**Table 2**

Functional classification of differentially expressed genes (DEGs) using PANTHER ontologies: Over- or under-represented biological processes separating delayed graft function (DGF) and primary graft function (PF) as derived on the level of differential gene expression by t-test and SAM. Categories are ranked by the p-value (comparison of expected number of genes and observed number of genes in each biological process) indicating the relevance of a particular process.

| Biological Process | t-test (n=84) | | SAM (n=39) | |
|---|---|---|---|---|
| | number of genes | p-value | number of genes | p-value |
| **DEGs down-regulated in DGF** | | | | |
| **enriched processes** | | | | |
| Transport | 20 | <0.001 | 8 | 0.001 |
| Lipid, fatty acid and steroid metabolism | 12 | <0.001 | 5 | 0.006 |
| Amino acid metabolism | 7 | <0.001 | 2 | 0.049 |
| Steroid hormone metabolism | 4 | <0.001 | 2 | 0.002 |
| Steroid metabolism | 6 | <0.001 | 3 | 0.003 |
| Ion transport | 9 | <0.001 | - | - |
| Coenzyme and prosthetic group metabolism | 5 | <0.001 | 3 | 0.003 |
| Amino acid transport | 3 | 0.001 | - | - |
| Carbohydrate metabolism | 8 | 0.001 | - | - |
| Fatty acid metabolism | 4 | 0.004 | - | - |
| Other amino acid metabolism | 2 | 0.005 | - | - |
| Cation transport | 6 | 0.005 | - | - |
| Electron transport | 4 | 0.010 | - | - |
| Vitamin/cofactor transport | 2 | 0.011 | - | - |
| Other polysaccharide metabolism | 3 | 0.012 | - | - |
| Cell adhesion | 6 | 0.017 | - | - |
| Homeostasis | 3 | 0.028 | - | - |
| Extracellular transport and import | 2 | 0.028 | - | - |
| Anion transport | 2 | 0.034 | - | - |
| Sulfur metabolism | 2 | 0.035 | - | - |
| Proteolysis | 7 | 0.036 | - | - |
| Other developmental process | 2 | 0.042 | - | - |
| **depleted processes** | | | | |
| Nucleoside, nucleotide and nucleic acid metabolism | 5 | 0.042 | - | - |
| Intracellular protein traffic | 0 | 0.043 | - | - |
| mRNA transcription | 2 | 0.047 | - | - |
| **DEGs up-regulated in DGF** | **t-Test (n=9)** | | **SAM (n=0)** | |
| **enriched processes** | | | | |
| Blood circulation and gas exchange | 2 | <0.001 | - | - |
| Blood clotting | 2 | <0.001 | - | - |
| Immunity and defense | 3 | 0.009 | - | - |