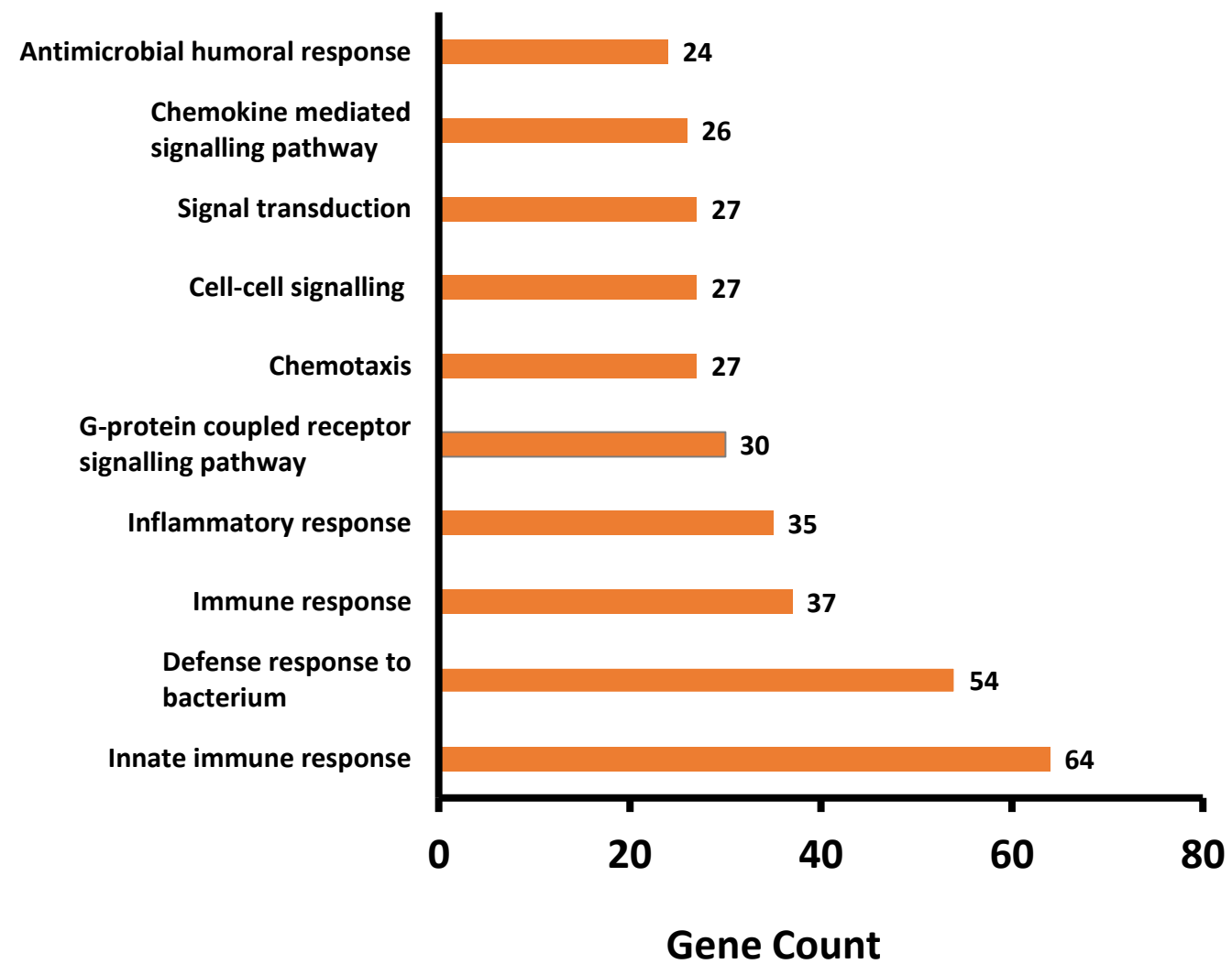
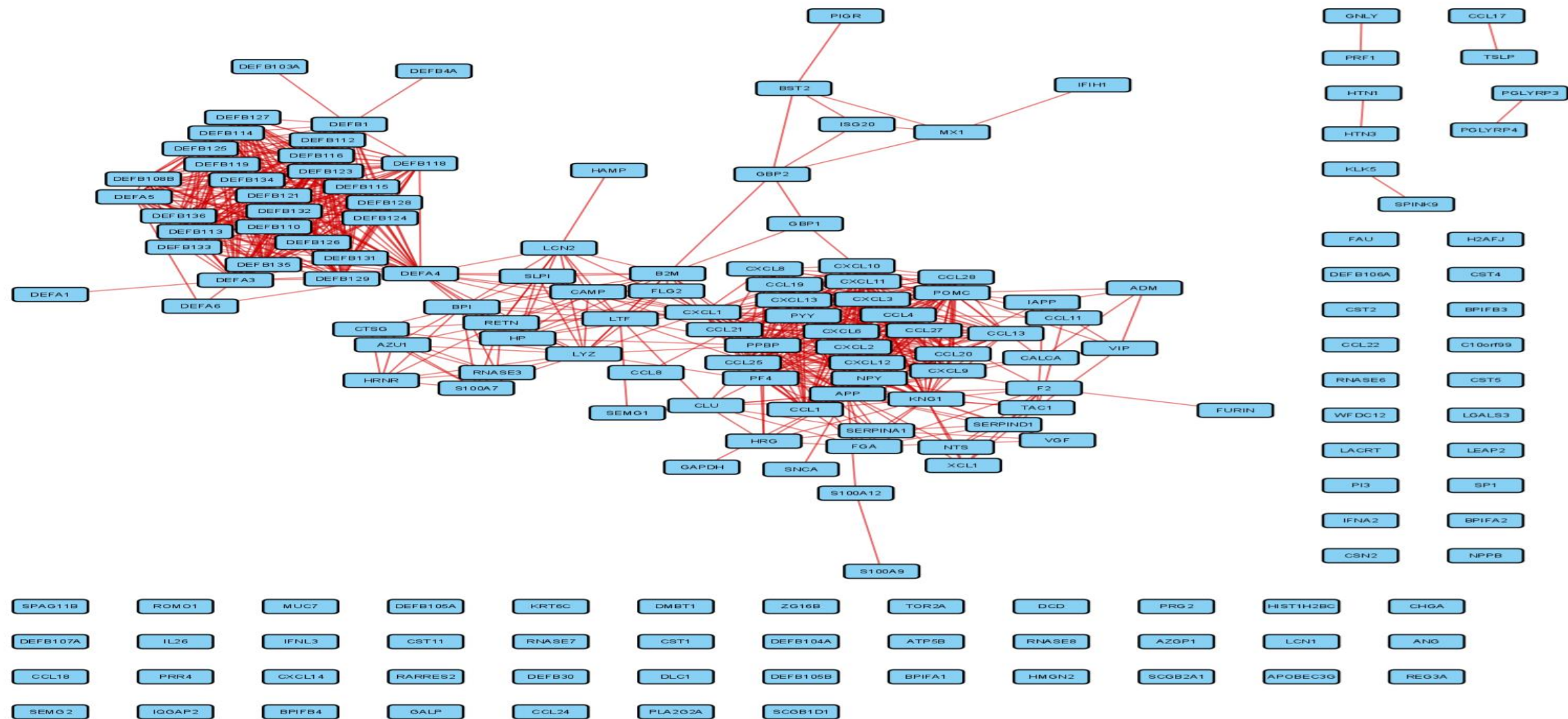


**Figure S1: High resolution images of the interaction networks involving human AMPs.** **A.** Enriched top 10 GO terms in case of AMPs present in UDAMP Database. The enriched GO terms are shown on the "y" axis, while the gene counts on the "x" axis. **B.** Protein-protein interaction (PPI) network. Each rectangle represents a protein and the line represents the interactions. **C.** Gene interaction network (GIN). Circles represent a gene/protein and the lines indicate interactions. The lines with arrow represent activation, blocking lines represent inhibition, simple lines represent protein-protein interaction. Line colour indicates the type of interaction: green colour refers to activation, red colour to inhibition, blue colour binding, whereas yellow colour shows co-expression. On all panels the proteins are labelled with their gene name.

