rRNA processing in the nucleus and cytosol

rRNA processing

Major pathway of rRNA processing in the nucleolus and cytosol

Activation of ATR in response to replication stress

Activation of the pre-replicative complex

DNA Replication

G1/S Transition DNA Replication Pre-Initiation

Assembly of the pre-replicative complex

Synthesis of DNA

S Phase Orc1 removal from chromatin Mitotic G1-G1/S phases

Regulation of mRNA stability by proteins that bind AU-rich elements

Cell Cycle Checkpoints

Translation

Mitochondrial translation termination

Mitochondrial translation elongation

Mitochondrial translation

mRNA Splicing – Minor Pathway

mRNA Splicing - Major Pathway

mRNA Splicing

size

150

2e-08

p.adjust

Processing of Capped Intron-Containing Pre-mRNA

RNA Polymerase II Transcription Termination

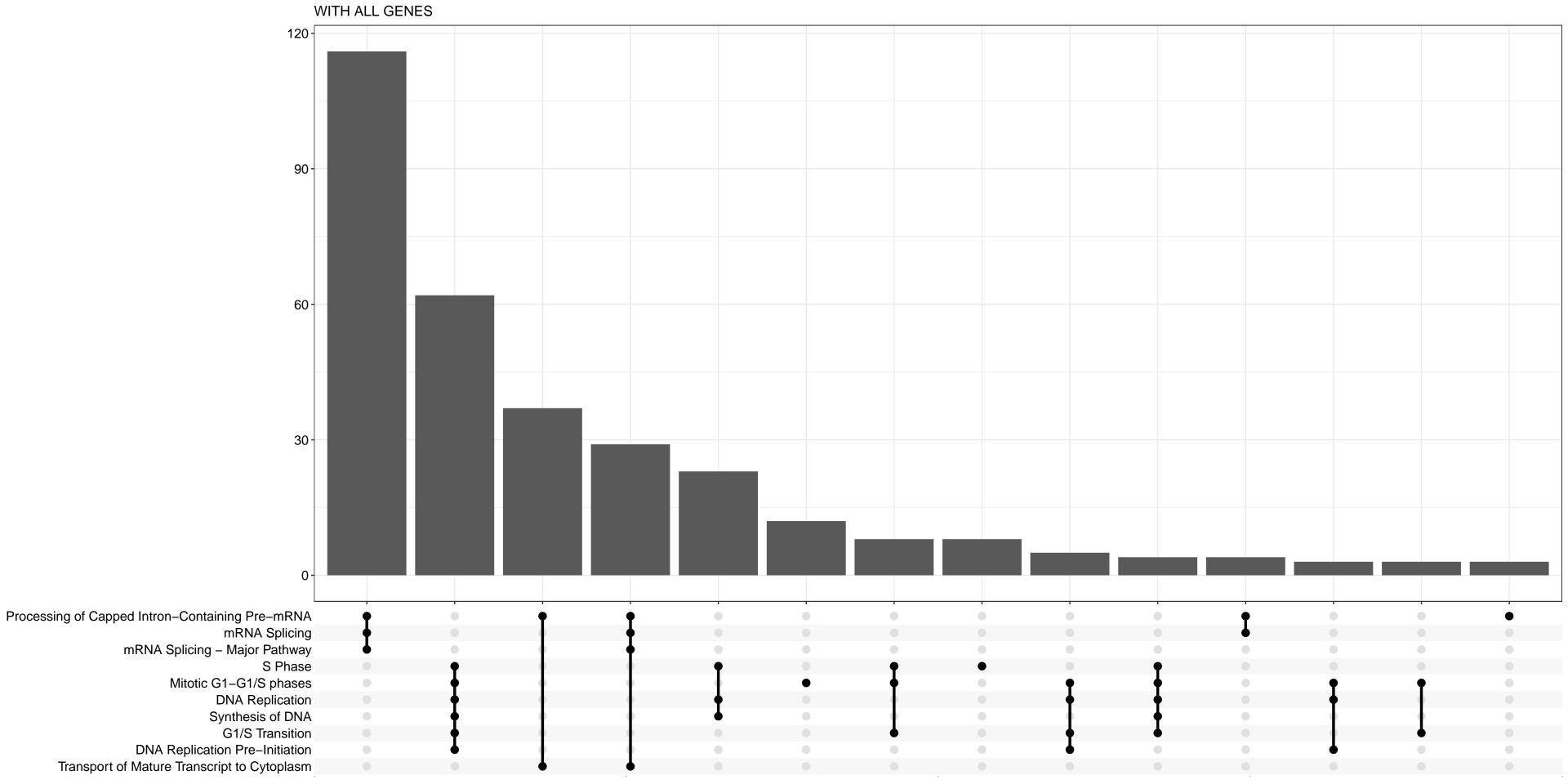
Transport of Mature mRNA derived from an Intron-Containing Transcript mRNA 3 - end processing

