**Supplementary Tables**

**Table S1.** Table reporting statistical data of the DAS.

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**Table S2.** Table reporting canonical pathways and relative GO processes by MetaCore

**Table S3.** Table of Process network results by MetaCore

|  |  |  |  |
| --- | --- | --- | --- |
| **Processes** | **p-value** | **FDR** | **Network Objects from Active Data** |
| [high-density lipoprotein particle remodeling](http://portal.genego.com/cgi/process.cgi?id=-585674100) | 6,051E-21 | 1,006E-17 | HDL, Pre beta-1 HDL, HDL proteins, APOE, Albumin, APOA1, Large apoE-rich HDL, APOA4, Nascent HDL |
| [very-low-density lipoprotein particle remodeling](http://portal.genego.com/cgi/process.cgi?id=-805214579) | 3,141E-19 | 1,564E-16 | HDL, Pre beta-1 HDL, HDL proteins, APOE, APOA1, Large apoE-rich HDL, APOA4, Nascent HDL |
| [protein-lipid complex remodeling](http://portal.genego.com/cgi/process.cgi?id=-1050012626) | 3,763E-19 | 1,564E-16 | HDL, Pre beta-1 HDL, HDL proteins, APOE, Albumin, APOA1, Large apoE-rich HDL, APOA4, Nascent HDL |
| [plasma lipoprotein particle remodeling](http://portal.genego.com/cgi/process.cgi?id=-543034366) | 3,763E-19 | 1,564E-16 | HDL, Pre beta-1 HDL, HDL proteins, APOE, Albumin, APOA1, Large apoE-rich HDL, APOA4, Nascent HDL |
| [protein-containing complex remodeling](http://portal.genego.com/cgi/process.cgi?id=-219268025) | 5,394E-19 | 1,680E-16 | HDL, Pre beta-1 HDL, HDL proteins, APOE, Albumin, APOA1, Large apoE-rich HDL, APOA4, Nascent HDL |
| [positive regulation of cholesterol esterification](http://portal.genego.com/cgi/process.cgi?id=-774076779) | 6,067E-19 | 1,680E-16 | HDL, Pre beta-1 HDL, HDL proteins, APOE, APOA1, Large apoE-rich HDL, APOA4, Nascent HDL |
| [platelet degranulation](http://portal.genego.com/cgi/process.cgi?id=-1657266127) | 8,656E-19 | 2,055E-16 | Glycoprotein Ib-alpha, HDL, Pre beta-1 HDL, HDL proteins, Plasminogen, Albumin, APOA1, Large apoE-rich HDL, HPRG, Nascent HDL, Alpha 1-antitrypsin |
| [phospholipid efflux](http://portal.genego.com/cgi/process.cgi?id=-698711352) | 1,114E-18 | 2,057E-16 | HDL, Pre beta-1 HDL, HDL proteins, APOE, APOA1, Large apoE-rich HDL, APOA4, Nascent HDL |
| [peripheral nervous system axon regeneration](http://portal.genego.com/cgi/process.cgi?id=-400641637) | 1,114E-18 | 2,057E-16 | HDL, Pre beta-1 HDL, HDL proteins, APOE, APOA1, Large apoE-rich HDL, APOA4, Nascent HDL |
| [chylomicron remodeling](http://portal.genego.com/cgi/process.cgi?id=-1208738775) | 1,484E-18 | 2,243E-16 | HDL, Pre beta-1 HDL, HDL proteins, APOE, APOA1, Large apoE-rich HDL, APOA4, Nascent HDL |
| [high-density lipoprotein particle assembly](http://portal.genego.com/cgi/process.cgi?id=-1298544116) | 1,484E-18 | 2,243E-16 | HDL, Pre beta-1 HDL, HDL proteins, APOE, APOA1, Large apoE-rich HDL, APOA4, Nascent HDL |