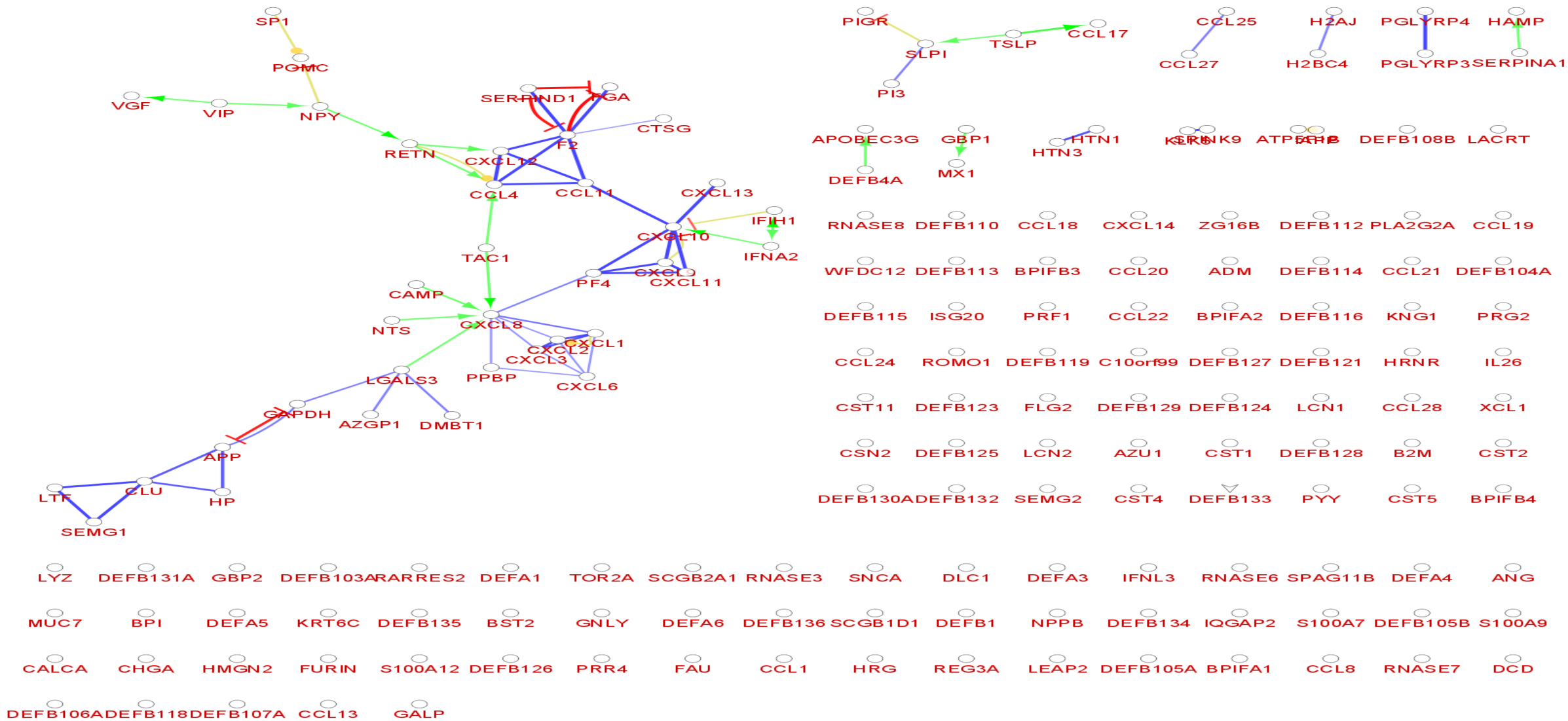
A



B

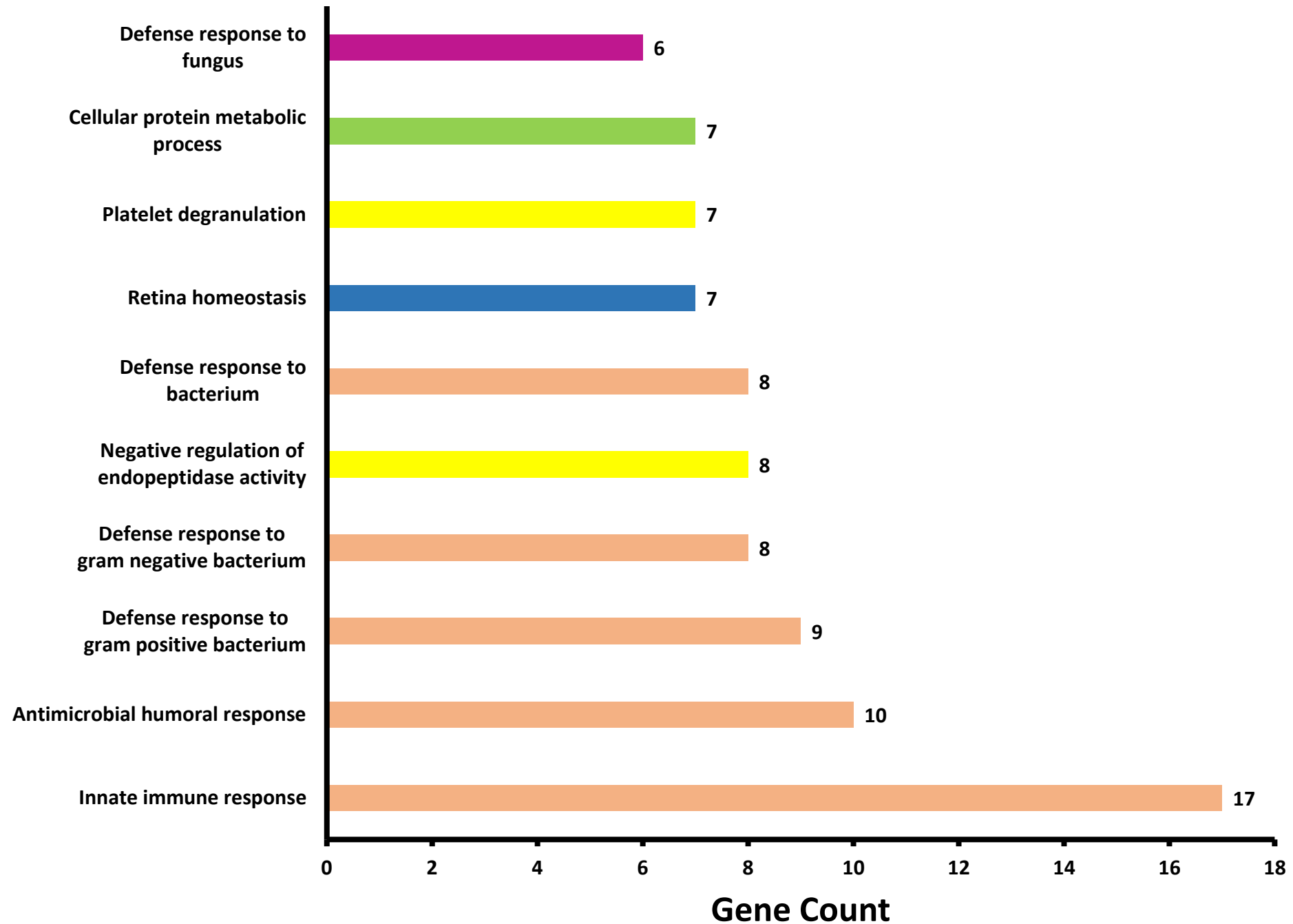


C

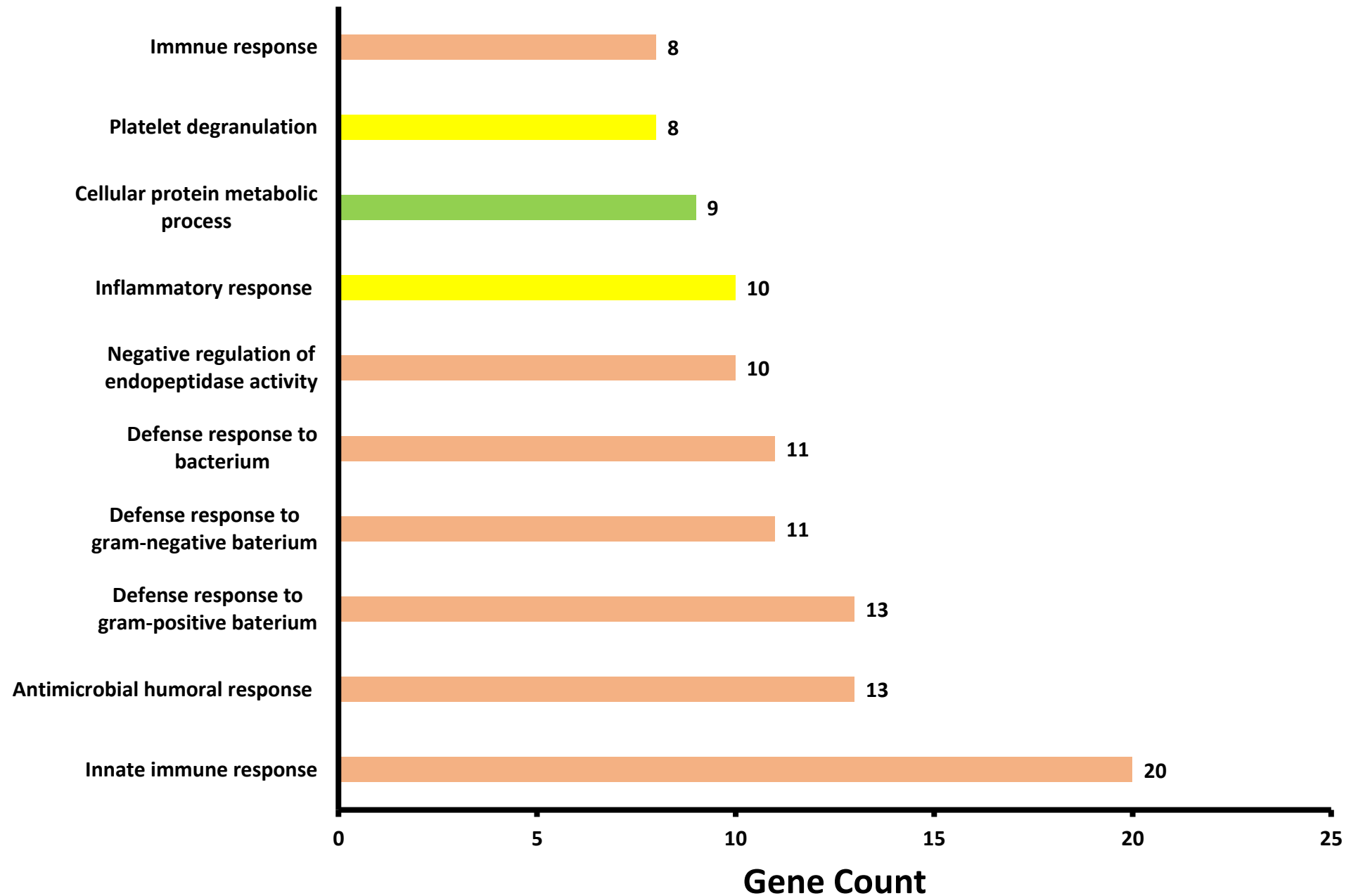


**Figure S2. Functional analysis of the networks of proteins identified in AD in the brain, CSF or blood.** The enriched GO terms with DAVID and ClueGO, respectively, are shown on the "y" axis, while the gene counts on the "x" axis.

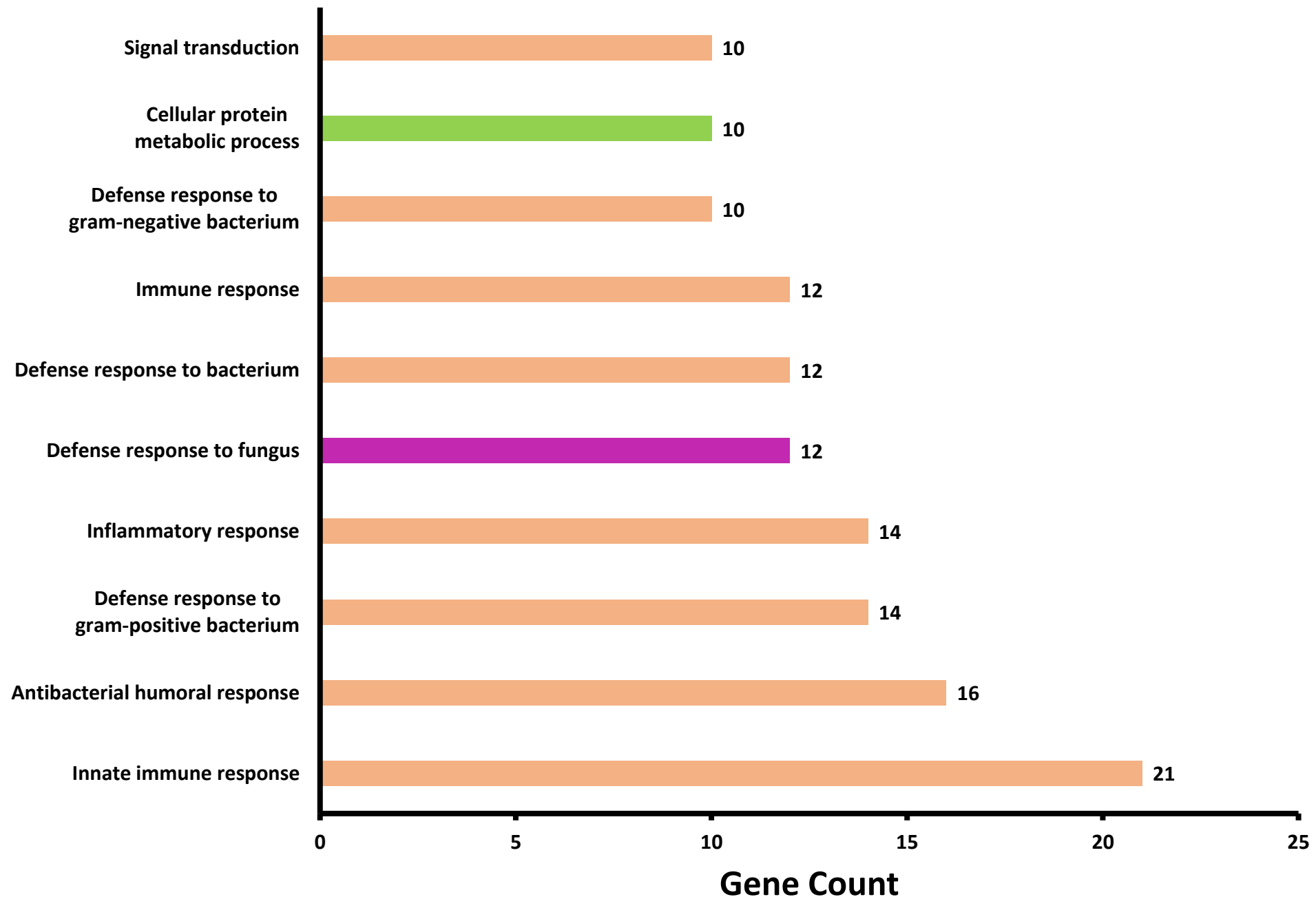
## Top10 GO terms according to DIAVID in case of AMPs identified in the brain



