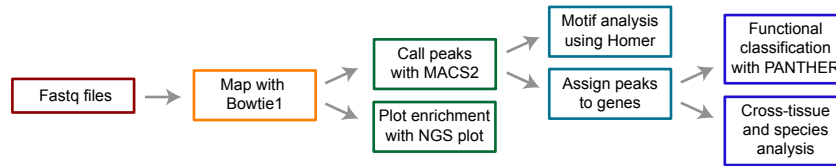


Figure S1

A

| Reference | PMID | Factor | Species | Cell type | Accession | Mapped Reads | Passed QC? |
|---------------------|----------|-------------|-------------------|--|-----------|--------------|------------|
| Webb et al. | 23891001 | FOXO3 | Mouse | Adult NPCs | GSE48336 | 12,702,983 | Yes |
| Ochiai et al. | 22267219 | FOXO1 | Mouse | <i>IRF-4,8^{-/-}</i> pre-B cells | GSE35024 | 45,382,078 | Yes |
| Kim et al. | 23932570 | FOXO1 | Mouse | CD8+ T-cells | GSE46944 | 9,949,662 | Yes |
| Ouyang et al. | 23135404 | FOXO1 | Mouse | nTreg | GSE40657 | 16,328,867 | Yes |
| Litvak et al. | 22982991 | FOXO3 | Mouse | Unstimulated macrophages | GSE37052 | 5,694,391 | No |
| Lin et al. | 20543837 | FOXO1 | Mouse | Rag1 KO pro-B cells | GSE21978 | 16,392,076 | No |
| Riedel et al. | 23604319 | DAF-16::GFP | <i>C. elegans</i> | Whole worm | GSE15567 | 19,379,002 | Yes |
| modEncode | - | DAF-16::GFP | <i>C. elegans</i> | Whole worm | GSE15567 | 3,123,508 | Yes |
| Bai et al. | 24244197 | dFOXO | <i>Drosophila</i> | <i>chico</i> heterozygotes | GSE44686 | 35,627,907 | Yes |
| Bai et al. | 24244197 | dFOXO | <i>Drosophila</i> | Adults with ablated IPCs | GSE44686 | 35,690,140 | Yes |
| Eijkelenboom et al. | 24360957 | FOXO3-ER | Human | DLD1 cells | GSE35486 | 13,302,980 | No |