| [regulation of cholesterol esterification](http://portal.genego.com/cgi/process.cgi?id=-1112858744) | 1,958E-18 | 2,712E-16 | HDL, Pre beta-1 HDL, HDL proteins, APOE, APOA1, Large apoE-rich HDL, APOA4, Nascent HDL |
| [triglyceride-rich lipoprotein particle remodeling](http://portal.genego.com/cgi/process.cgi?id=-831858129) | 3,316E-18 | 3,936E-16 | HDL, Pre beta-1 HDL, HDL proteins, APOE, APOA1, Large apoE-rich HDL, APOA4, Nascent HDL |
| [chylomicron assembly](http://portal.genego.com/cgi/process.cgi?id=-1836713175) | 3,316E-18 | 3,936E-16 | HDL, Pre beta-1 HDL, HDL proteins, APOE, APOA1, Large apoE-rich HDL, APOA4, Nascent HDL |
| [reverse cholesterol transport](http://portal.genego.com/cgi/process.cgi?id=-721539849) | 5,433E-18 | 6,020E-16 | HDL, Pre beta-1 HDL, HDL proteins, APOE, APOA1, Large apoE-rich HDL, APOA4, Nascent HDL |
| [response to wounding](http://portal.genego.com/cgi/process.cgi?id=-456070347) | 6,751E-18 | 7,012E-16 | Factor H, C3, HDL, HP/HB complex, Thrombin, Pre beta-1 HDL, HDL proteins, Plasminogen, Adult hemoglobin, APOE, APOA1, Large apoE-rich HDL, HPRG, APOA4, Nascent HDL, Alpha 1-antitrypsin |
| [plasma lipoprotein particle organization](http://portal.genego.com/cgi/process.cgi?id=-1892121638) | 1,353E-17 | 1,323E-15 | HDL, Pre beta-1 HDL, HDL proteins, APOE, Albumin, APOA1, Large apoE-rich HDL, APOA4, Nascent HDL |
| [cellular oxidant detoxification](http://portal.genego.com/cgi/process.cgi?id=-1441897229) | 1,971E-17 | 1,819E-15 | HDL, HP/HB complex, HDL proteins, Adult hemoglobin, APOE, HP, Albumin, Large apoE-rich HDL, Alpha1-globin, APOA4 |
| [protein-lipid complex subunit organization](http://portal.genego.com/cgi/process.cgi?id=-1097639482) | 2,184E-17 | 1,910E-15 | HDL, Pre beta-1 HDL, HDL proteins, APOE, Albumin, APOA1, Large apoE-rich HDL, APOA4, Nascent HDL |
| [regulation of intestinal cholesterol absorption](http://portal.genego.com/cgi/process.cgi?id=-227549726) | 2,545E-17 | 1,923E-15 | HDL, Pre beta-1 HDL, HDL proteins, APOA1, Large apoE-rich HDL, APOA4, Nascent HDL |
| [regulation of phospholipid efflux](http://portal.genego.com/cgi/process.cgi?id=-1281274386) | 2,545E-17 | 1,923E-15 | HDL, Pre beta-1 HDL, HDL proteins, APOE, APOA1, Large apoE-rich HDL, Nascent HDL |
| [positive regulation of phospholipid efflux](http://portal.genego.com/cgi/process.cgi?id=-1741071108) | 2,545E-17 | 1,923E-15 | HDL, Pre beta-1 HDL, HDL proteins, APOE, APOA1, Large apoE-rich HDL, Nascent HDL |
| [regulation of intestinal lipid absorption](http://portal.genego.com/cgi/process.cgi?id=-1279113672) | 3,730E-17 | 2,696E-15 | HDL, Pre beta-1 HDL, HDL proteins, APOA1, Large apoE-rich HDL, APOA4, Nascent HDL |
| [cholesterol efflux](http://portal.genego.com/cgi/process.cgi?id=-1774146487) | 5,279E-17 | 3,656E-15 | HDL, Pre beta-1 HDL, HDL proteins, APOE, APOA1, Large apoE-rich HDL, APOA4, Nascent HDL |