## Top10 GO terms according to DIAVID in case of AMPs identified in the CSF

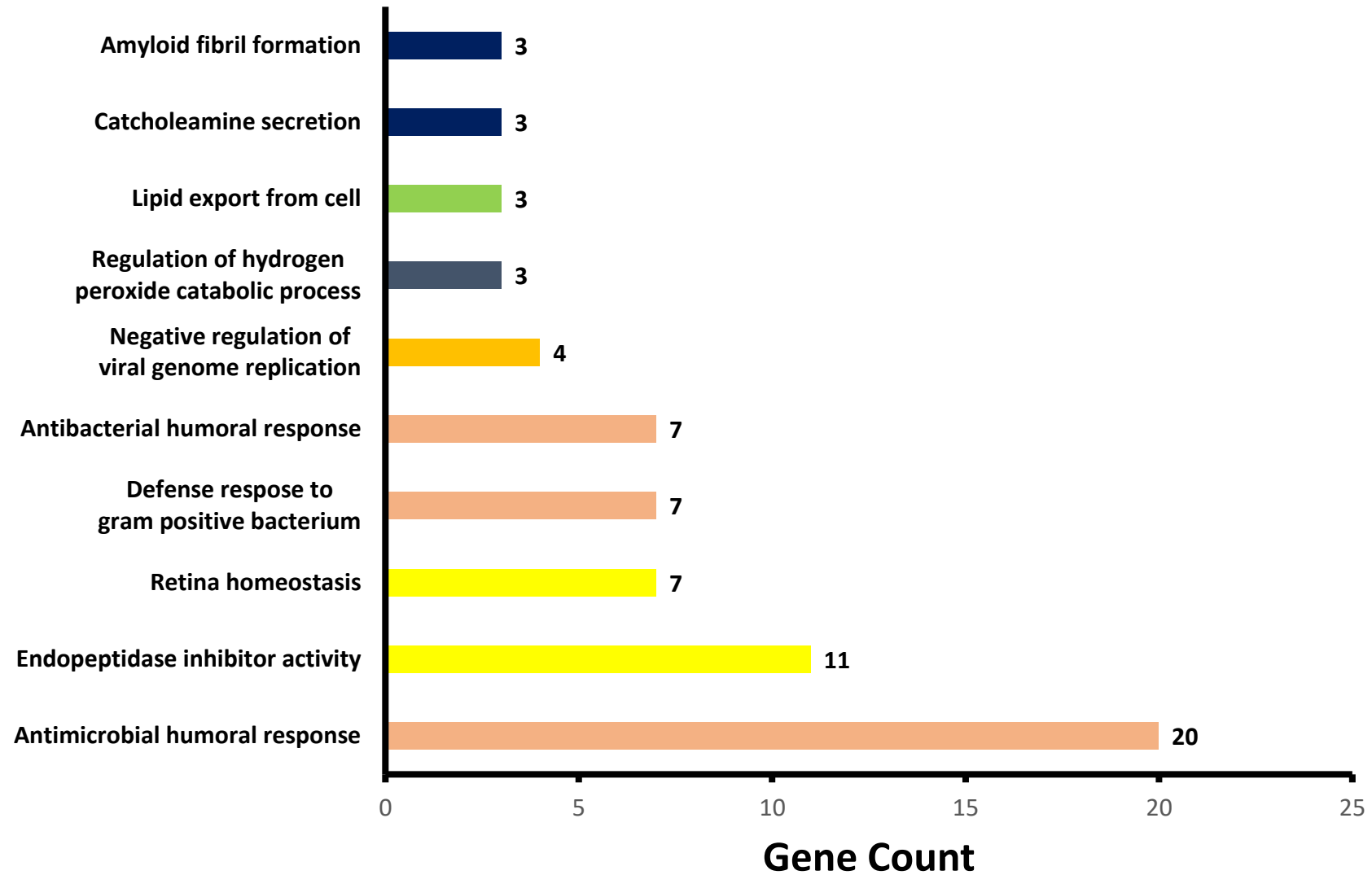


## Top10 GO terms according to DIAVID in case of AMPs identified in the blood

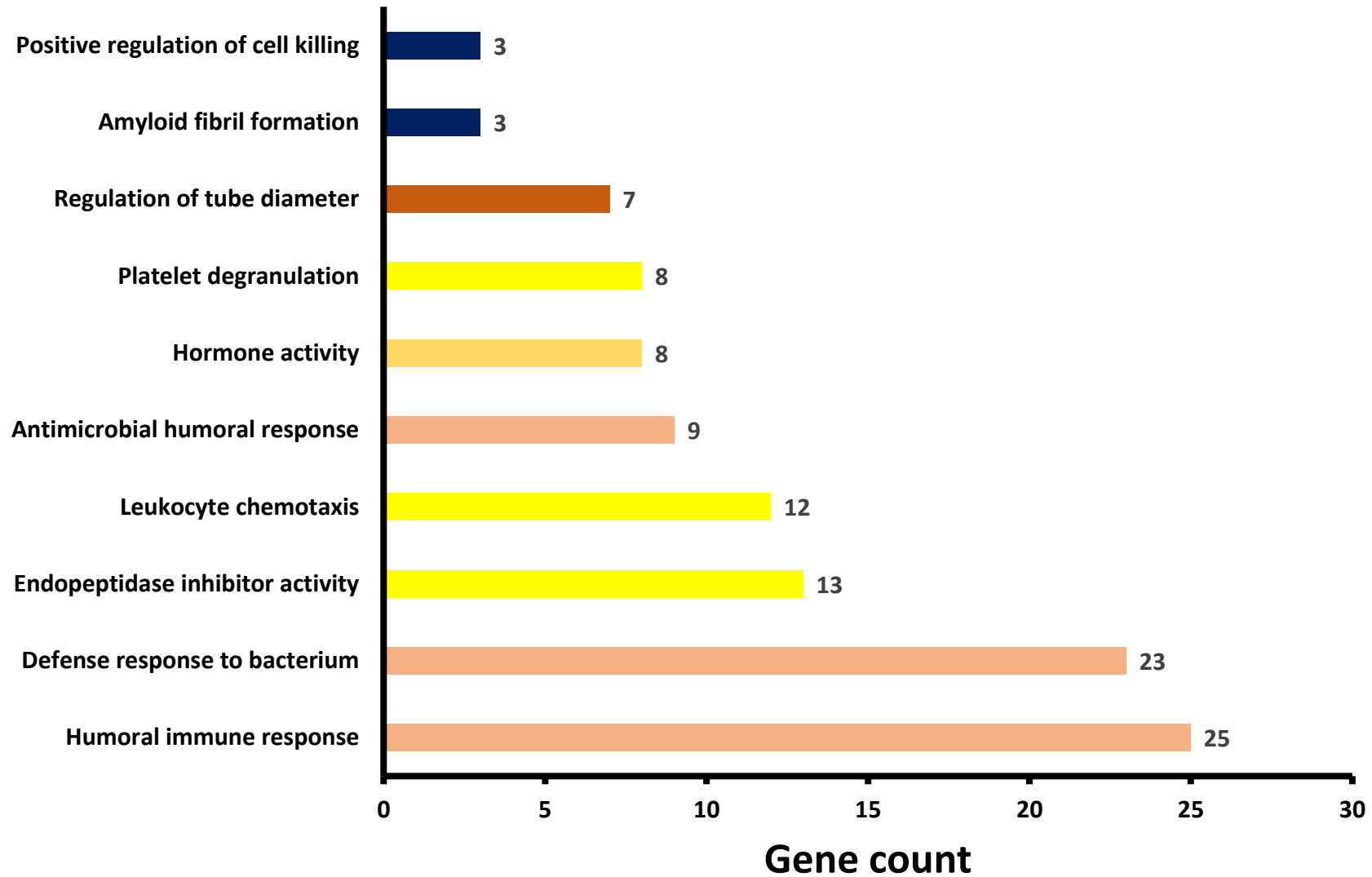




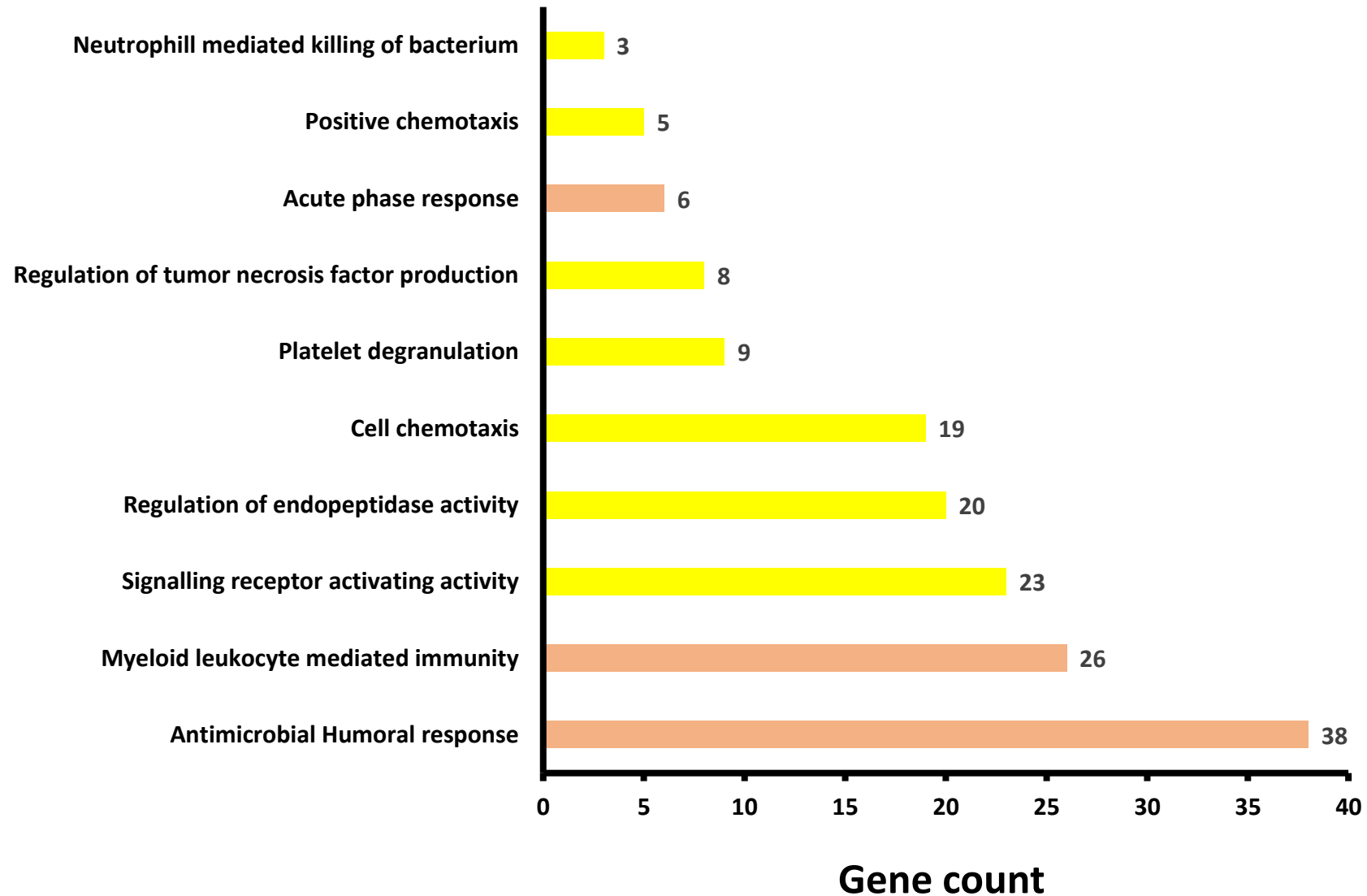
## Top10 GO terms according to ClueGO in case of AMPs identified in the brain