B

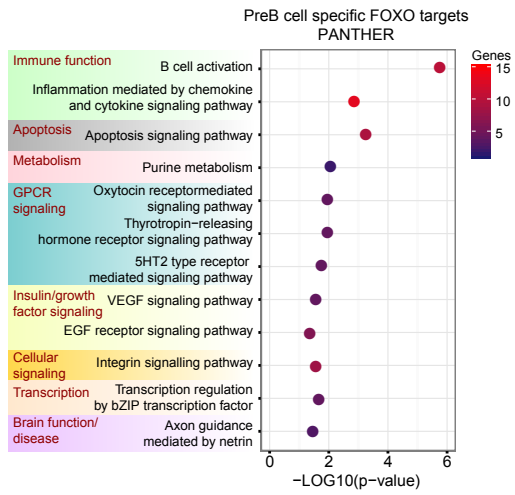


C

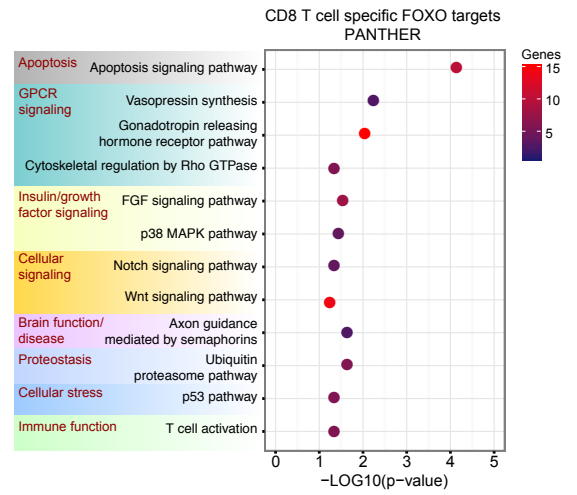
| Cell type | Factor | MACS peaks | MACS q-value | Target genes | Motif | % Targets with motif | p-value |
|---------------------------------------|-------------|------------|--------------|--------------|-------|----------------------|-------------------------|
| NPCs | FOXO3 | 22132 | 0.001 | 4278 | | 36.12 | 1 x 10 ⁻³¹⁰¹ |
| CD8+ T-cells | FOXO1 | 8224 | 0.1 | 3162 | | 31.34 | 1 x 10 ⁻⁴⁸⁵ |
| pre-B cells | FOXO1 | 14020 | 0.001 | 1651 | | 42.48 | 1 x 10 ⁻¹⁹⁰⁹ |
| Treg cells | FOXO1 | 6209 | 0.1 | 2926 | | 31.63 | 1 x 10 ⁻⁴⁰⁴ |
| <i>C. elegans</i> Wild type | DAF-16::GFP | 11711 | 0.001 | 7189 | | 54.89 | 1 x 10 ⁻⁶¹¹ |
| <i>C. elegans daf-2</i> | DAF-16::GFP | 6434 | 0.1 | 4478 | | 36.73 | 1 x 10 ⁻¹⁹⁴ |
| <i>Drosophila chico</i> heterozygotes | dFOXO | 169 | 0.1 | 151 | | 14.20 | 1 x 10 ⁻¹⁸ |
| <i>Drosophila</i> IPC ablation | dFOXO | 203 | 0.1 | 251 | | 46.31 | 1 x 10 ⁻⁸⁷ |
| Human DLD1 cells | FOXO3-ER | 2850 | 0.01 | 3092 | | 63.72 | 1 x 10 ⁻⁴⁸⁰ |

