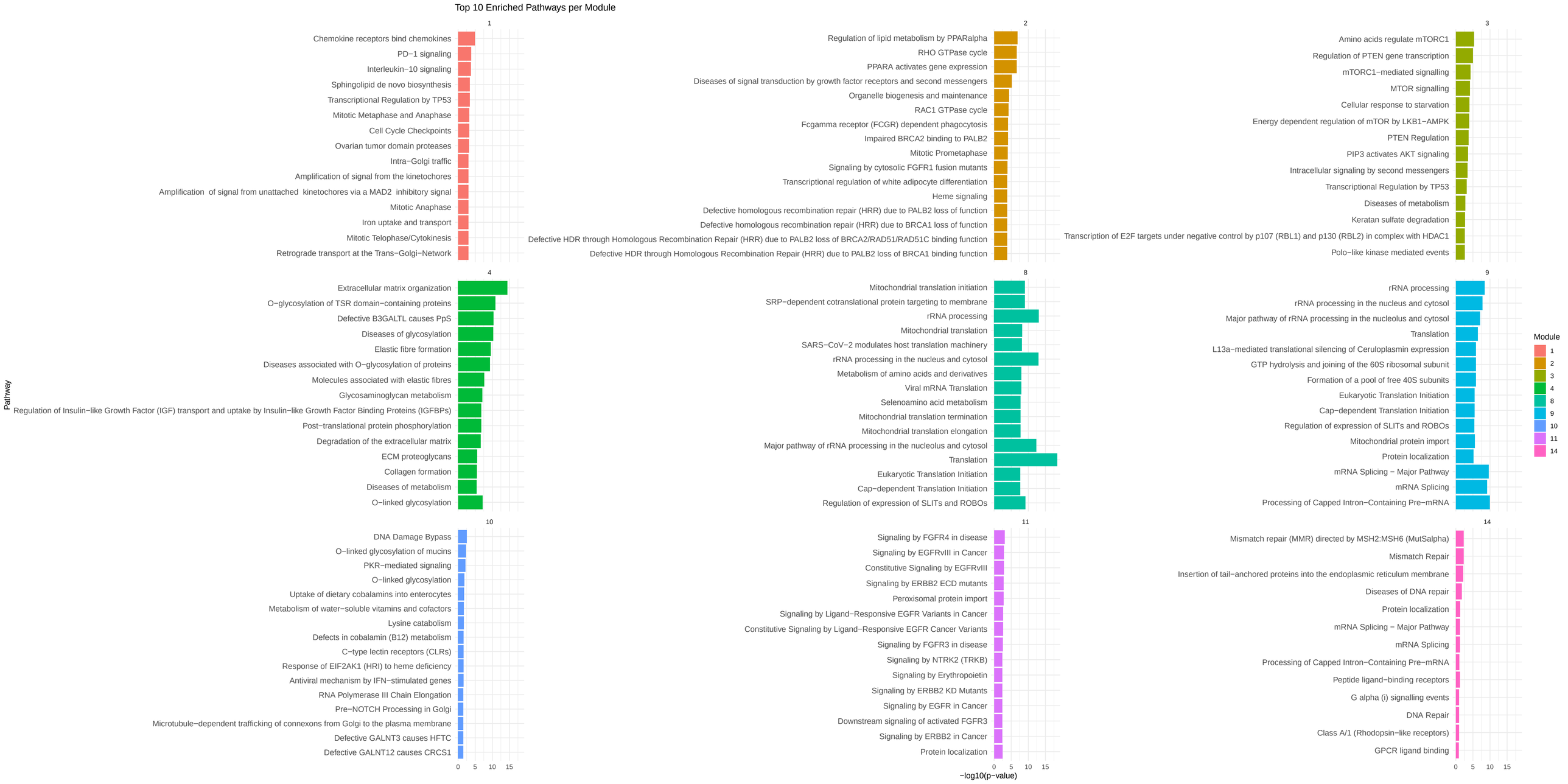
Top 10 Enriched Pathways per Module
1
Chemokine receptors bind chemokines
PD−1 signaling
Interleukin−10 signaling
Sphingolipid de novo biosynthesis
Transcriptional Regulation by TP53
Mitotic Metaphase and Anaphase
Cell Cycle Checkpoints
Ovarian tumor domain proteases
Intra−Golgi traffic
Amplification of signal from the kinetochores
Amplification of signal from unattached kinetochores via a MAD2 inhibitory signal
Mitotic Anaphase
Iron uptake and transport
Mitotic Telophase/Cytokinesis
Retrograde transport at the Trans−Golgi−Network
2
Regulation of lipid metabolism by PPARalpha
RHO GTPase cycle
PPARA activates gene expression
Diseases of signal transduction by growth factor receptors and second messengers
Organelle biogenesis and maintenance
RAC1 GTPase cycle
Fcgamma receptor (FCGR) dependent phagocytosis
Impaired BRCA2 binding to PALB2
Mitotic Prometaphase
Signaling by cytosolic FGFR1 fusion mutants
Transcriptional regulation of white adipocyte differentiation
Heme signaling
Defective homologous recombination repair (HRR) due to PALB2 loss of function
Defective homologous recombination repair (HRR) due to BRCA1 loss of function
Defective HDR through Homologous Recombination Repair (HRR) due to PALB2 loss of BRCA2/RAD51/RAD51C binding function
Defective HDR through Homologous Recombination Repair (HRR) due to PALB2 loss of BRCA1 binding function
3
Amino acids regulate mTORC1
Regulation of PTEN gene transcription
mTORC1−mediated signalling
MTOR signalling
Cellular response to starvation
Energy dependent regulation of mTOR by LKB1−AMPK
PTEN Regulation
PIP3 activates AKT signaling
Intracellular signaling by second messengers
Transcriptional Regulation by TP53
Diseases of metabolism
Keratan sulfate degradation
Transcription of E2F targets under negative control by p107 (RBL1) and p130 (RBL2) in complex with HDAC1
Polo−like kinase mediated events
4
Extracellular matrix organization
O−glycosylation of TSR domain−containing proteins
Defective B3GALTL causes PpS
Diseases of glycosylation
Elastic fibre formation
Diseases associated with O−glycosylation of proteins
Molecules associated with elastic fibres
Glycosaminoglycan metabolism
Regulation of Insulin−like Growth Factor (IGF) transport and uptake by Insulin−like Growth Factor Binding Proteins (IGFBPs)
Post−translational protein phosphorylation
Degradation of the extracellular matrix
ECM proteoglycans
Collagen formation
Diseases of metabolism
O−linked glycosylation
8
Mitochondrial translation initiation
SRP−dependent cotranslational protein targeting to membrane
rRNA processing
