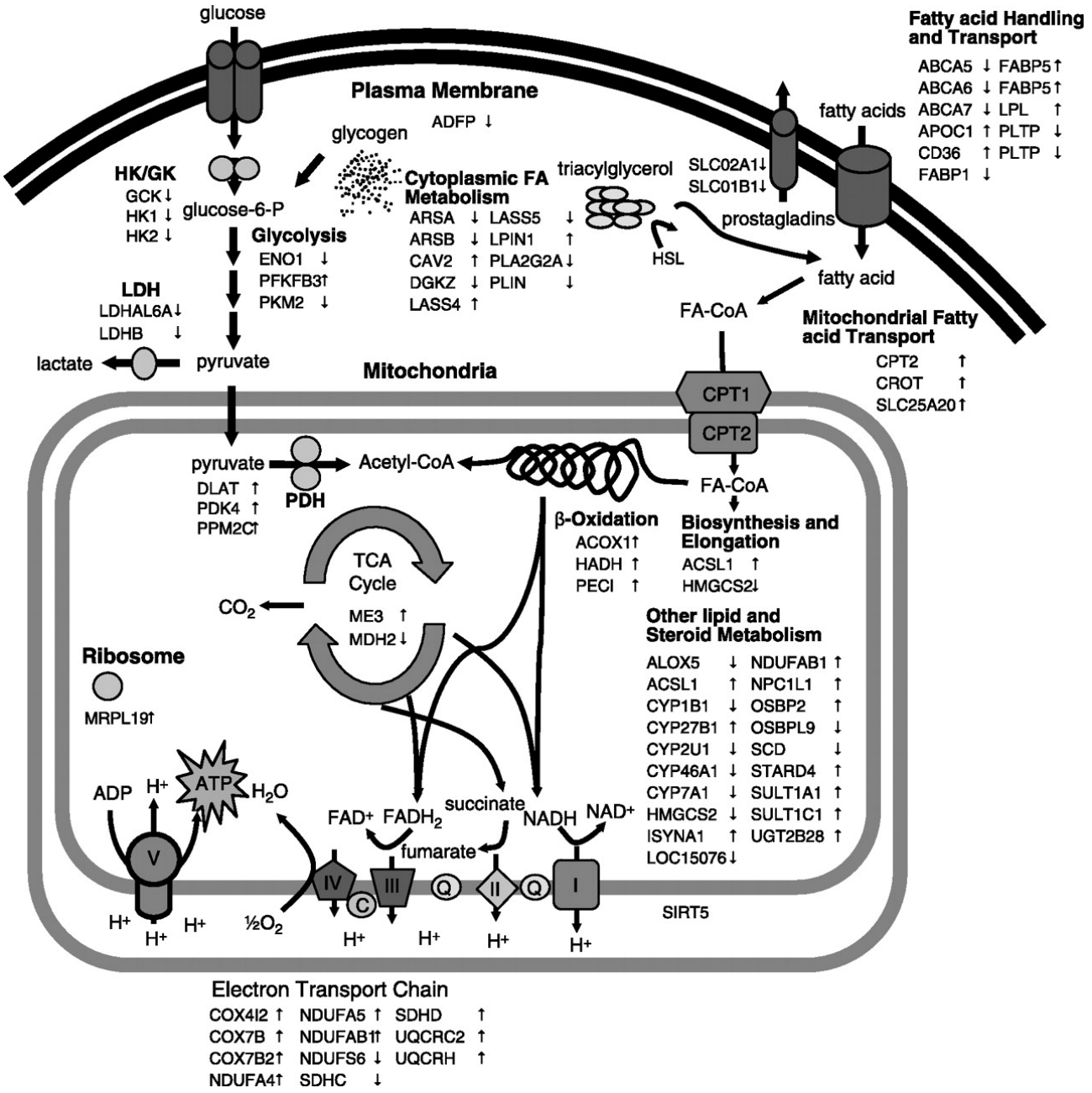
glucose
Plasma Membrane
ADFP ↓
glycogen
HK/GK
GCK↓
HK1 ↓
HK2 ↓
glucose-6-P
Glycolysis
ENO1 ↓
PFKFB3↑
PKM2 ↓
LDH
LDHAL6A↓
LDHB ↓
lactate
pyruvate
Cytoplasmic FA Metabolism
ARSA ↓ LASS5 ↓
ARSB ↓ LPIN1 ↑
CAV2 ↑ PLA2G2A↓
DGKZ ↓ PLIN ↓
LASS4 ↑
triacylglycerol
HSL
SLC02A1↓
SLC01B1↓
fatty acids
prostagladins
fatty acid
FA-CoA
Fatty acid Handling and Transport
ABCA5 ↓ FABP5↑
ABCA6 ↓ FABP5↑
ABCA7 ↓ LPL ↑
APOC1 ↑ PLTP ↓
CD36 ↑ PLTP ↓
FABP1 ↓
Mitochondrial Fatty acid Transport
CPT2 ↑
CROT ↑
SLC25A20↑
Mitochondria
CPT1
CPT2
pyruvate
DLAT ↑
PDK4 ↑
PPM2C↑
PDH
Acetyl-CoA
FA-CoA
β-Oxidation
ACOX1↑
HADH ↑
PECI ↑
Biosynthesis and Elongation
ACSL1 ↑
HMGCS2↓
TCA Cycle
CO2
ME3 ↑
MDH2↓
Other lipid and Steroid Metabolism
ALOX5 ↓ NDUFAB1 ↑
ACSL1 ↑ NPC1L1 ↑
CYP1B1 ↓ OSBP2 ↑
CYP27B1 ↑ OSBPL9 ↓
CYP2U1 ↓ SCD ↓
CYP46A1 ↓ STARD4 ↑
CYP7A1 ↓ SULT1A1 ↑
HMGCS2 ↓ SULT1C1 ↑
ISYNA1 ↑ UGT2B28 ↑
LOC15076↓
Ribosome
MRPL19↑
ADP
H+
ATP
H2O
V
FAD+
FADH2
succinate
fumarate
NADH
NAD+
IV
C
III
Q
II
Q
I
½O2
H+
SIRT5
Electron Transport Chain
COX4I2 ↑ NDUFA5 ↑ SDHD ↑
COX7B ↑ NDUFAB1↑ UQCRC2 ↑
COX7B2↑ NDUFS6 ↓ UQCRH ↑
NDUFA4↑ SDHC ↓