Figure S2

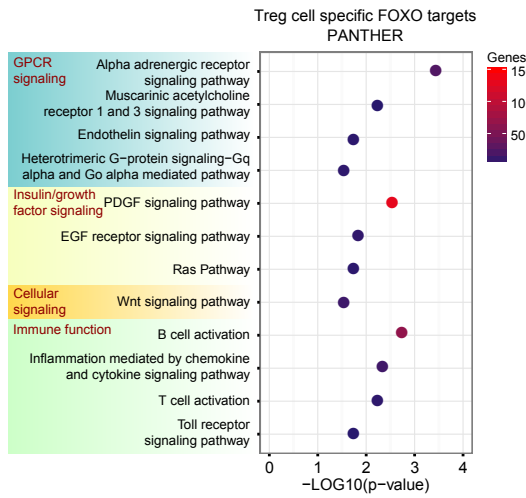
A



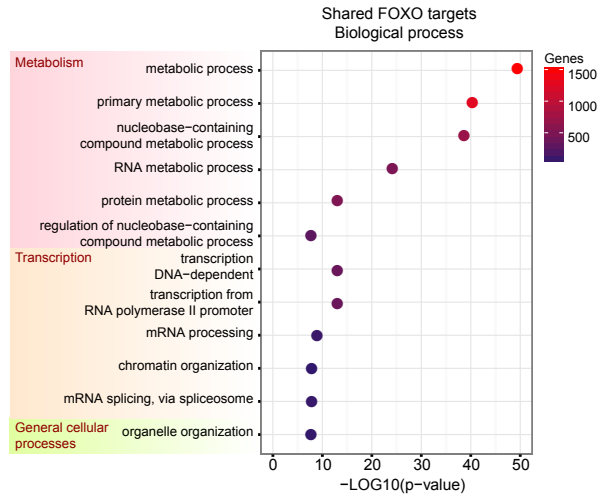
B



C



D



E

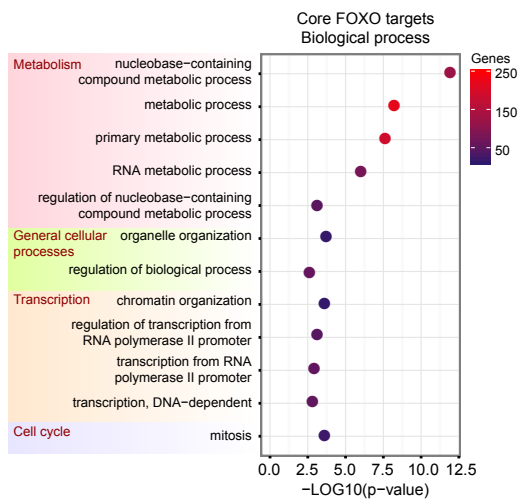
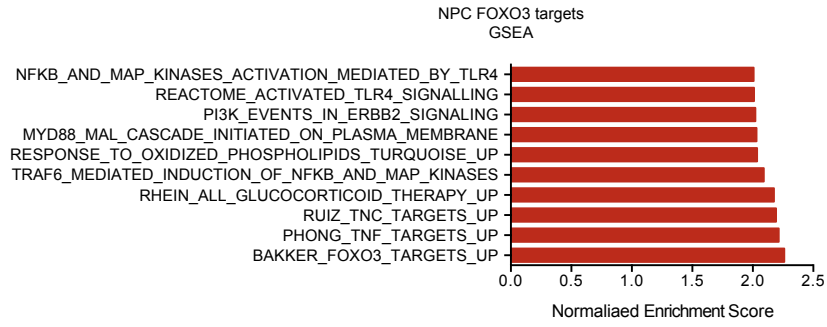
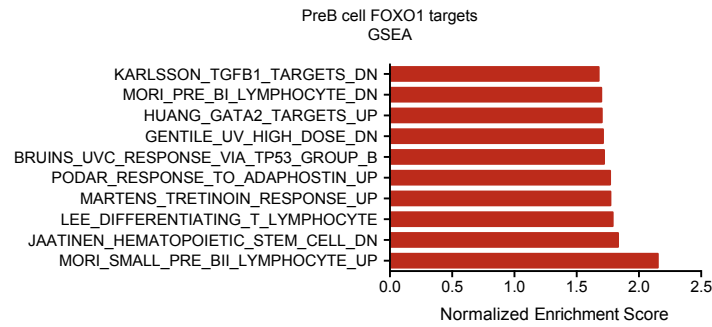