Mitochondrial translation
SARS−CoV−2 modulates host translation machinery
rRNA processing in the nucleus and cytosol
Metabolism of amino acids and derivatives
Viral mRNA Translation
Selenoamino acid metabolism
Mitochondrial translation termination
Mitochondrial translation elongation
Major pathway of rRNA processing in the nucleolus and cytosol
Translation
Eukaryotic Translation Initiation
Cap−dependent Translation Initiation
Regulation of expression of SLITs and ROBOs
9
rRNA processing
rRNA processing in the nucleus and cytosol
Major pathway of rRNA processing in the nucleolus and cytosol
Translation
L13a−mediated translational silencing of Ceruloplasmin expression
GTP hydrolysis and joining of the 60S ribosomal subunit
Formation of a pool of free 40S subunits
Eukaryotic Translation Initiation
Cap−dependent Translation Initiation
Regulation of expression of SLITs and ROBOs
Mitochondrial protein import
Protein localization
mRNA Splicing − Major Pathway
mRNA Splicing
Processing of Capped Intron−Containing Pre−mRNA
10
DNA Damage Bypass
O−linked glycosylation of mucins
PKR−mediated signaling
O−linked glycosylation
Uptake of dietary cobalamins into enterocytes
Metabolism of water−soluble vitamins and cofactors
Lysine catabolism
Defects in cobalamin (B12) metabolism
C−type lectin receptors (CLRs)
Response of EIF2AK1 (HRI) to heme deficiency
Antiviral mechanism by IFN−stimulated genes
RNA Polymerase III Chain Elongation
Pre−NOTCH Processing in Golgi
Microtubule−dependent trafficking of connexons from Golgi to the plasma membrane
Defective GALNT3 causes HFTC
Defective GALNT12 causes CRCS1
0
5
10
15
11
Signaling by FGFR4 in disease
Signaling by EGFRvIII in Cancer
Constitutive Signaling by EGFRvIII
Signaling by ERBB2 ECD mutants
Peroxisomal protein import
Signaling by Ligand−Responsive EGFR Variants in Cancer
Constitutive Signaling by Ligand−Responsive EGFR Cancer Variants
Signaling by FGFR3 in disease
Signaling by NTRK2 (TRKB)
Signaling by Erythropoietin
Signaling by ERBB2 KD Mutants
Signaling by EGFR in Cancer
Downstream signaling of activated FGFR3
Signaling by ERBB2 in Cancer
Protein localization
0
5
10
15
14
Mismatch repair (MMR) directed by MSH2:MSH6 (MutSalpha)
Mismatch Repair
Insertion of tail−anchored proteins into the endoplasmic reticulum membrane
Diseases of DNA repair
Protein localization
mRNA Splicing − Major Pathway
mRNA Splicing
Processing of Capped Intron−Containing Pre−mRNA
Peptide ligand−binding receptors
G alpha (i) signalling events
DNA Repair
Class A/1 (Rhodopsin−like receptors)
GPCR ligand binding
0
5
10
15
Pathway
−log10(p−value)
Module
1
2
3
4
8
9
10
11
14