## Top10 GO terms according to ClueGO in case of AMPs identified in the CSF

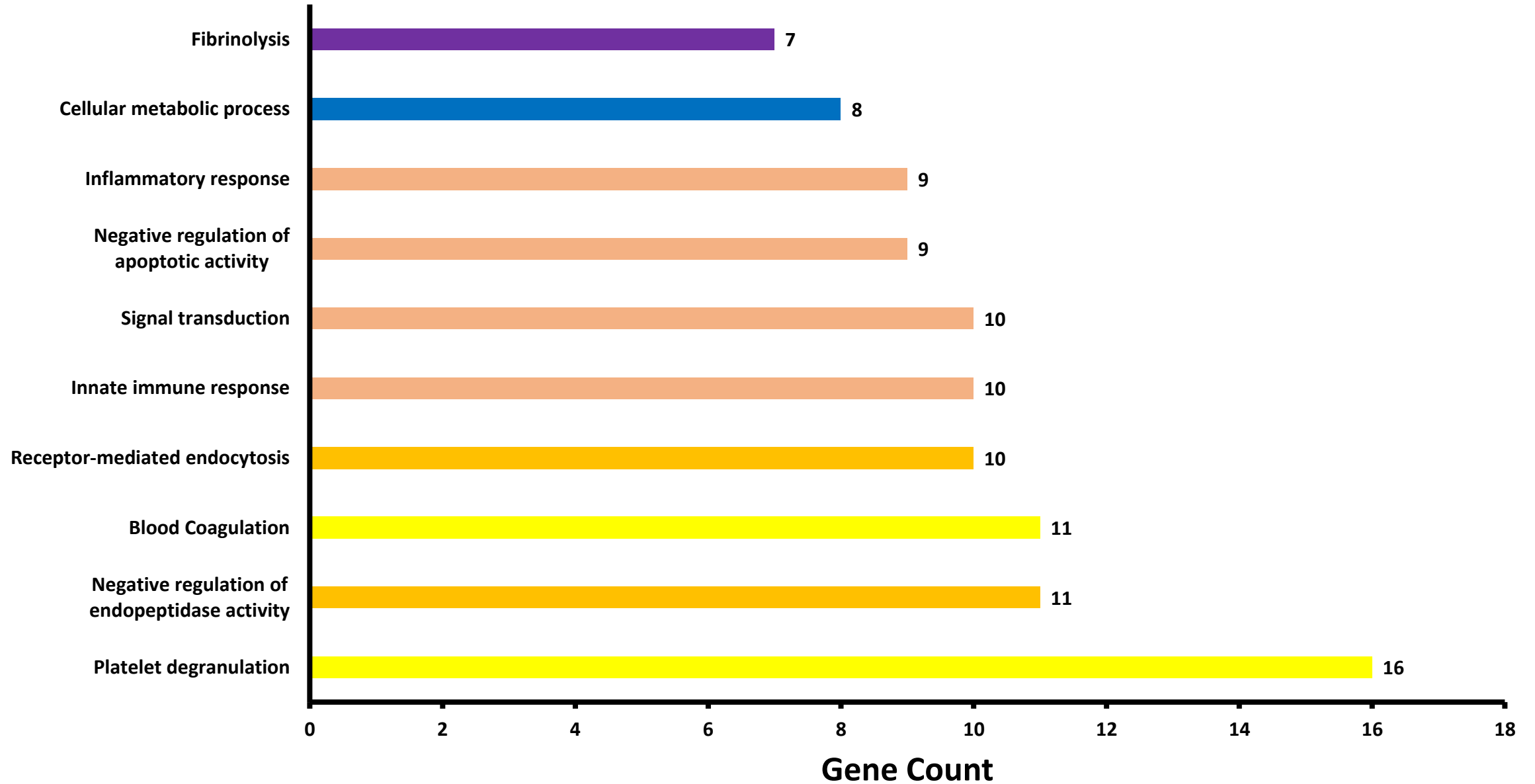


## Top10 GO terms according to ClueGO in case of AMPs identified in the blood

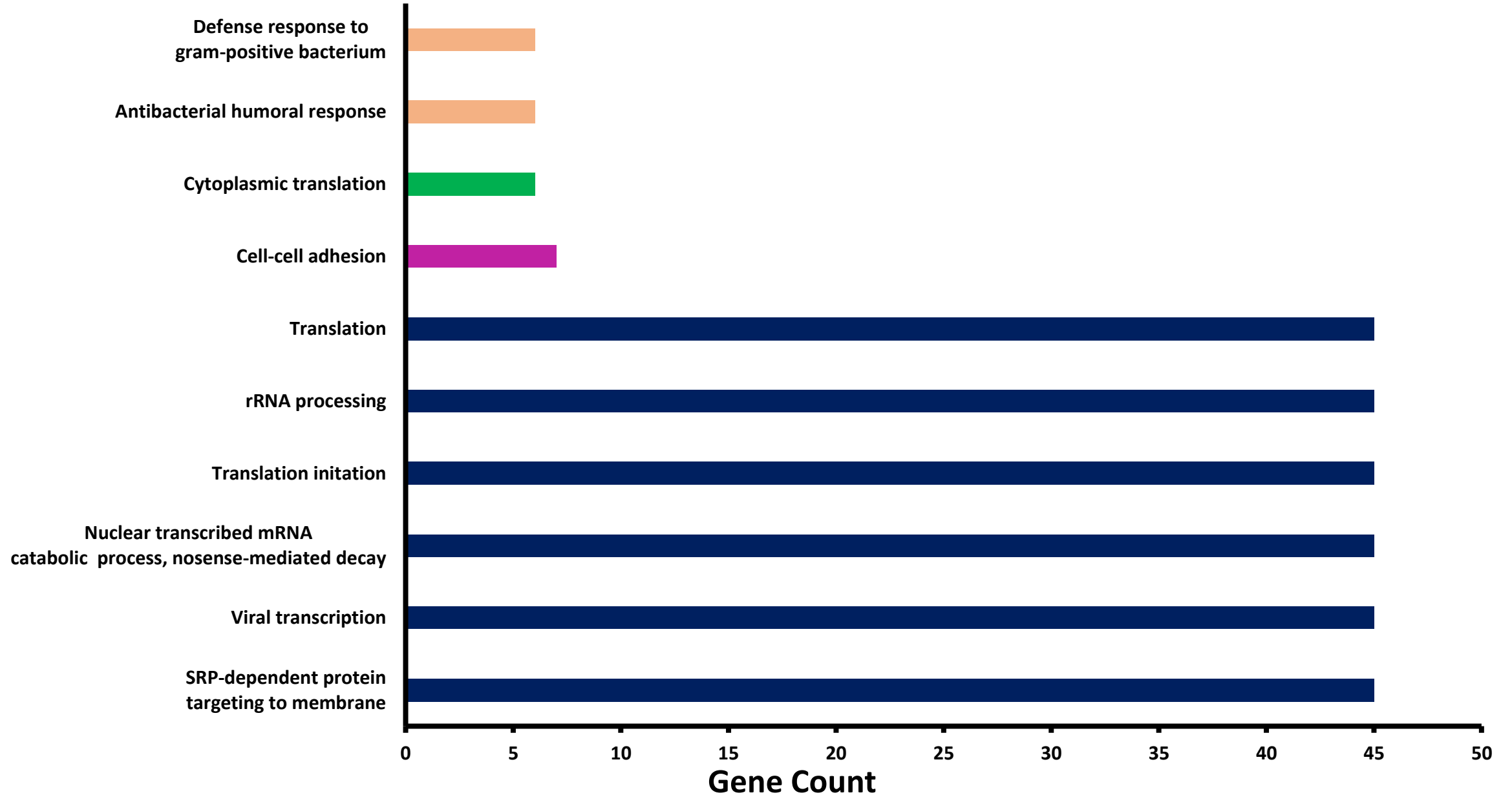


**Figure S3. Functional analysis of the networks of proteins changed in AD in the brain, CSF or blood.** The enriched GO terms with DAVID and ClueGO, respectively, are shown on the "y" axis, while the gene counts on the "x" axis.

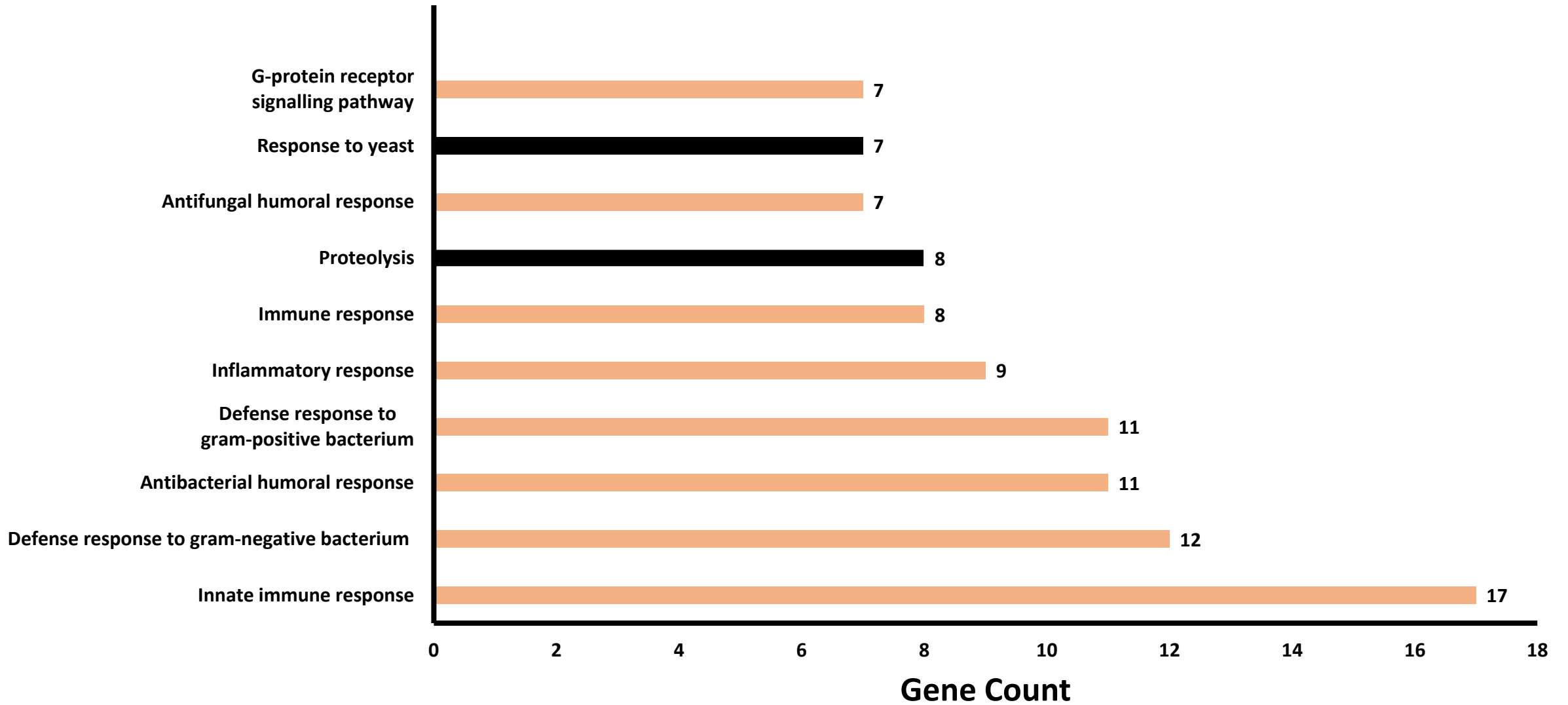
## Top10 GO terms according to DAVID in case of AMPs increased in the brain



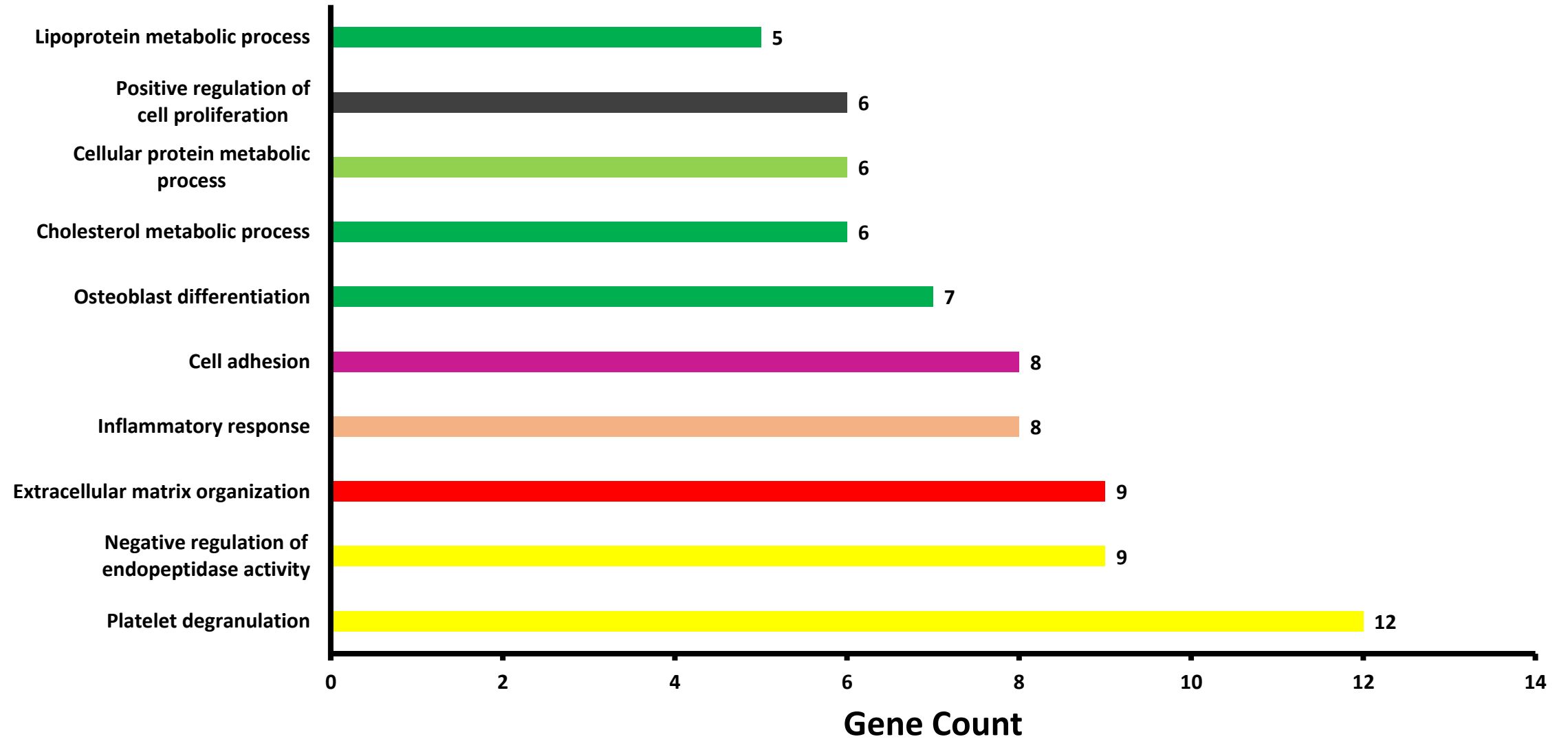
## Top10 GO terms according to DAVID in case of AMPs decreased in the brain