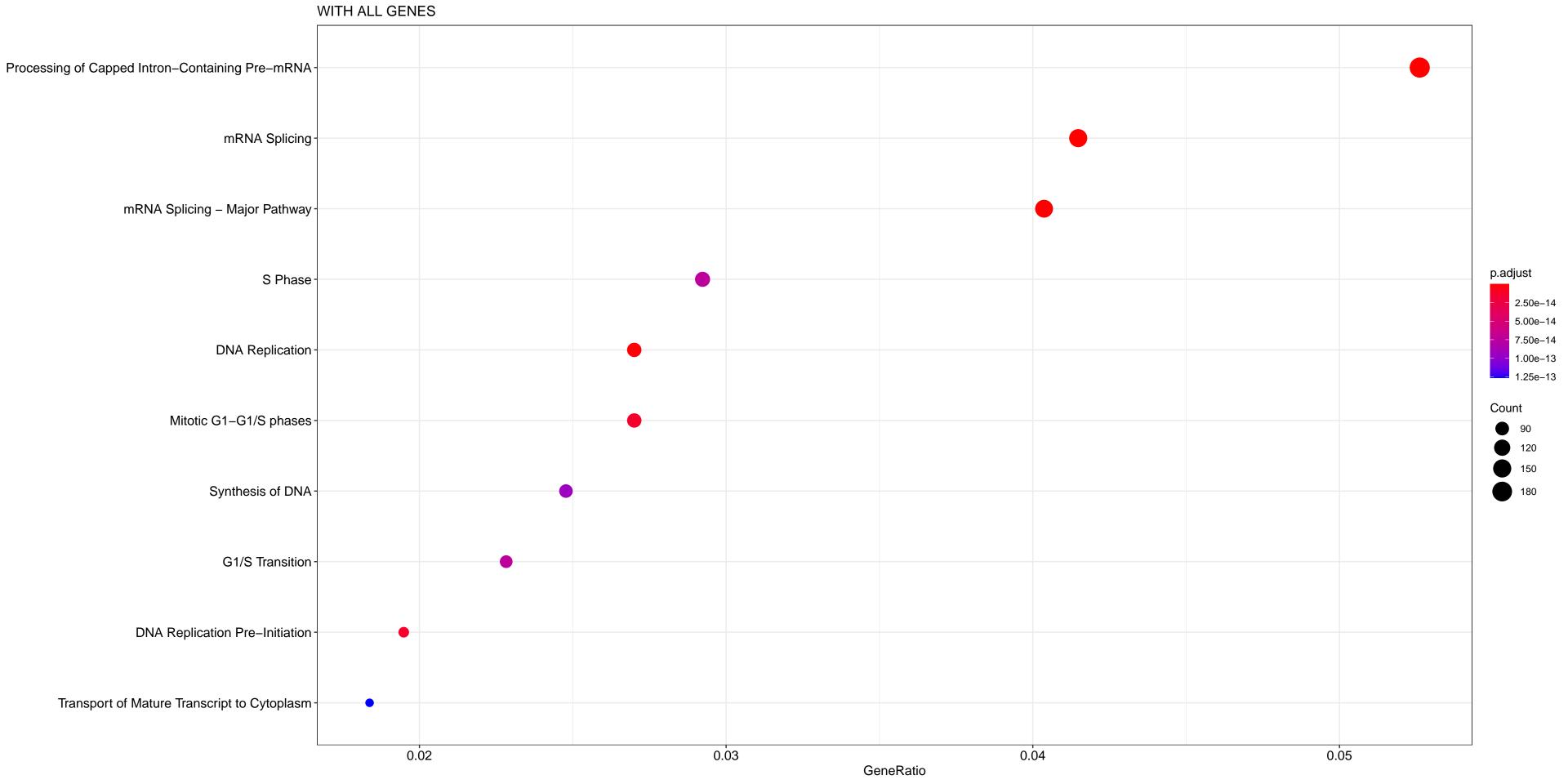
Transport of Mature Transcript to Cytoplasm

