

Human co-expression network analysis for strong 1-1-1 orthologs

DW

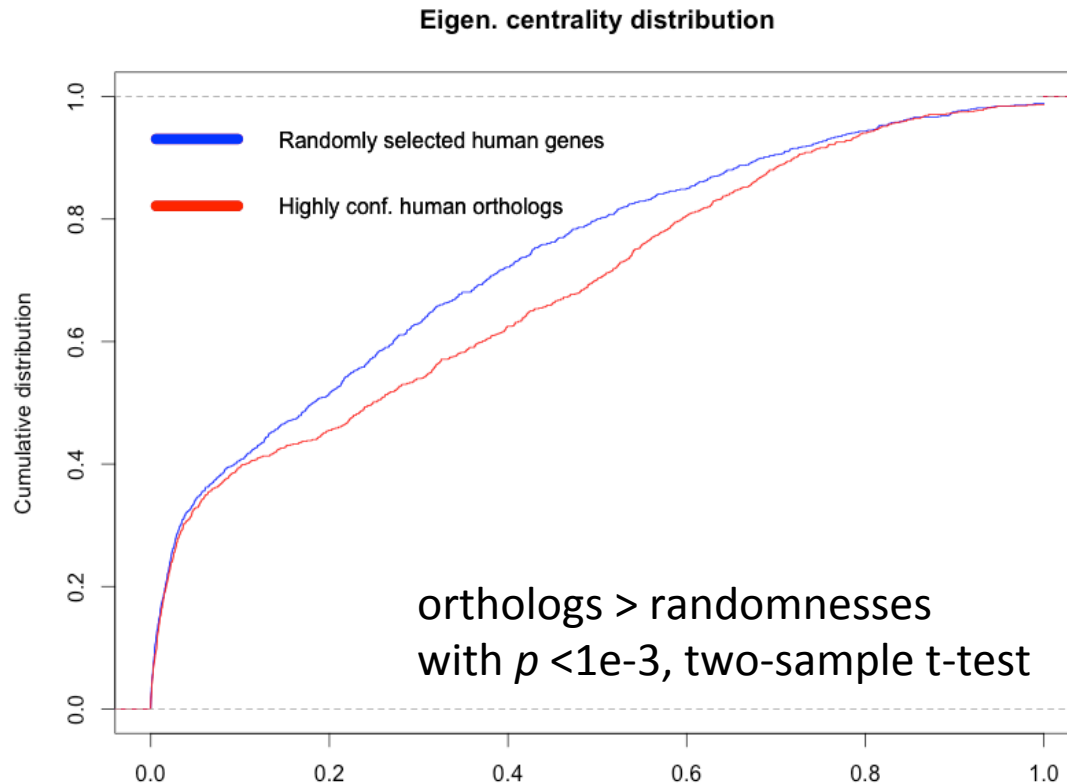
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Data

- **Identification of genes periodically expressed in the human cell cycle and their expression in tumors (show today)**
 - Whitfield ML, et al. (2002). *Mol Biol Cell* 13(6):1977-2000
 - Cell Cycle - HeLa S3, Thymidine-Nocodazole Block
 - 0, 2, 4,..., 36 hours, 19 samples
- **A Transcriptional Profile of Aging in the Human Kidney**
 - Kim Lab in Stanford, *PLoS Biol* 2004 2(12):e427
 - 584 age-regulated genes, only 18 (3%) in strong 1-1-1 orthologs
- **Transcriptional Profiling of Aging in Human Muscle Reveals a Common Aging Signature**
 - Kim Lab in Stanford, *PLoS Genet* 2006 Jul;2(7):e115
- **Aging and Gene Expression in the Primate Brain**
 - Eisen Lab in Berkeley, *PLoS Biol* 2005 3(9): e274
- **Gene regulation and DNA damage in the ageing human brain**
 - Yankner Lab in Harvard, *Nature* 429, 883-891 (24 June 2004)

1k highly confident orthologs vs. 1k randomnnesses



Human cell cycle data

Strong orthologs: 465 unclustered genes

Randoms: >540 unclustered genes