Figure S3

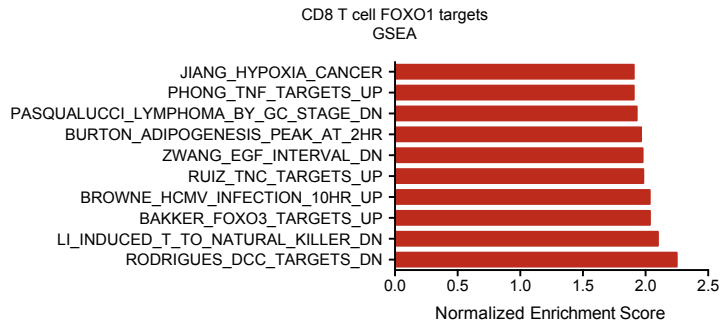
A



B



C



D

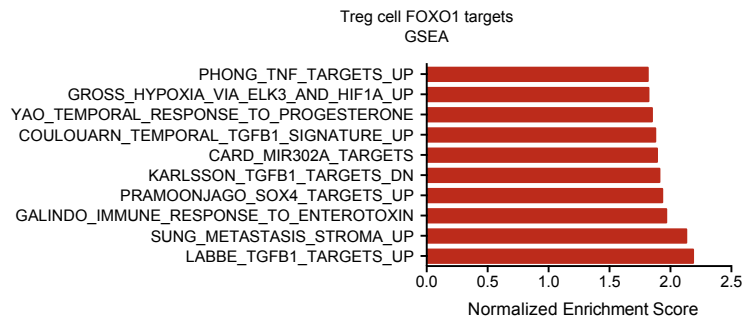


Figure S4

FOXO targets that functionally regulate aging

