## Top canonical pathways

| SHR vs WKY 6 weeks            |          |                |
|-------------------------------|----------|----------------|
| Name                          | p-value  | ratio          |
| LXR/RXR Activation            | 1.54E-06 | 18/121 (0.149) |
| OX40 Signaling Pathway        | 2.32E-06 | 15/89 (0.169)  |
| Complement System             | 4.12E-06 | 9/33 (0.273)   |
| Allograft Rejection Signaling | 3.62E-05 | 13/86 (0.151)  |
| Serine Biosynthesis           | 6.03E-04 | 3/5 (0.6)      |

| SHR vs WKY 5 months   |             |                |
|---|-------------|----------------|
| Name  | # molecules | p-value        |
| Atherosclerosis Signaling                                   | 6.01E-10    | 28/123 (0.228) |
| Granulocyte Adhesion and Diapedesis                         | 4.37E-09    | 33/177 (0.186) |
| Agranulocyte Adhesion and Diapedesis                        | 6.64E-09    | 34/189 (0.18)  |
| Hepatic Fibrosis / Hepatic Stellate Cell Activation         | 6.64E-08    | 33/197 (0.168) |
| Altered T Cell and B Cell Signaling in Rheumatoid Arthritis | 5.70E-05    | 16/88 (0.182)  |

## Top Networks

| SHR vs WKY 6 weeks  |               |       |
|---|---------------|-------|
| Associated Network Functions  |               | score |
| Cell-To-Cell Signaling and Interaction, Cell Signaling, Cardiovascular System Development and Function      |               | 39    |
| Developmental Disorder, Hereditary Disorder, Immunological Disease  |               | 34    |
| Cellular Development, Connective Tissue Development and Function, Digestive System Development and Function |               | 30    |
| Organismal Development, Carbohydrate Metabolism, Molecular  | Transport     | 29    |
| Cell Death and Survival, Connective Tissue Disorders, Developmen  | ntal Disorder | 29    |

| SHR vs WKY 5 months   |       |
|---|-------|
| Associated Network Functions  | score |
| Lipid Metabolism, Small Molecule Biochemistry, Vitamin and Mineral Metabolism                       | 38    |
| Developmental Disorder, Hereditary Disorder, Immunological Disease                                  | 38    |
| Cell Cycle, Cellular Assembly and Organization, DNA Replication, Recombination, and Repair          | 33    |
| Hematological System Development and Function, Cell Death and Survival, Connective Tissue Disorders | 31    |
| Cardiovascular System Development and Function, Organismal Development, Cardiovascular Disease      | 31    |

## Molecular and Cellular Functions

| SHR vs WKY 6 weeks                |                     |             |
|-----------------------------------|---------------------|-------------|
| Name                              | p-value             | # Molecules |
| Cellular Movement                 | 5.96E-20 - 1.55E-04 | 212         |
| Lipid Metabolism                  | 1.11E-16 - 1.42E-04 | 167         |
| Small Molecule Biochemistry       | 1.11E-16 - 1.94E-04 | 237         |
| Cellular Growth and Proliferation | 1.45E-15 - 2.15E-04 | 292         |
| Molecular Transport               | 3.55E-15 - 1.79E-04 | 222         |

| SHR vs WKY 5 months                    |                     |             |
|--|---------------------|-------------|
| Name                                   | p-value             | # Molecules |
| Cellular Movement                      | 2.30E-25 - 4.56E-06 | 307         |
| Cellular Growth and Proliferation      | 4.93E-24 - 5.04E-06 | 442         |
| Cell Death and Survival                | 6.99E-19 - 4.09E-06 | 415         |
| Cell-To-Cell Signaling and Interaction | 2.09E-18 - 3.99E-06 | 220         |
| Cell Morphology                        | 1.14E-17 - 1.80E-06 | 316         |

## Physiological system development and function

| SHR vs WKY 6 weeks                             |                     |             |
|--|---------------------|-------------|
| Name   | p-value             | # Molecules |
| Immune Cell Trafficking                        | 1.21E-16 - 1.55E-04 | 144         |
| Hematological System Development and Function  | 4.13E-14 - 1.55E-04 | 207         |
| Tissue Morphology                              | 3.24E-13 - 1.51E-04 | 211         |
| Cardiovascular System Development and Function | 2.56E-11 - 1.75E-04 | 157         |
| Endocrine System Development and Function      | 8.10E-11 - 2.16E-08 | 41          |

| SHR vs WKY 5 months                            |                     |             |
|--|---------------------|-------------|
| Name   | p-value             | # Molecules |
| Tissue Morphology                              | 6.11E-24 - 3.19E-06 | 295         |
| Cardiovascular System Development and Function | 8.70E-19 - 5.04E-06 | 236         |
| Hematological System Development and Function  | 1.17E-18 - 4.56E-06 | 311         |
| Organismal Development                         | 1.75E-17 - 5.04E-06 | 330         |
| Immune Cell Trafficking                        | 5.44E-16 - 4.56E-06 | 182         |