## Top10 GO terms according to DAVID in case of AMPs increased in the CSF

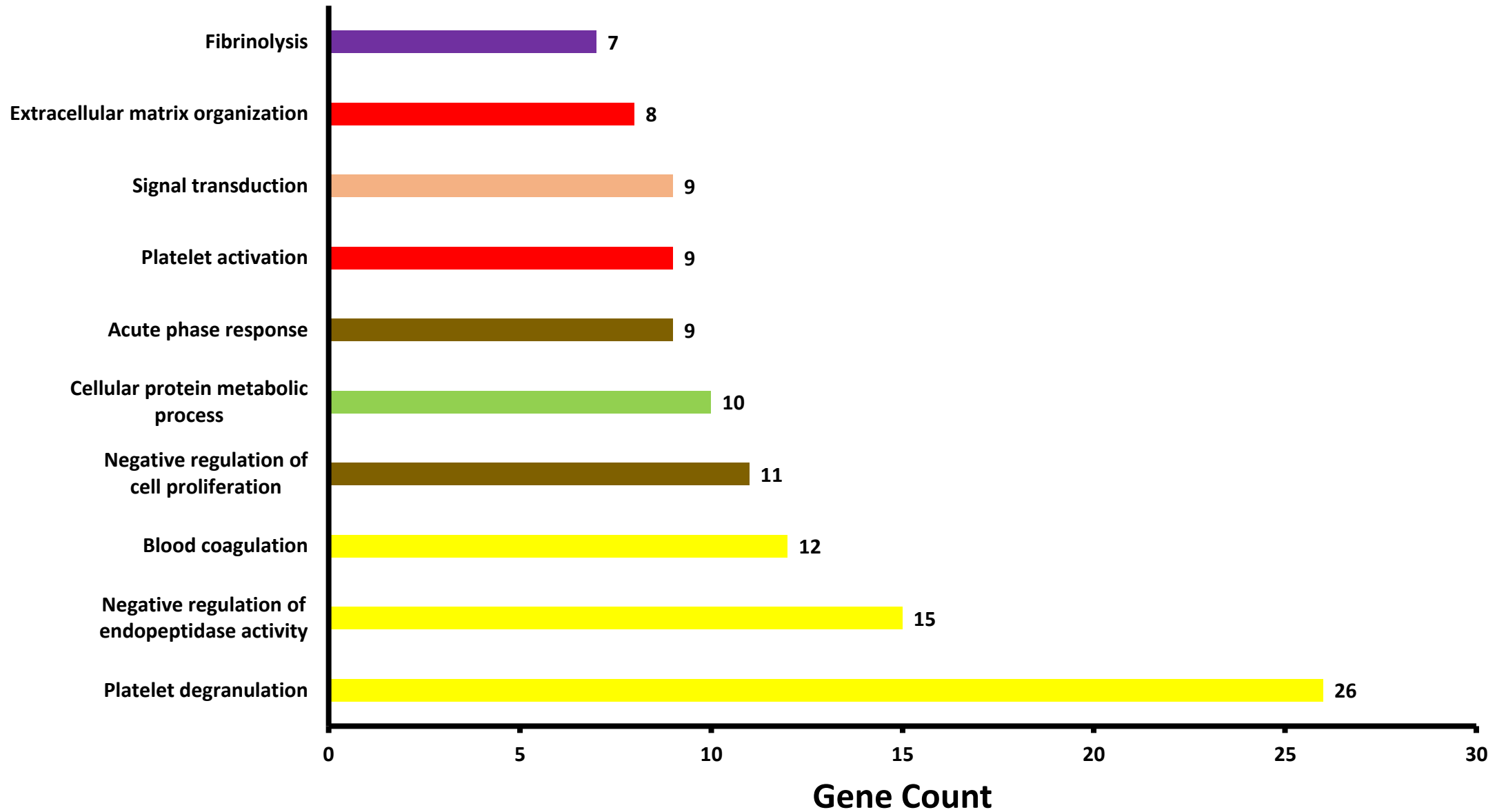


## Top10 GO terms according to DAVID in case of AMPs decreased in the CSF

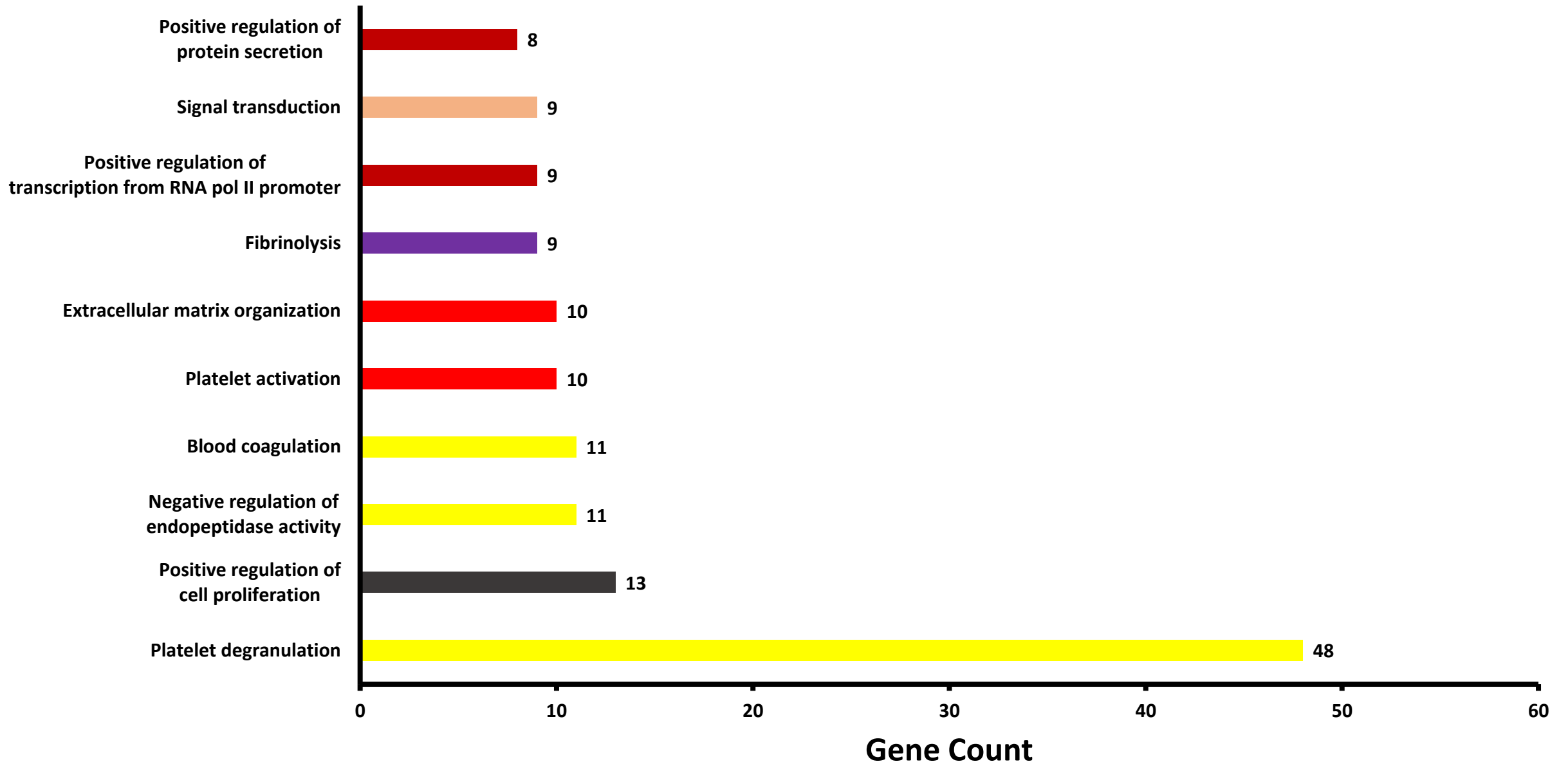




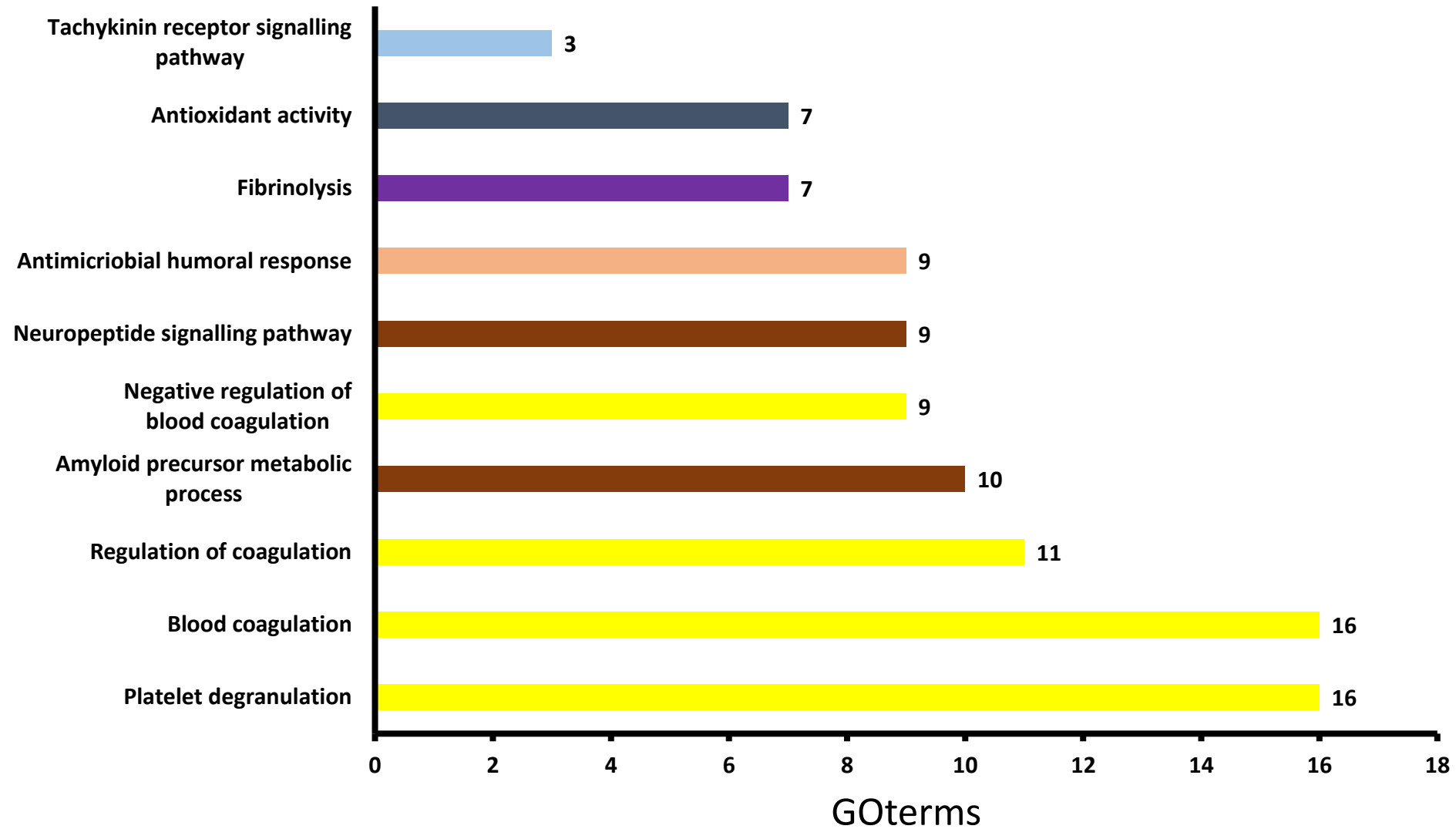
## Top10 GO terms according to DAVID in case of AMPs increased in the blood



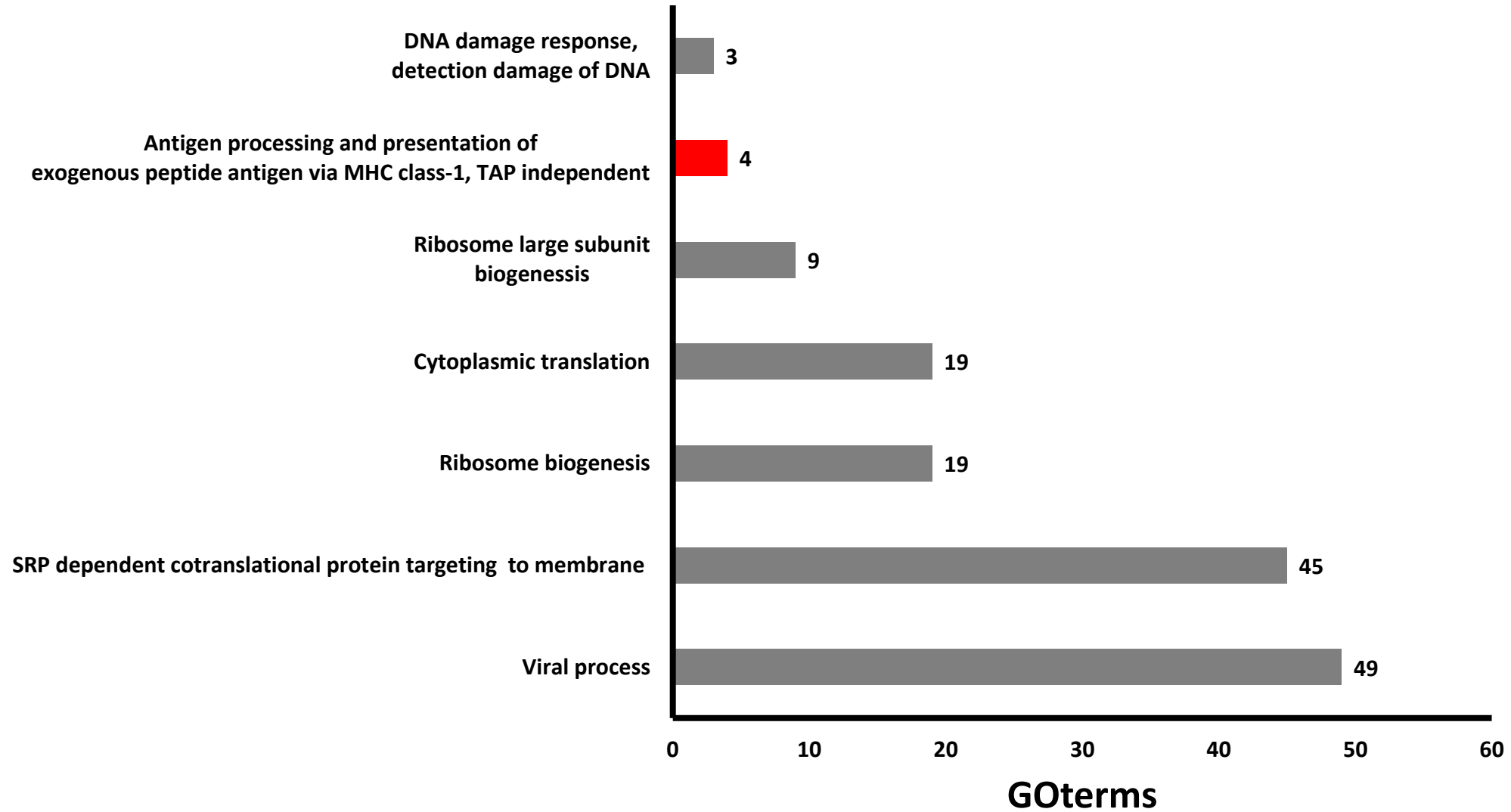
## Top10 GO terms according to DAVID in case of AMPs decreased in the blood