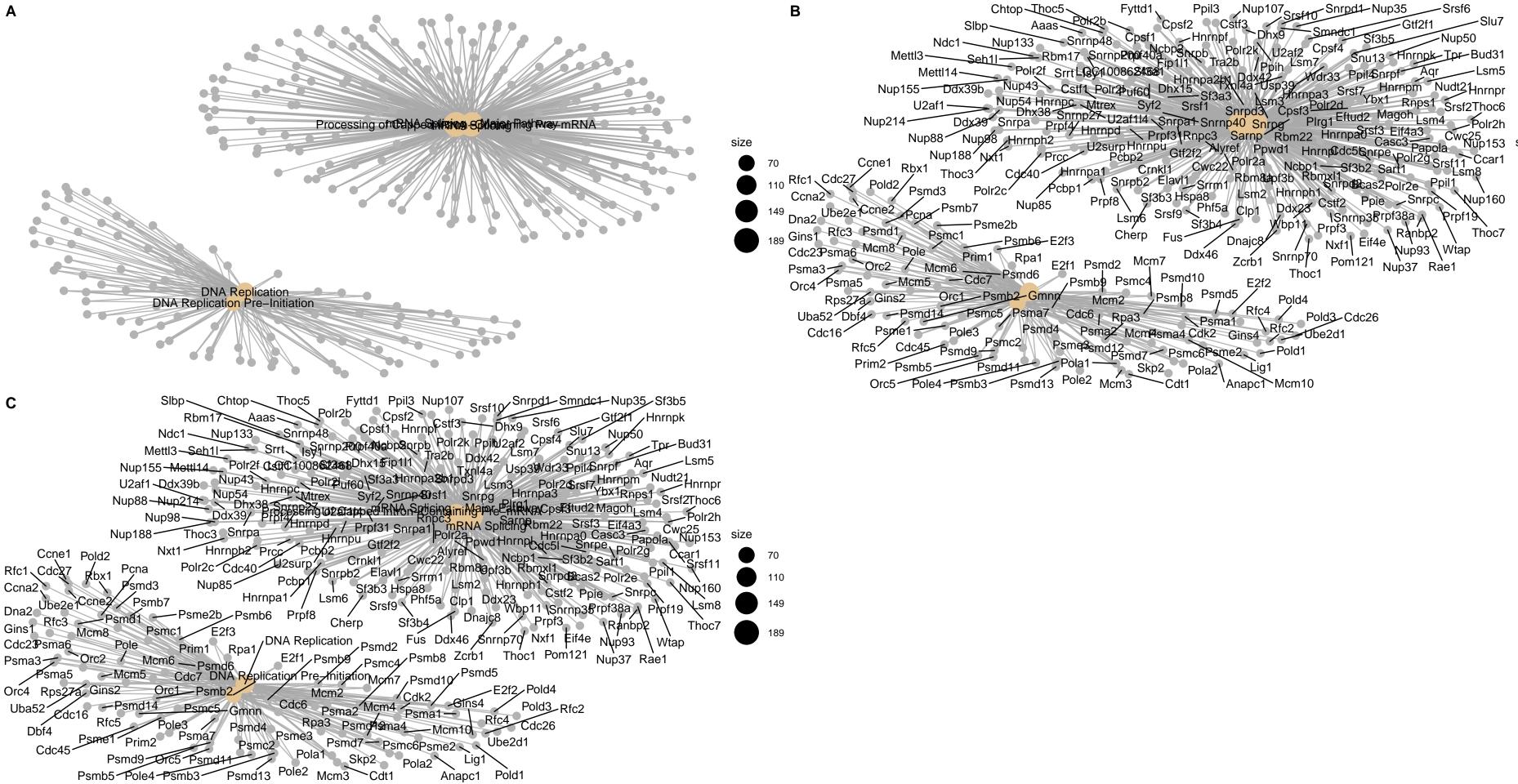
Gap-filling DNA repair synthesis and ligation in TC-NER

