**Embryonic-specific gene clusters (1, 5 & 6)**

* NETWORK 1
  - 11 FG
  - 24 AN

* NETWORK 2
  - 10 FG
  - 25 AN

* NETWORK 3
  - 13 FG
  - 21 AN

* NETWORK 4
  - 6 FG
  - 29 AN

* NETWORK 5
  - 10 FG
  - 24 AN

* NETWORK 6
  - 6 FG
  - 28 AN

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**Top three biological functions or diseases**

- Cellular development
- Organismal development
- Cellular growth & proliferation

**Canonical pathways**

- Wnt/beta-catenin signaling
- P53 signaling
- Tight junction signaling pathways

**Known human neurological disorders**

- Nil

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**Adult-specific gene clusters (4, 8 & 10)**

**Top three biological functions or diseases**

- Nervous system development & function
- Neurological disease
- Cell morphology

**Canonical pathways**

- Synaptic long term potentiation
- Calcium signaling
- B cell receptor signaling
- cAMP-mediated signaling
- GM-CSF signaling
- Amyotrophic Lateral Sclerosis signaling
- Synaptic long term depression
- G-protein coupled receptor signaling
- Xenobiotic metabolism signaling pathways

**Known human neurological disorders**

- Mbp - Genetic susceptibility to multiple sclerosis [OMIM:126200]
- Plp1 - Pelizaeus-Merzbacher disease [OMIM:312080]
- Sncb - dementia with Lewy bodies [OMIM:127750]
- Tspan7 - X-linked 58 mental retardation [OMIM:300210]

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**Gene-switching clusters (2 & 7)**

**Top three biological functions or diseases**

- Cell morphology
- Cellular disease
- Amino acid metabolism

**Canonical pathways**

- Amyloid processing
- Aryl hydrocarbon receptor signaling
- Cell cycle G2/M DNA damage checkpoint regulation pathways

**Known human neurological disorders**

- Ctss - ceroid lipofuscinosis neuronal, 10 [OMIM:610127]
- App - Alzheimer disease [OMIM:104300]
- Atp7a - Menkes disease [OMIM:309400] & cutis laxa, X-linked [OMIM:304150]
- Clcn2 - epilepsy [OMIM:606904, 607628 & 607631]
- Hprt1 - Lesch-Nyhan syndrome [OMIM:300322]