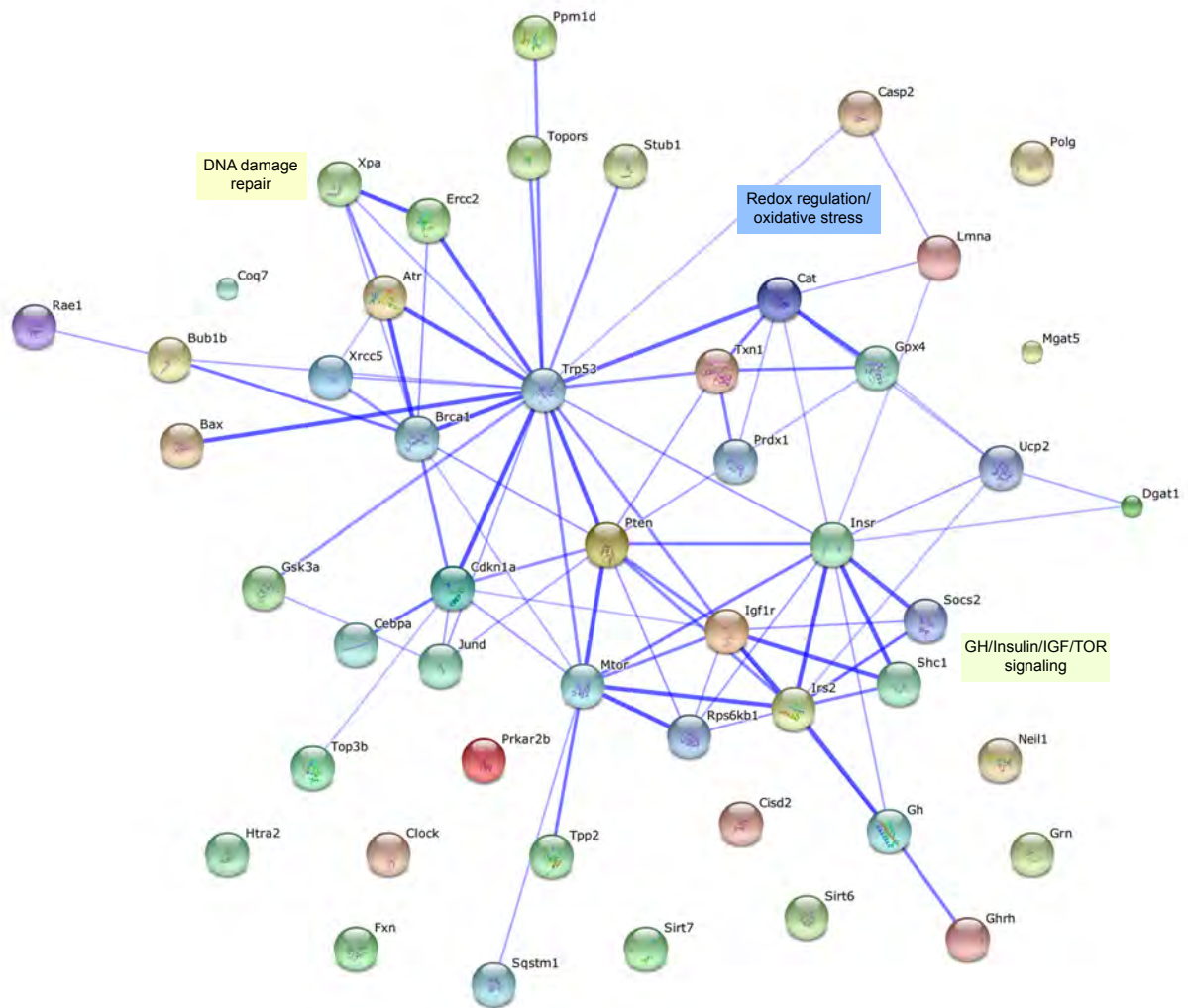


Figure S5

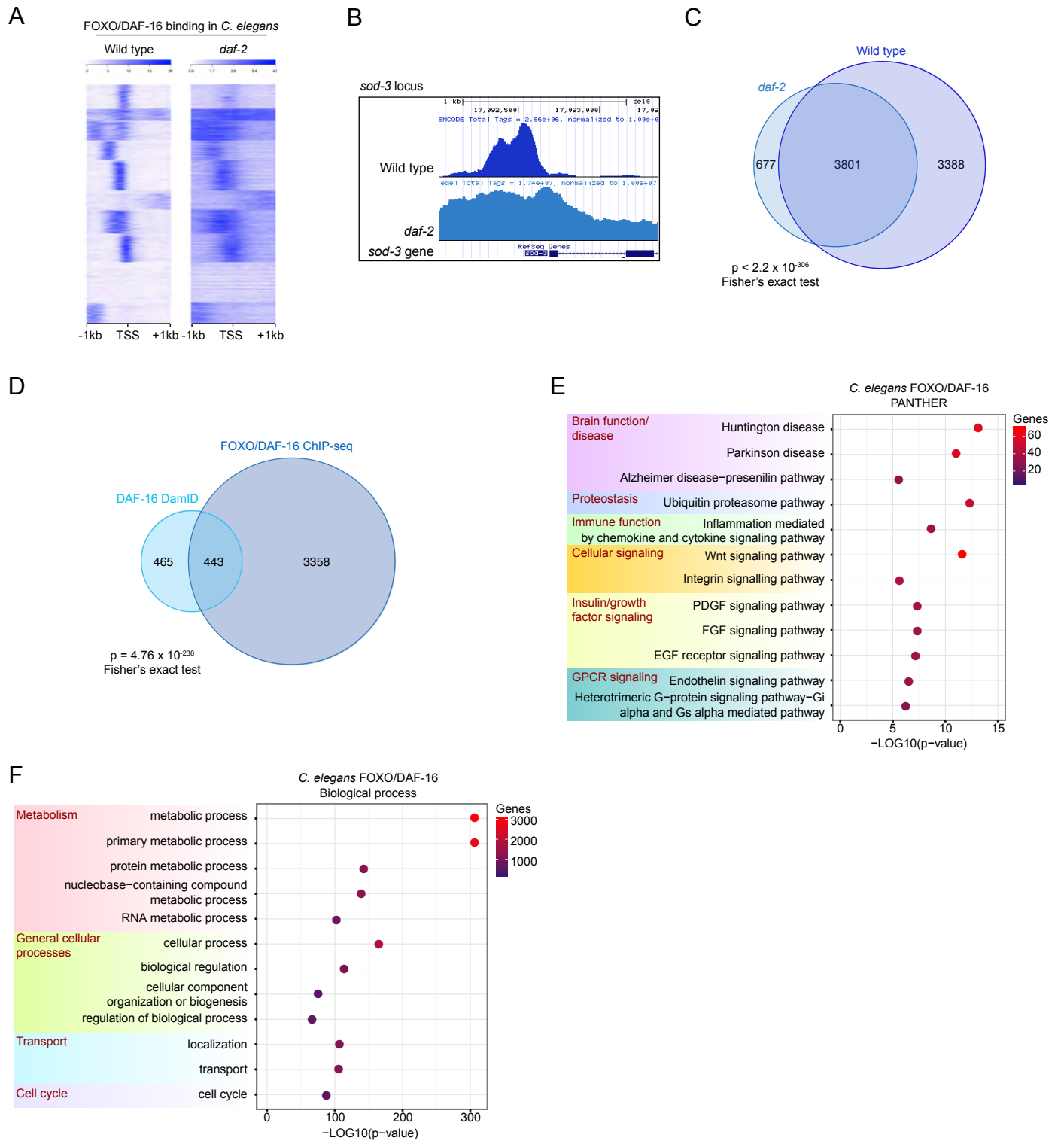
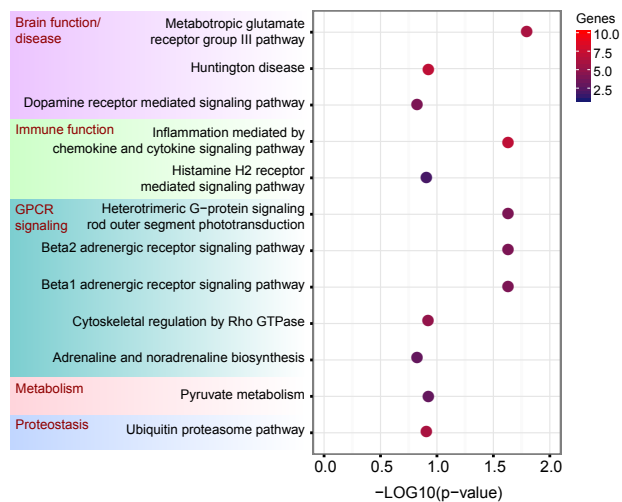