Transcription-Coupled Nucleotide Excision Repair (TC-NER)

Nucleotide Excision Repair







Interconversion of nucleotide di- and triphosphates

Resolution of D-loop Structures through Holliday Junction Intermediates

Resolution of D-Loop Structures HDR through Homologous Recombination (HRR)

Resolution of D-loop Structures through Synthesis-Dependent Strand Annealing (SDSA)

Presynaptic phase of homologous DNA pairing and strand exchange

Homology Directed Repair

DNA Double Strand Break Repair

DNA Repair

Homologous DNA Pairing and Strand Exchange

HDR through Homologous Recombination (HRR) or Single Strand Annealing (SSA)

G2/M-Checkpoints

Cell Cycle Checkpoints

G1/S Transition

Synthesis of DNA Shase

Mitotic G1–G1/S phases Activation of the pre–replicative complex

Orc1 removal from chromatin Assembly of the pre-replicative complex

Switching of origins to a post_replicative state _____DNA Replication

Activation of ATR in response to replication stress DNA Replication Pre-Initiation

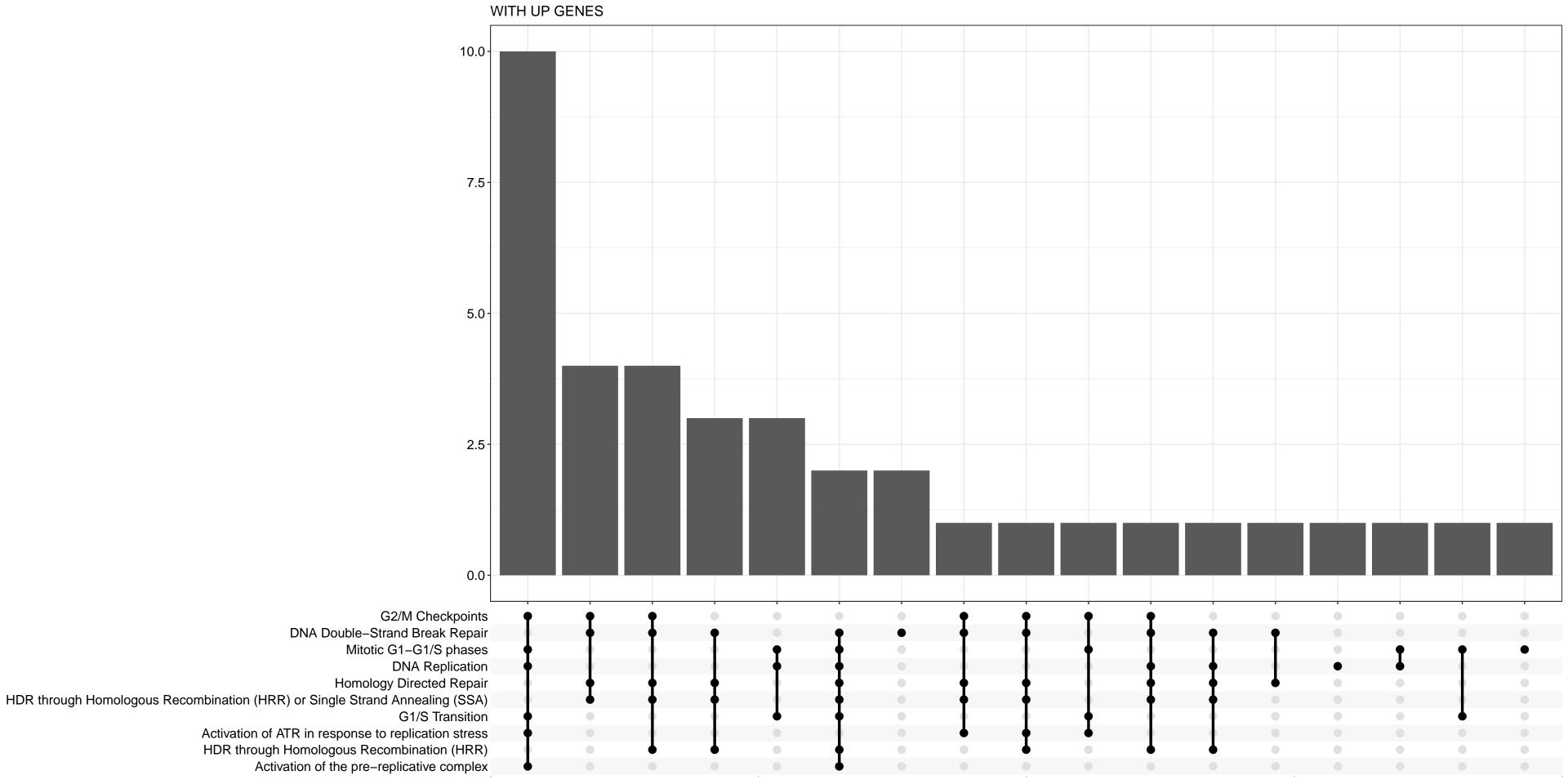
Major pathway of rRNA processing in the nucleolus and cytosol