| [cellular detoxification](http://portal.genego.com/cgi/process.cgi?id=-1118172665) | 5,765E-17 | 3,832E-15 | HDL, HP/HB complex, HDL proteins, Adult hemoglobin, APOE, HP, Albumin, Large apoE-rich HDL, Alpha1-globin, APOA4 |
| [regulation of Cdc42 protein signal transduction](http://portal.genego.com/cgi/process.cgi?id=-1877530326) | 1,050E-16 | 6,710E-15 | HDL, Pre beta-1 HDL, HDL proteins, APOE, APOA1, Large apoE-rich HDL, Nascent HDL |
| [regulated exocytosis](http://portal.genego.com/cgi/process.cgi?id=-1138359964) | 1,166E-16 | 7,180E-15 | Glycoprotein Ib-alpha, C3, HDL, HP/HB complex, Pre beta-1 HDL, HDL proteins, Plasminogen, Adult hemoglobin, HP, Albumin, APOA1, Large apoE-rich HDL, HPRG, Nascent HDL, Alpha 1-antitrypsin |
| [regulation of triglyceride metabolic process](http://portal.genego.com/cgi/process.cgi?id=-58120332) | 1,897E-16 | 1,126E-14 | C3, HDL, Pre beta-1 HDL, HDL proteins, APOE, APOA1, Large apoE-rich HDL, APOA4, Nascent HDL |
| [plasma lipoprotein particle assembly](http://portal.genego.com/cgi/process.cgi?id=-2129059101) | 1,979E-16 | 1,134E-14 | HDL, Pre beta-1 HDL, HDL proteins, APOE, APOA1, Large apoE-rich HDL, APOA4, Nascent HDL |
| [regulation of intestinal absorption](http://portal.genego.com/cgi/process.cgi?id=-132098421) | 2,581E-16 | 1,384E-14 | HDL, Pre beta-1 HDL, HDL proteins, APOA1, Large apoE-rich HDL, APOA4, Nascent HDL |
| [high-density lipoprotein particle clearance](http://portal.genego.com/cgi/process.cgi?id=-742302652) | 2,581E-16 | 1,384E-14 | HDL, Pre beta-1 HDL, HDL proteins, APOE, APOA1, Large apoE-rich HDL, Nascent HDL |
| [protein-lipid complex assembly](http://portal.genego.com/cgi/process.cgi?id=-418043738) | 3,556E-16 | 1,847E-14 | HDL, Pre beta-1 HDL, HDL proteins, APOE, APOA1, Large apoE-rich HDL, APOA4, Nascent HDL |
| [receptor-mediated endocytosis](http://portal.genego.com/cgi/process.cgi?id=-1416543536) | 4,407E-16 | 2,219E-14 | HDL, HP/HB complex, Pre beta-1 HDL, HDL proteins, Adult hemoglobin, APOE, HP, Albumin, APOA1, Large apoE-rich HDL, Alpha1-globin, Nascent HDL |
| [vitamin transport](http://portal.genego.com/cgi/process.cgi?id=-742239931) | 4,694E-16 | 2,295E-14 | RBP4, VDB, HDL, Pre beta-1 HDL, HDL proteins, APOA1, Large apoE-rich HDL, Nascent HDL |
| [regulation of plasma lipoprotein particle levels](http://portal.genego.com/cgi/process.cgi?id=-1231278842) | 5,335E-16 | 2,533E-14 | HDL, Pre beta-1 HDL, HDL proteins, APOE, Albumin, APOA1, Large apoE-rich HDL, APOA4, Nascent HDL |
| [detoxification](http://portal.genego.com/cgi/process.cgi?id=-285369399) | 5,998E-16 | 2,769E-14 | HDL, HP/HB complex, HDL proteins, Adult hemoglobin, APOE, HP, Albumin, Large apoE-rich HDL, Alpha1-globin, APOA4 |
| [exocytosis](http://portal.genego.com/cgi/process.cgi?id=-2018564155) | 6,899E-16 | 3,099E-14 | Glycoprotein Ib-alpha, C3, HDL, HP/HB complex, Pre beta-1 HDL, HDL proteins, Plasminogen, Adult hemoglobin, HP, Albumin, APOA1, Large apoE-rich HDL, HPRG, Nascent HDL, Alpha 1-antitrypsin |