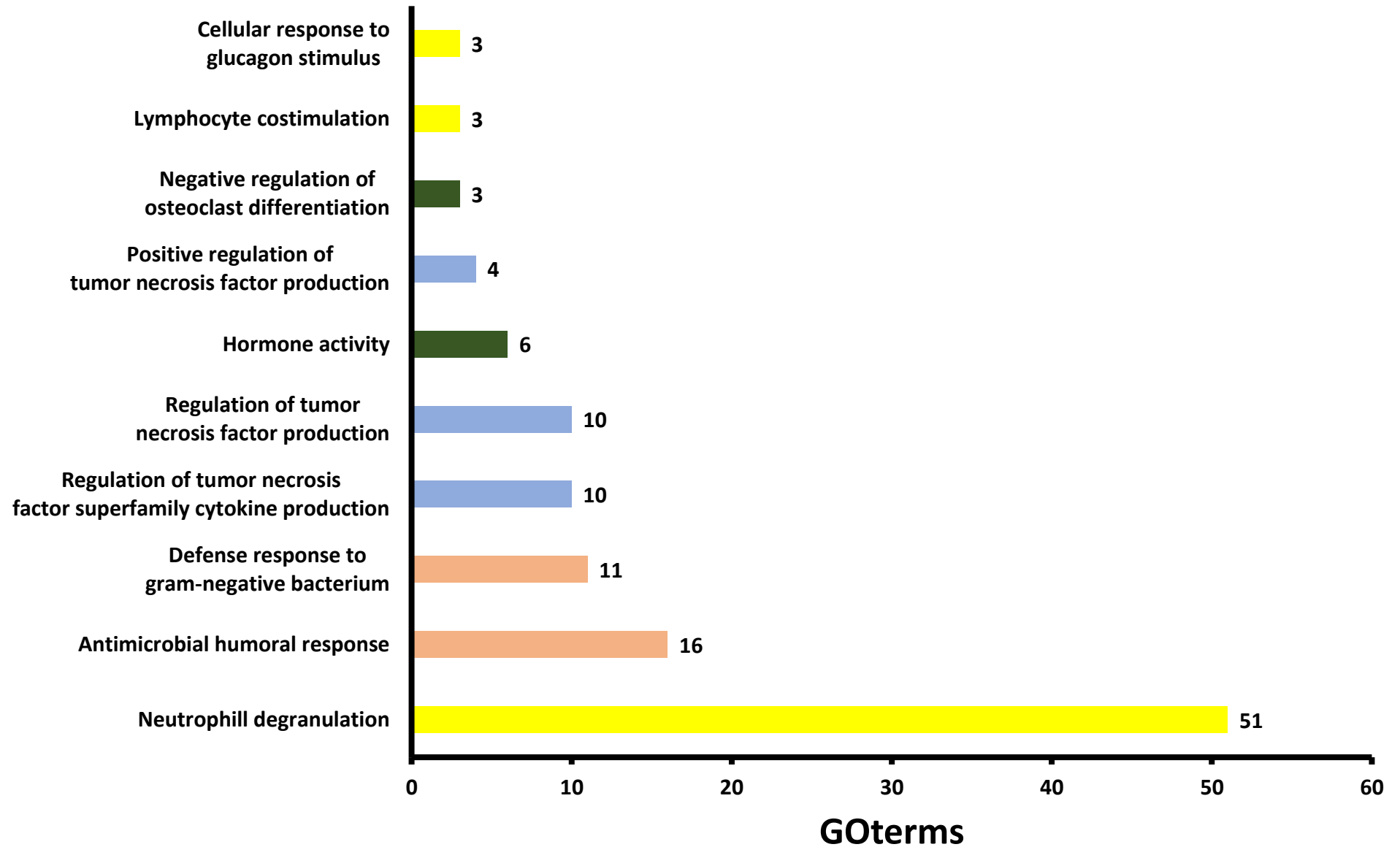
## Top10 GO terms according to ClueGO in case of AMPs increased in the brain



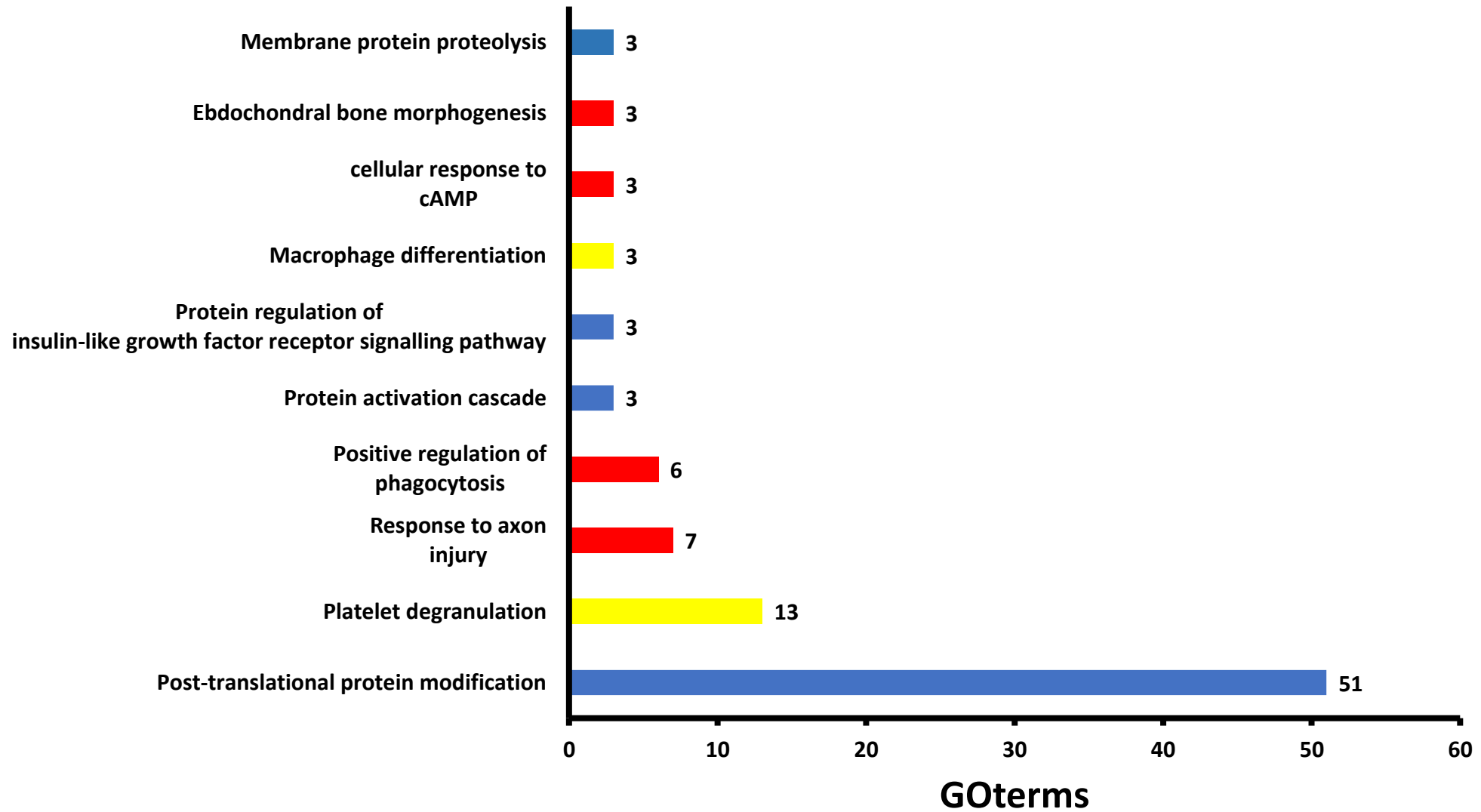
## Top10 GO terms according to ClueGO in case of AMPs decreased in the brain



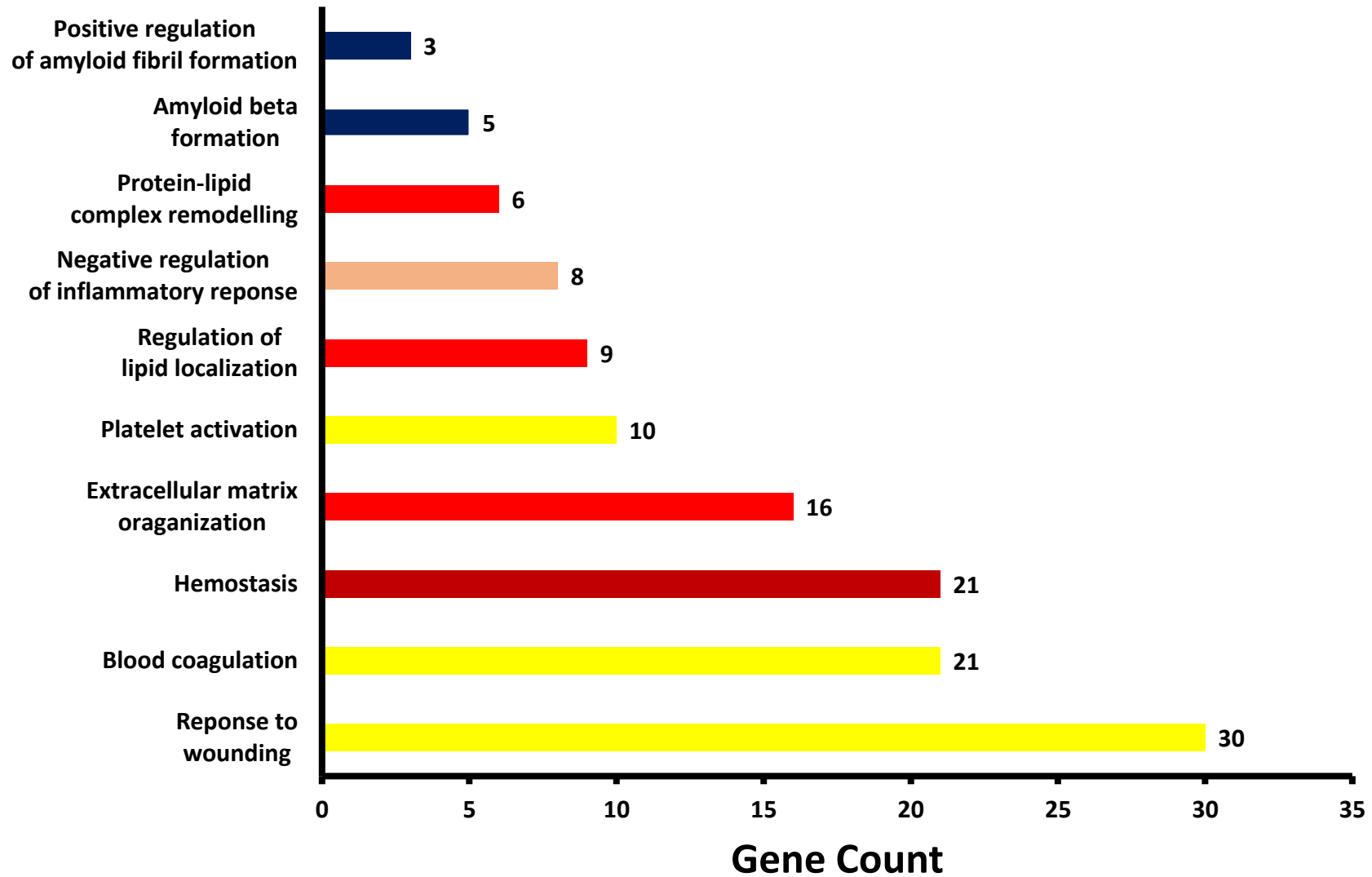
## Top10 GO terms according to ClueGO in case of AMPs increased in the CSF