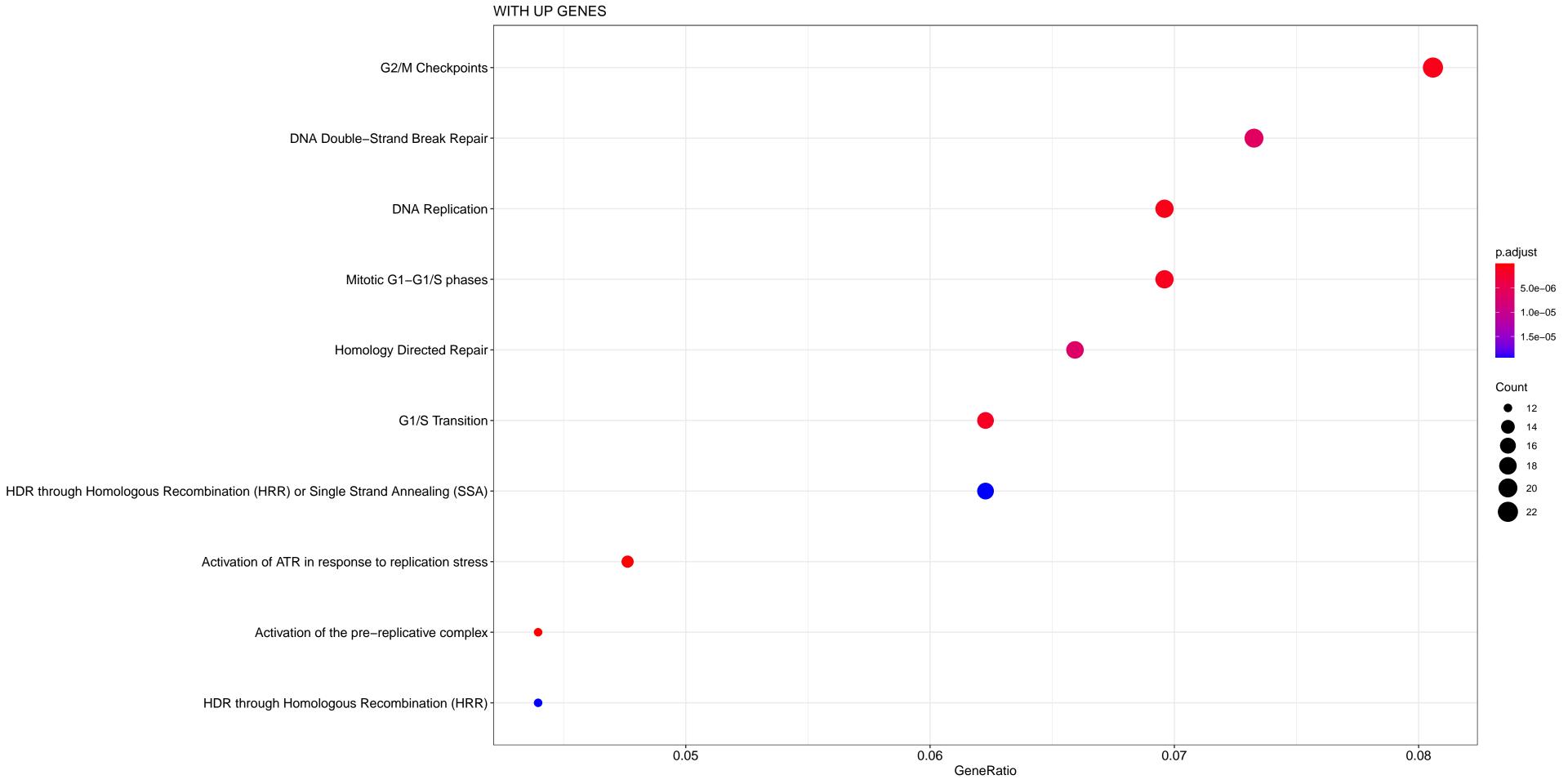
rRNA processing in the nucleus and cytosol