Figure S6

A

C. elegans FOXO/DAF-16 targets
bound only in *daf-2* mutants
PANTHER



B

C. elegans FOXO/DAF-16 targets
bound only in *daf-2* mutants
Biological process

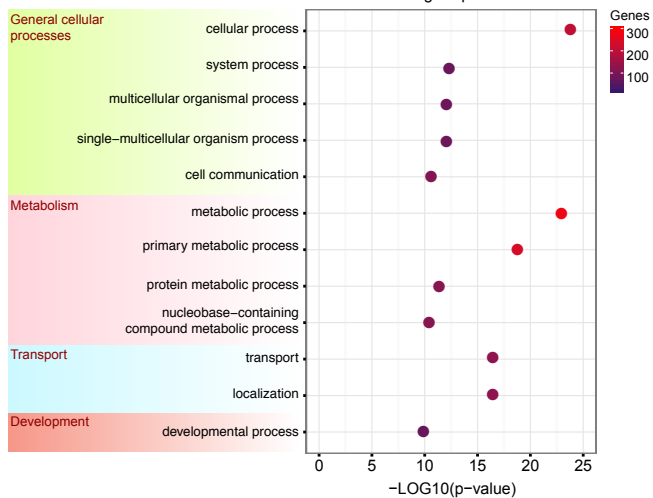


Figure S7

FOXO targets that functionally regulate aging in mouse

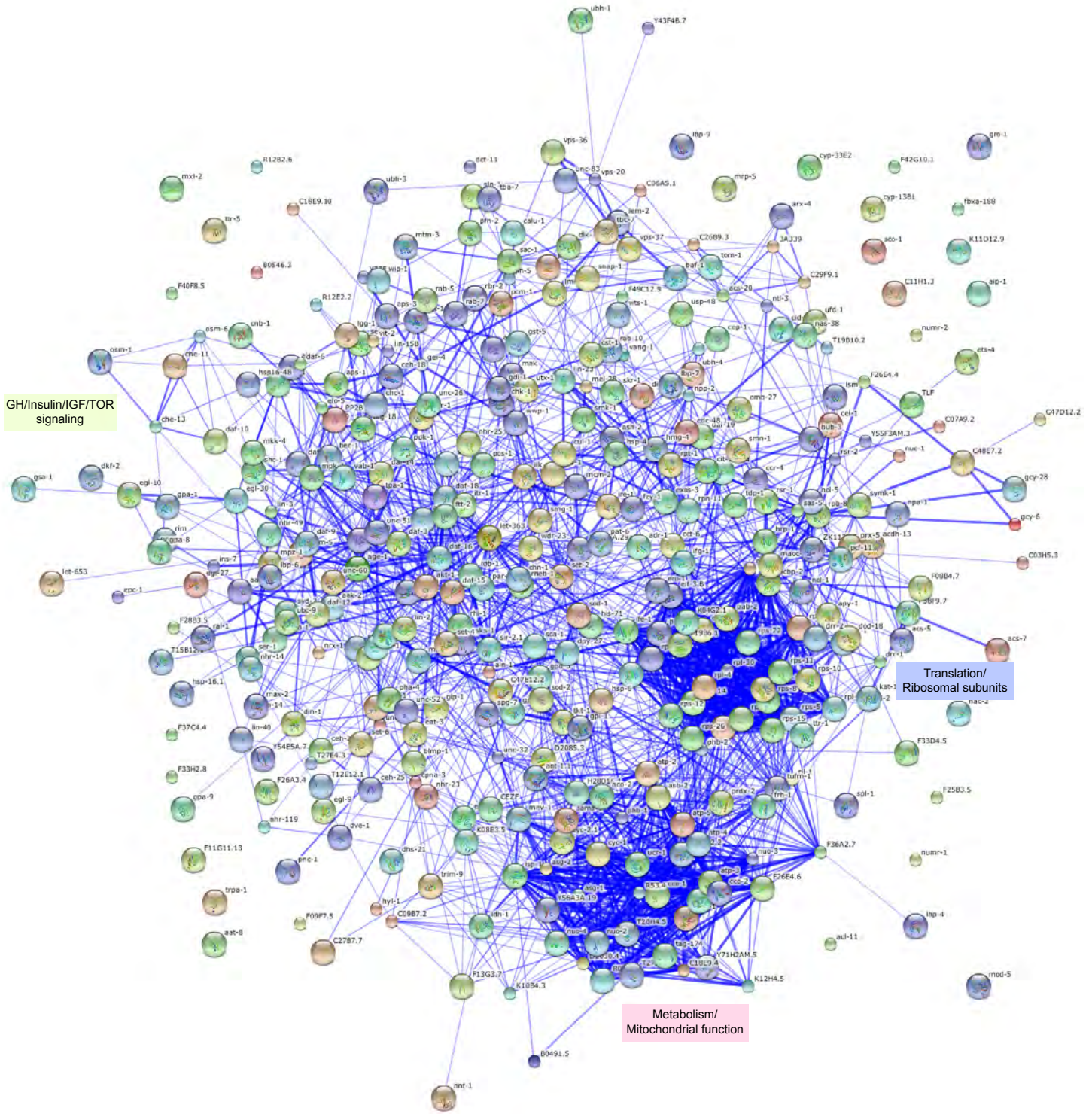


Figure S8

Conserved (mouse-worm) FOXO binding at functional aging regulators in *C. elegans*

