 Diabetes| edema | rosiglitazone; colorectal cancer;
- (41) RAD51: [6] prostate cancer; colorectal cancer; bladder cancer; lung cancer; breast cancer; multiple sclerosis;
- (43) GSK3B: [6] Alcoholism; Type 2 Diabetes| edema | rosiglitazone; Alzheimer`s disease; bladder cancer; lung cancer; breast cancer;
- (44) AHR: [6] colorectal cancer; Alzheimer`s disease; Cleft Lip|Cleft Palate; bladder cancer; lung cancer; breast cancer;
- (47) CD2: [1] Arthritis, Rheumatoid|;
- (48) CD28: [5] colorectal cancer; Precursor Cell Lymphoblastic Leukemia-Lymphoma; Arthritis, Rheumatoid|Rheumatoid Arthritis; Arthritis, Rheumatoid|; multiple sclerosis;
- (52) STAT2: [1] Type 2 Diabetes| edema | rosiglitazone;
- (55) TRAF6: [4] Type 2 Diabetes| edema | rosiglitazone; Alzheimer`s disease; Arthritis, Rheumatoid|Rheumatoid Arthritis; Arthritis, Rheumatoid|;
- (56) CDX2: [1] colorectal cancer;
- (58) PXN: [1] lung cancer;
- (59) MNAT1: [2] lung cancer; multiple sclerosis;
- (60) PRKDC: [5] prostate cancer; bladder cancer; lung cancer; breast cancer; multiple sclerosis;
- (61) CDKN1A: [9] prostate cancer; Type 2 Diabetes| edema | rosiglitazone; colorectal cancer; Chromosome Aberrations|DNA Damage; bladder cancer; Cervical Neoplasm|Uterine Cervical Neoplasms; lung cancer; pharmacogenetic studies; breast cancer;
- (63) PAG1: [1] Type 2 Diabetes| edema | rosiglitazone;
- (64) APH1A: [1] Alzheimer`s disease;

(66) FANCG: [6] prostate cancer; Type 2 Diabetes| edema | rosiglitazone; colorectal cancer; bladder cancer; lung cancer; breast cancer;

66. FANCG:

(1) STAT5A: [1] breast cancer;

(2) PIK3R1: [2] prostate cancer; Type 2 Diabetes| edema | rosiglitazone;

(4) PLCG1: [1] Type 2 Diabetes| edema | rosiglitazone;

(5) GRB2: [1] Type 2 Diabetes| edema | rosiglitazone;

(6) SMAD3: [3] prostate cancer; epithelial ovarian cancer; breast cancer;

(8) JUN: [2] Type 2 Diabetes| edema | rosiglitazone; breast cancer;

(12) SHC1: [1] breast cancer;

(13) HSP90AA1: [2] Type 2 Diabetes| edema | rosiglitazone; breast cancer;

(14) NCOA2: [3] prostate cancer; Type 2 Diabetes| edema | rosiglitazone; breast cancer;

(18) HDAC1: [1] epithelial ovarian cancer;

(19) MED1: [2] prostate cancer; breast cancer;

(20) PTK2B: [1] Type 2 Diabetes| edema | rosiglitazone;

(21) CASP3: [4] Type 2 Diabetes| edema | rosiglitazone; colorectal cancer; bladder cancer; lung cancer;

(22) RELA: [2] Type 2 Diabetes| edema | rosiglitazone; breast cancer;

(23) PRKCD: [1] Type 2 Diabetes| edema | rosiglitazone;

(24) MDM4: [3] prostate cancer; Type 2 Diabetes| edema | rosiglitazone; breast cancer;

(25) HIF1A: [5] prostate cancer; Type 2 Diabetes| edema | rosiglitazone; colorectal cancer; lung cancer; breast cancer;

(26) FYN: [1] Type 2 Diabetes| edema | rosiglitazone;

(27) MAPK1: [2] Type 2 Diabetes| edema | rosiglitazone; breast cancer;

(28) NFKB1: [6] prostate cancer; Type 2 Diabetes| edema | rosiglitazone; colorectal cancer; bladder cancer; lung cancer; breast cancer;

(30) NBN: [8] prostate cancer; Colorectal Neoplasms; colorectal cancer; Adenocarcinoma|Pancreatic Neoplasms; epithelial ovarian cancer; bladder cancer; lung cancer; breast cancer;

(31) UBE2I: [2] lung cancer; breast cancer;

(32) IKBKB: [1] colorectal cancer;

(33) NCOA3: [6] prostate cancer; Type 2 Diabetes| edema | rosiglitazone; epithelial ovarian cancer; bladder cancer; lung cancer; breast cancer;

(34) SMAD4: [1] Type 2 Diabetes| edema | rosiglitazone;

(35) PRKCZ: [1] Type 2 Diabetes| edema | rosiglitazone;

(36) CDK6: [3] Type 2 Diabetes| edema | rosiglitazone; bladder cancer; breast cancer;

(37) RXRA: [5] prostate cancer; Type 2 Diabetes| edema | rosiglitazone; colorectal cancer; bladder cancer; lung cancer;

(38) ADRBK1: [1] Type 2 Diabetes| edema | rosiglitazone;

(39) NCOA6: [1] lung cancer;

(40) THBS1: [3] prostate cancer; Type 2 Diabetes| edema | rosiglitazone; colorectal cancer;

(41) RAD51: [8] prostate cancer; Colorectal Neoplasms; colorectal cancer; Adenocarcinoma|Pancreatic Neoplasms; epithelial ovarian cancer; bladder cancer; lung cancer; breast cancer;

(43) GSK3B: [4] Type 2 Diabetes| edema | rosiglitazone; bladder cancer; lung cancer; breast cancer;

(44) AHR: [5] Colorectal Neoplasms; colorectal cancer; bladder cancer; lung cancer; breast cancer;

(46) MDC1: [1] Adenocarcinoma|Pancreatic Neoplasms;

(48) CD28: [1] colorectal cancer;

(52) STAT2: [1] Type 2 Diabetes| edema | rosiglitazone;

(55) TRAF6: [1] Type 2 Diabetes| edema | rosiglitazone;

(56) CDX2: [1] colorectal cancer;

(58) PXN: [1] lung cancer;

(59) MNAT1: [1] lung cancer;

(60) PRKDC: [4] prostate cancer; bladder cancer; lung cancer; breast cancer;

(61) CDKN1A: [10] prostate cancer; Type 2 Diabetes| edema | rosiglitazone; Colorectal Neoplasms; colorectal cancer; Adenocarcinoma|Pancreatic Neoplasms; epithelial ovarian cancer; Esophageal Neoplasms|Head and Neck Neoplasms|Laryngeal Neoplasms|Mouth Neoplasms|Pharyngeal Neoplasms; bladder cancer; lung cancer; breast cancer;

(63) PAG1: [1] Type 2 Diabetes| edema | rosiglitazone;

(65) RFC1: [6] prostate cancer; Type 2 Diabetes| edema | rosiglitazone; colorectal cancer; bladder cancer; lung cancer; breast cancer;