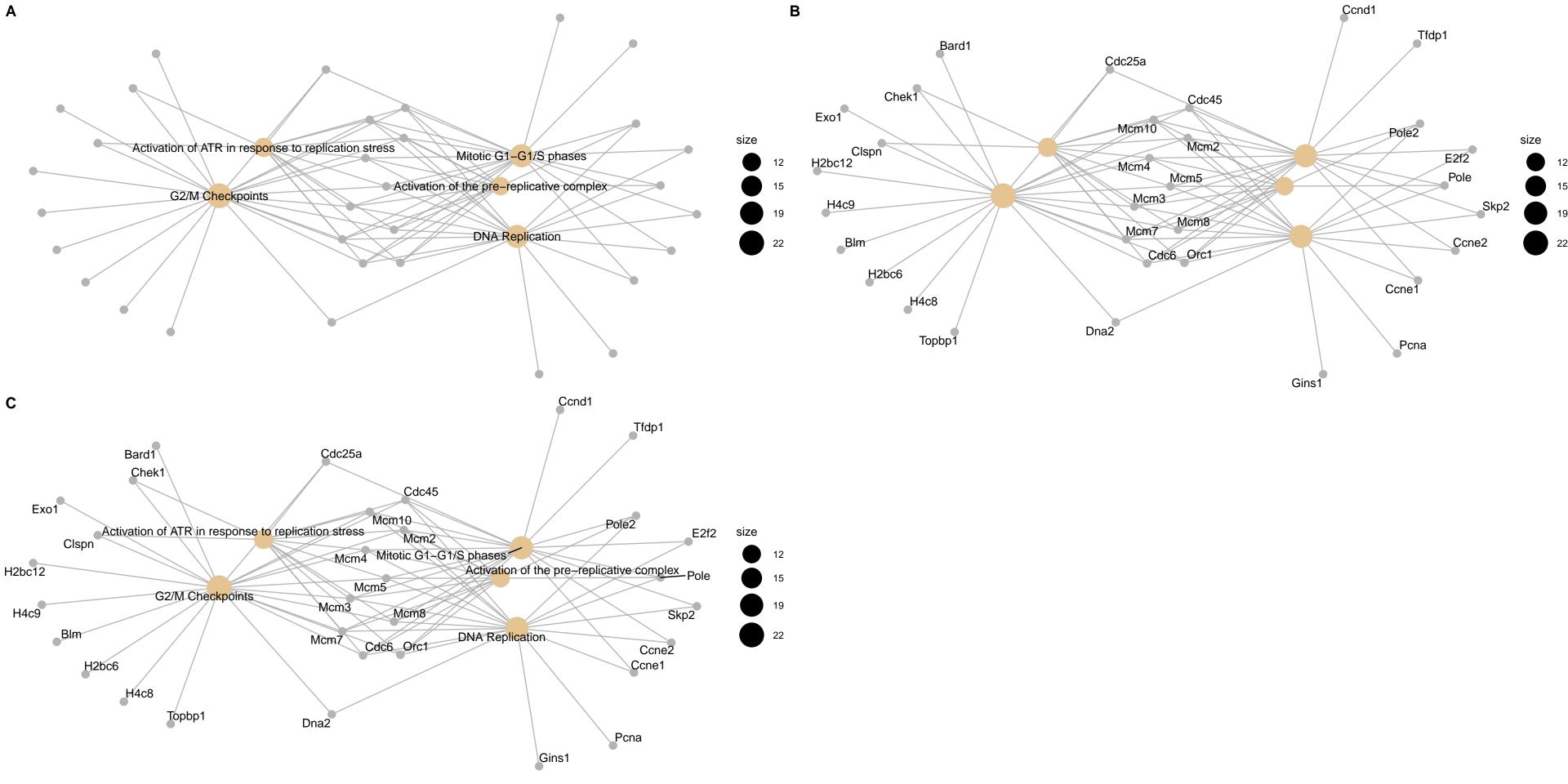
rRNA processing

size

- 0.001 - 0.002 - 0.003 - 0.004 - 0.005







Platelet degranulation GPVI-mediated activation cascade Platelet activation, signaling and aggregation Cell surface interactions at the vascular wall Antigen activates B Cell Receptor (BCR) leading to generation of second messengers Response to elevated platelet cytosolic Ca2+ O-glycosylation of TSR domain-containing proteins Molecules associated with elastic fibres Class A/1 (Rhodopsin-like receptors) Elastic fibre formation DAP12 interactions DAP12 signaling MET activates PTK2 signaling Immunoregulatory interactions between a Lymphoid and a non-Lymphoid cell Extracellular matrix organization NCAM1 interactions Degradation of the extracellular matrix Collagen degradation Collagen biosynthesis and modifying enzymes ECM proteoglycans Assembly of collagen fibrils and other multimeric structures Integrin cell surface interactions Non-integrin membrane-ECM interactions Collagen chain trimerization Regulation of TLR by endogenous ligand Signaling by PDGF Collagen formation Crosslinking of collagen fibrils Toll-like Receptor Cascades

Trafficking and processing of endosomal TLR

size

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0.001

0.003