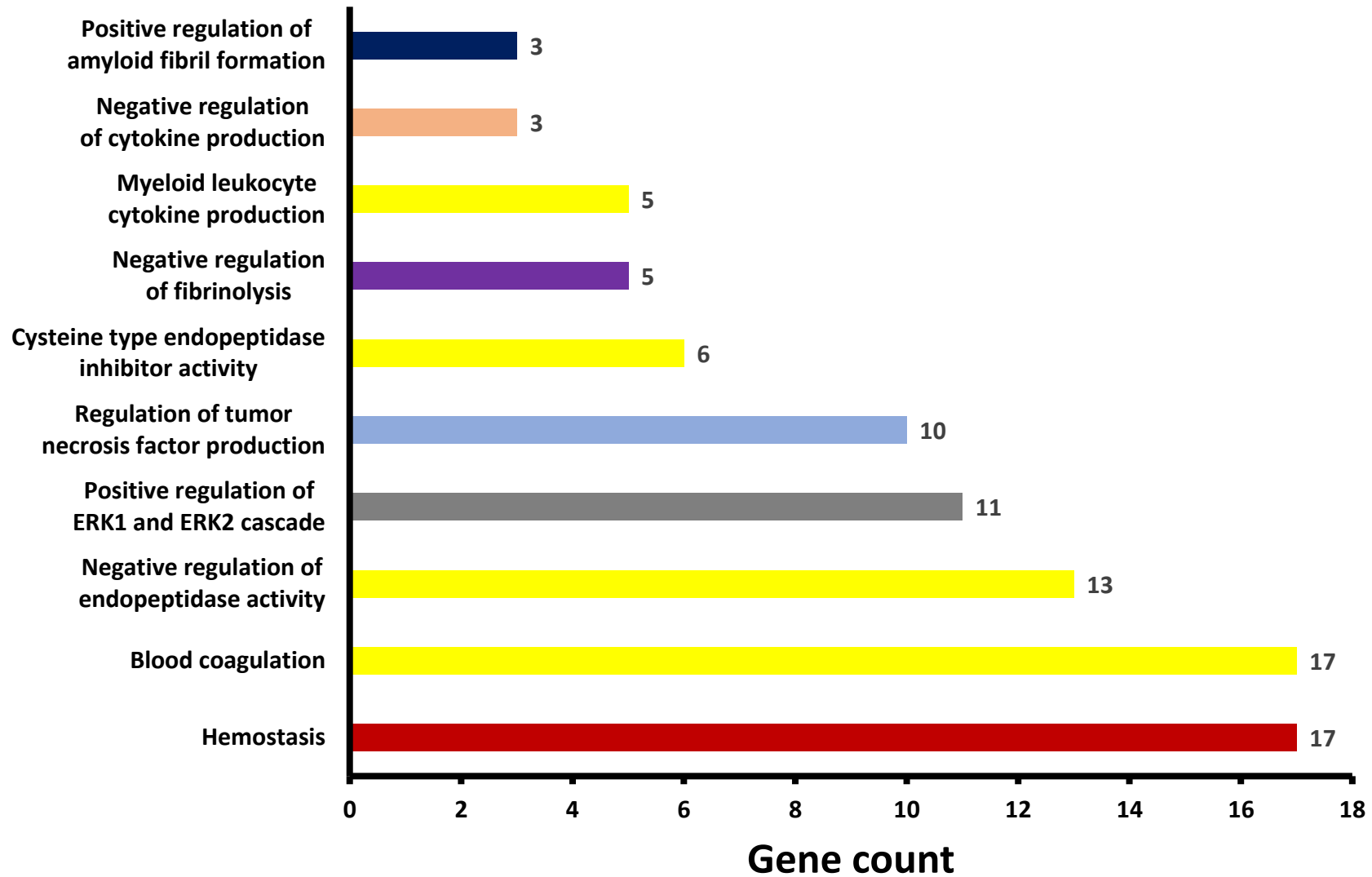
## Top10 GO terms according to ClueGO in case of AMPs decreased in the CSF



## Top10 GO terms according to ClueGO in case of AMPs increased in the blood



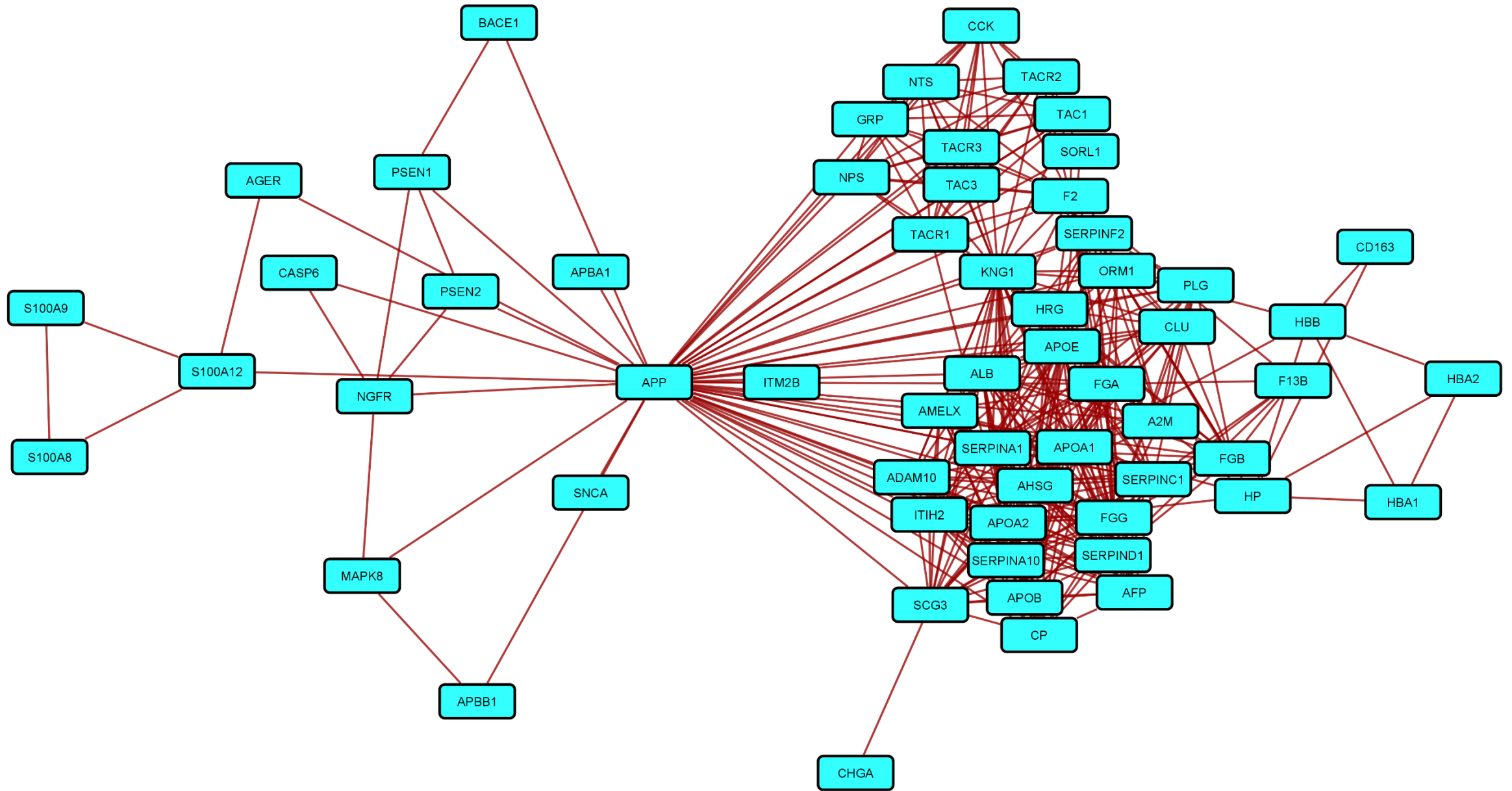
## Top10 GO terms according to ClueGO in case of AMPs decreased in the blood





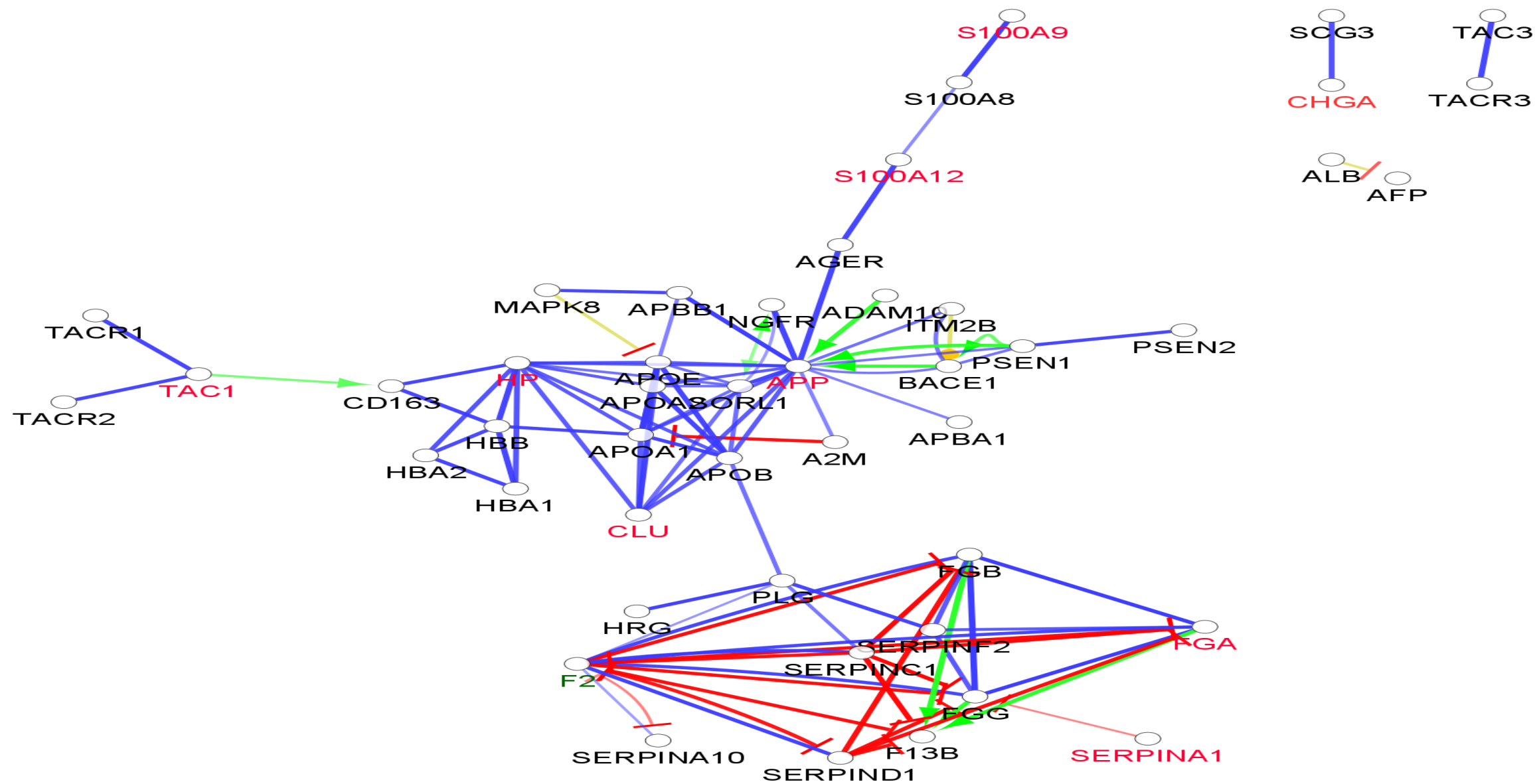
**Figure S4: Protein-protein interaction network of AMPs increased in brain in AD.**

The AMPs showing a statistically significant increase in AD and their 50 first shell of interactors are shown. The rectangles indicate the proteins and the lines indicate the interaction between them. The proteins are labelled with their gene name

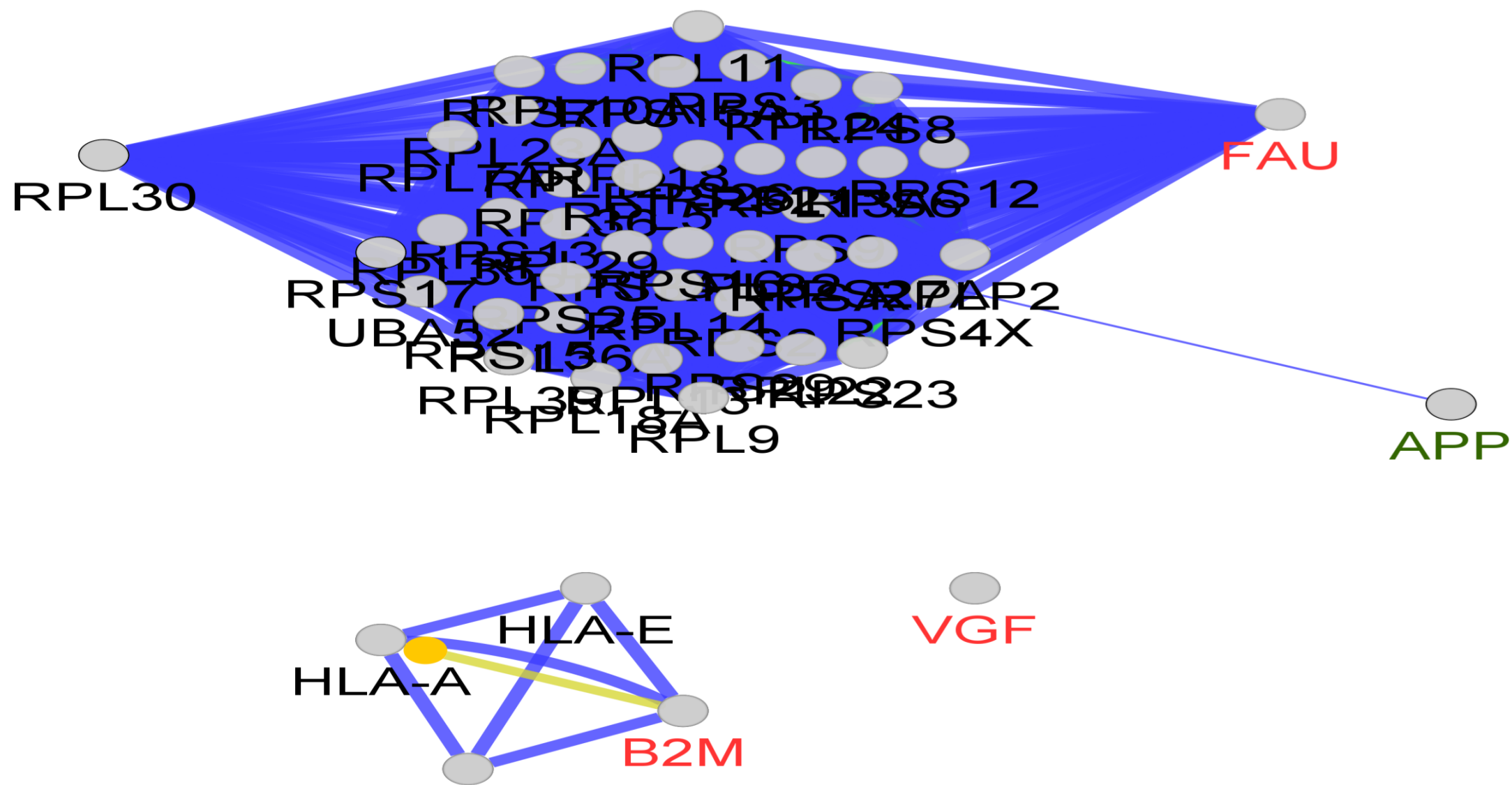


**Figure S5: Gene interaction networks (GIN) for AMPs characteristic to AD** **A.** GIN for AMPs increased in brain. **B.** GIN for AMPs decreased in brain. **C.** GIN for AMPs increased in CSF. **D.** GIN for AMPs decreased in CSF. **E.** GIN for AMPs increased in blood. **F.** GIN for AMPs decreased in blood. The circles represent a gene/protein and the lines indicate interactions. The lines with arrow represent activation, blocking lines represent inhibition, simple lines represent protein-protein interaction. Line color indicates the type of interaction: green color refers to activation, red color to inhibition, blue color binding, whereas yellow color shows co-expression. The red colour of protein label indicates AMPs whose amount changed in a statistically significant manner between AD and control samples, the blue colour shows their interacting partners with no AMP activity, while the green colour indicates interactors with AMP activity. On all panels the proteins are labelled with their gene name.