| [positive regulation of lipoprotein lipase activity](http://portal.genego.com/cgi/process.cgi?id=-1009357498) | 7,321E-16 | 3,202E-14 | HDL, Pre beta-1 HDL, HDL proteins, APOA1, Large apoE-rich HDL, APOA4, Nascent HDL |
| [positive regulation of triglyceride lipase activity](http://portal.genego.com/cgi/process.cgi?id=-1455094295) | 9,286E-16 | 3,957E-14 | HDL, Pre beta-1 HDL, HDL proteins, APOA1, Large apoE-rich HDL, APOA4, Nascent HDL |
| [negative regulation of cell adhesion molecule production](http://portal.genego.com/cgi/process.cgi?id=-1340075745) | 9,577E-16 | 3,979E-14 | HDL, Pre beta-1 HDL, HDL proteins, APOA1, Large apoE-rich HDL, Nascent HDL |
| [regulation of phospholipid transport](http://portal.genego.com/cgi/process.cgi?id=-1912772461) | 1,169E-15 | 4,625E-14 | HDL, Pre beta-1 HDL, HDL proteins, APOE, APOA1, Large apoE-rich HDL, Nascent HDL |
| [positive regulation of phospholipid transport](http://portal.genego.com/cgi/process.cgi?id=-839398762) | 1,169E-15 | 4,625E-14 | HDL, Pre beta-1 HDL, HDL proteins, APOE, APOA1, Large apoE-rich HDL, Nascent HDL |
| [positive regulation of triglyceride catabolic process](http://portal.genego.com/cgi/process.cgi?id=-823428687) | 1,460E-15 | 5,552E-14 | HDL, Pre beta-1 HDL, HDL proteins, APOA1, Large apoE-rich HDL, APOA4, Nascent HDL |
| [intermembrane lipid transfer](http://portal.genego.com/cgi/process.cgi?id=-142453017) | 1,470E-15 | 5,552E-14 | HDL, Pre beta-1 HDL, HDL proteins, APOE, APOA1, Large apoE-rich HDL, APOA4, Nascent HDL |
| [sterol import](http://portal.genego.com/cgi/process.cgi?id=-1436893336) | 1,595E-15 | 5,641E-14 | HDL, Pre beta-1 HDL, HDL proteins, APOA1, Large apoE-rich HDL, Nascent HDL |
| [cholesterol import](http://portal.genego.com/cgi/process.cgi?id=-1510715940) | 1,595E-15 | 5,641E-14 | HDL, Pre beta-1 HDL, HDL proteins, APOA1, Large apoE-rich HDL, Nascent HDL |
| [negative regulation of cytokine secretion involved in immune response](http://portal.genego.com/cgi/process.cgi?id=-959421116) | 1,595E-15 | 5,641E-14 | HDL, Pre beta-1 HDL, HDL proteins, APOA1, Large apoE-rich HDL, Nascent HDL |
| [positive regulation of steroid metabolic process](http://portal.genego.com/cgi/process.cgi?id=-1630875698) | 1,653E-15 | 5,723E-14 | HDL, Pre beta-1 HDL, HDL proteins, APOE, APOA1, Large apoE-rich HDL, APOA4, Nascent HDL |
| [triglyceride homeostasis](http://portal.genego.com/cgi/process.cgi?id=-260316276) | 2,898E-15 | 9,633E-14 | HDL, Pre beta-1 HDL, HDL proteins, APOE, APOA1, Large apoE-rich HDL, APOA4, Nascent HDL |
| [acylglycerol homeostasis](http://portal.genego.com/cgi/process.cgi?id=-1774362140) | 2,898E-15 | 9,633E-14 | HDL, Pre beta-1 HDL, HDL proteins, APOE, APOA1, Large apoE-rich HDL, APOA4, Nascent HDL |

**Supplementary Figures**

**Figure S1.** Figure reporting (A) highly abundant and (B) lowly abundant proteins in Reduced FT3