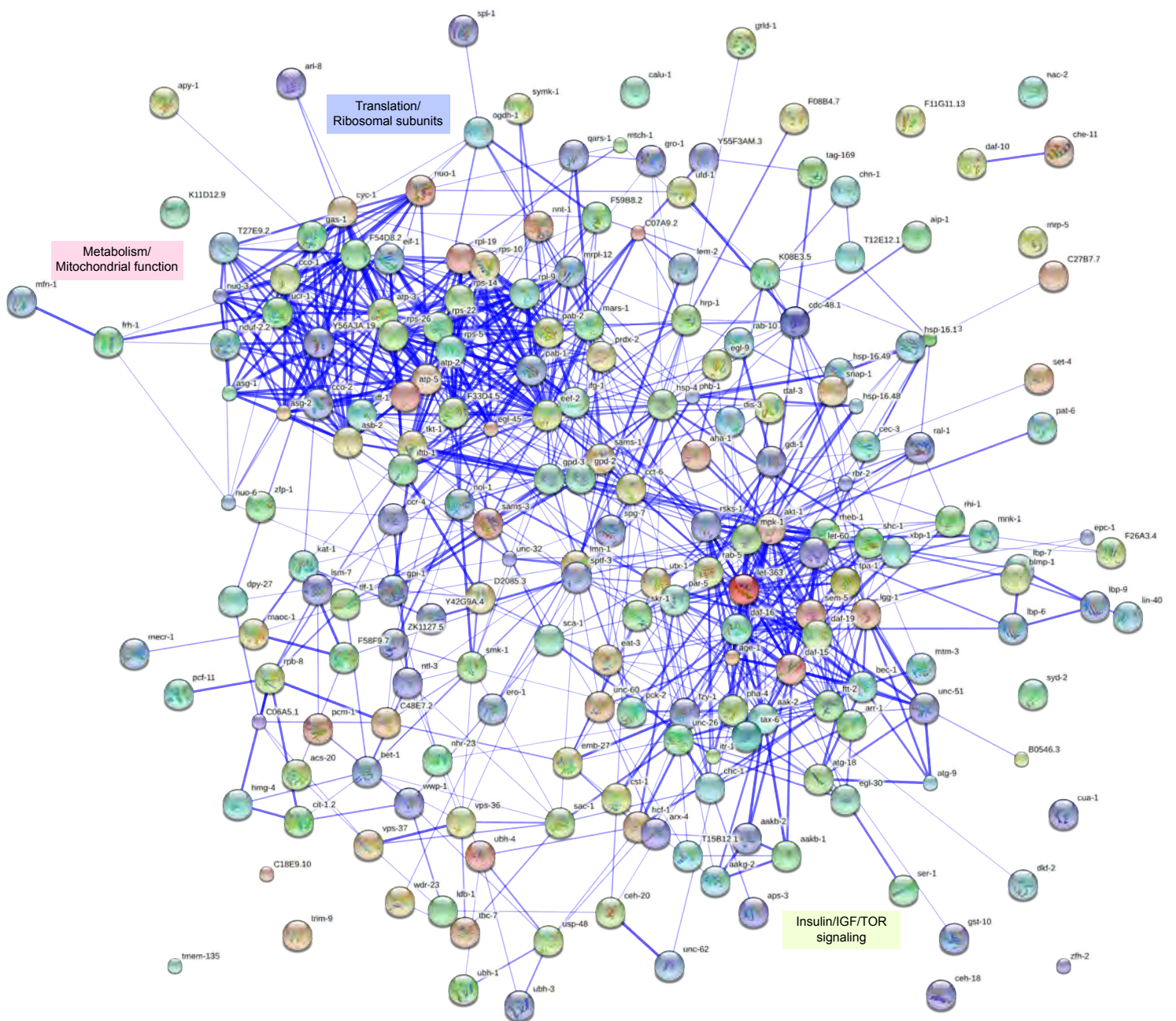


Figure S9

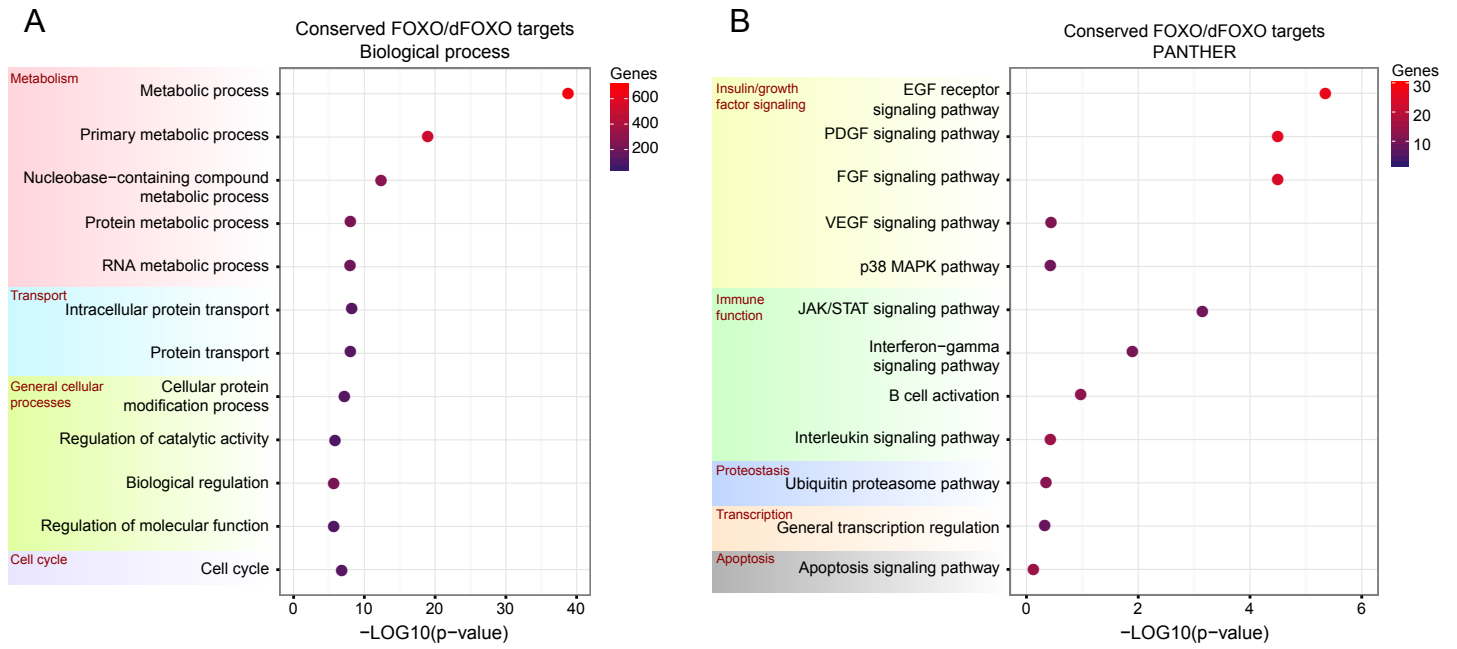


Figure S10

Network of FOXO/DAF-16
target genes that change in expression with age in *C. elegans*