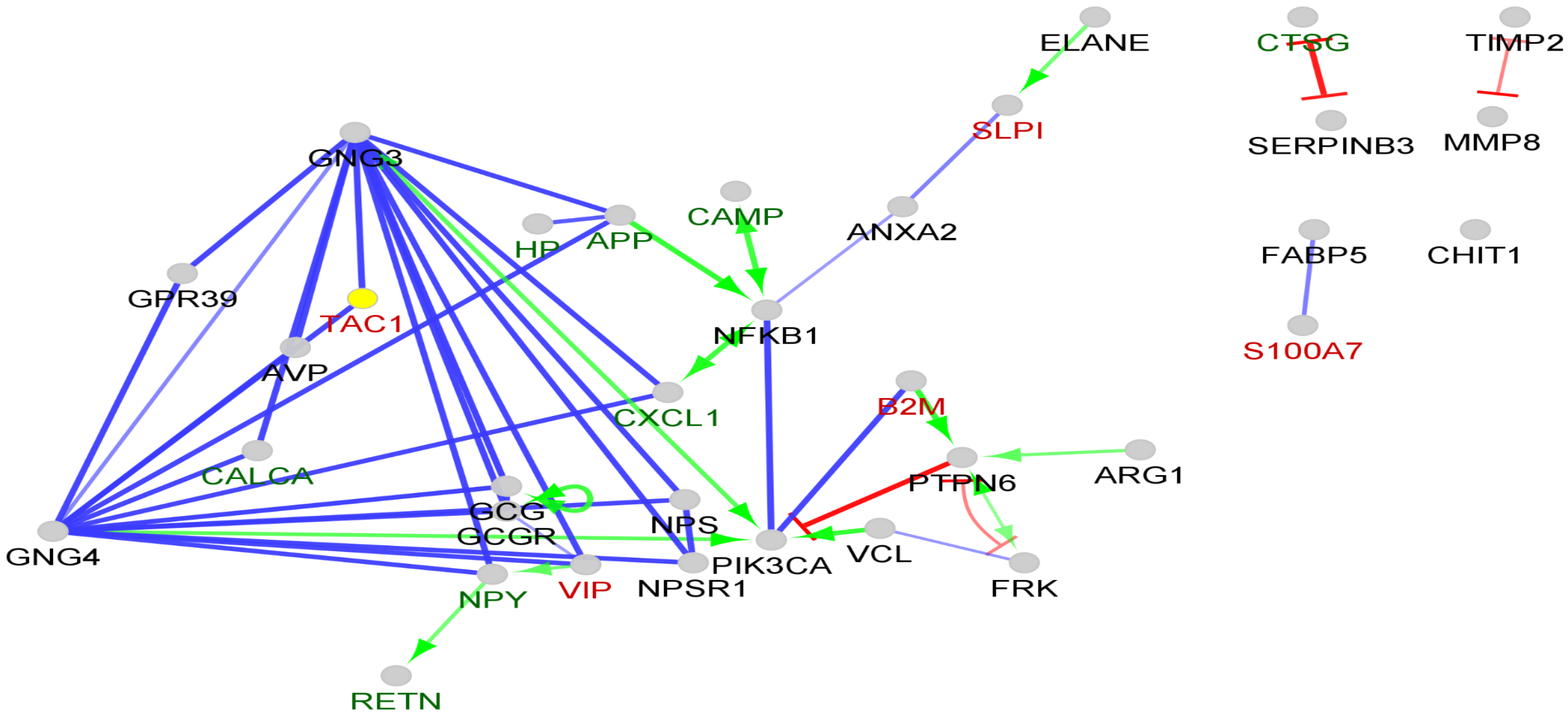
A



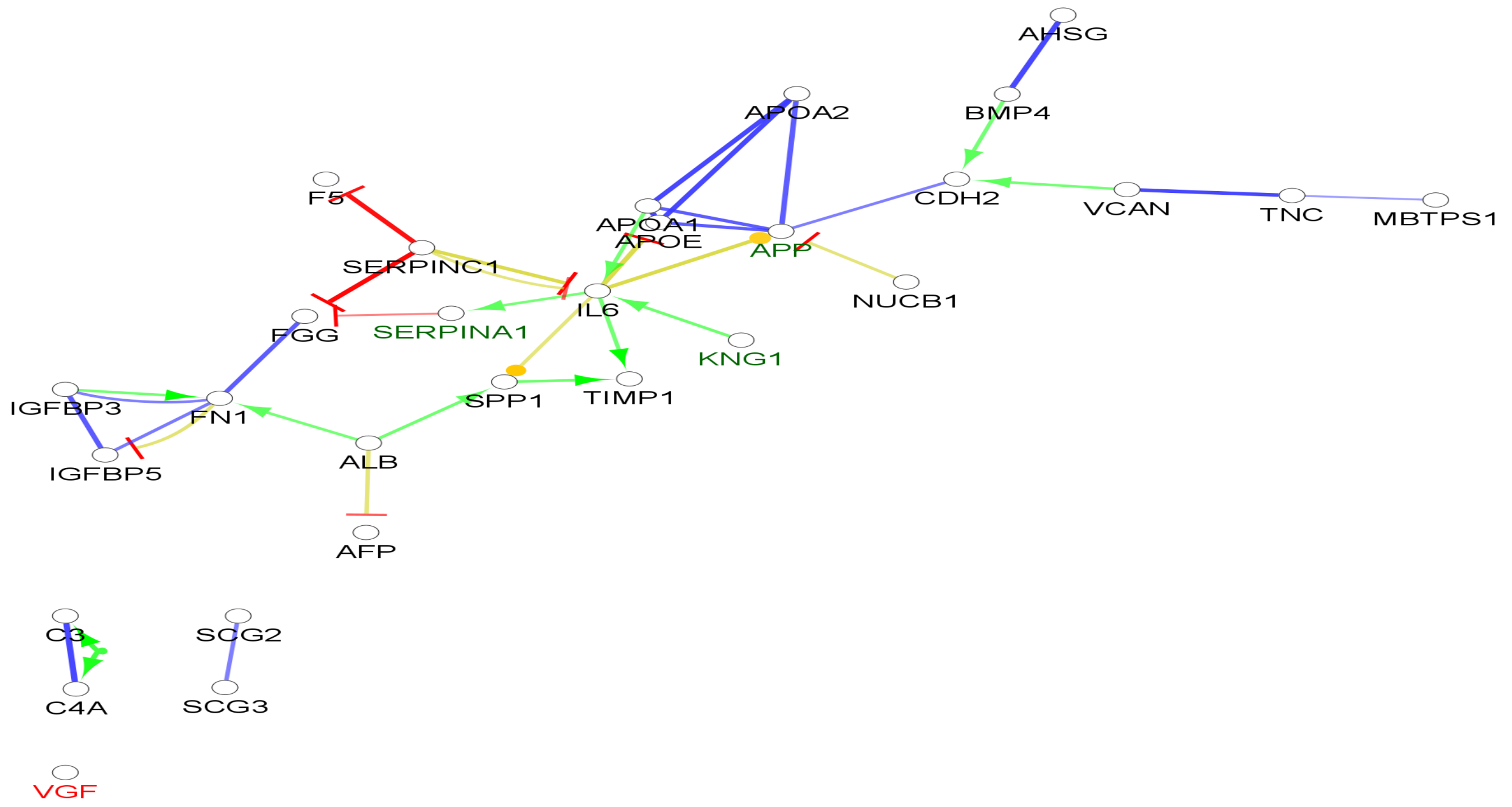
B



C

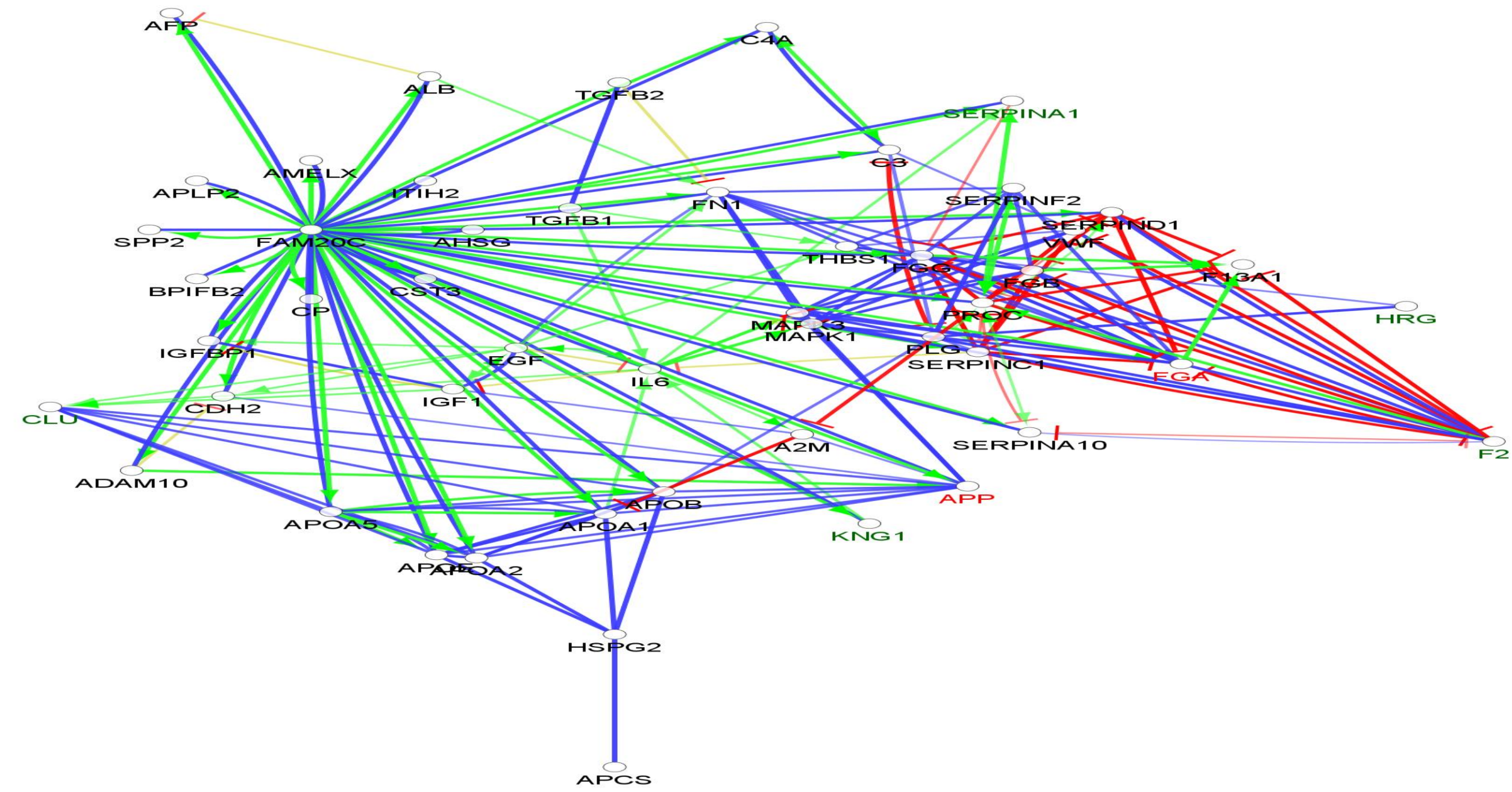


D





E





F

