**Supplementary Figures Legends**

**Figure S1.** Indvidual plots of Bd load throughout infection trials. In each species, lines are differently colored to highlight individuals that had no detectable infection at time of tissues sampling and were classed as "cleared".

**Figure S2.** Histogram of *de novo* assembled transcript alignment to the *Xenopus tropicalis* NCBI reference protein dataset. Protein coverage data generated using blastx searches and Trinity-provided perl scripts.

**Figure S3.** Venn diagrams of species overlap of differentially expressed genes, separating the two congeneric focal species.

**Figure S4.** Visualization of the hub genes of the SK1 skin module defined by weighted gene co-expression network analysis (WGCNA). Hub genes defined as those included in both the top 100 module membership values and the top 150 network connection strengths.

**Figure S5.** Visualization of the hub genes of the SP1 spleen module defined by weighted gene co-expression network analysis (WGCNA). Hub genes defined as those included in both the top 100 module membership values and the top 150 network connection strengths.

**Figure S6.** Visualization of the hub genes of the SP2 spleen module defined by weighted gene co-expression network analysis (WGCNA). Hub genes defined as those included in both the top 100 module membership values and the top 150 network connection strengths.

**Figure S7.** Examples of inflammatory cytokines found to be differentially expressed in two or more of the studied species. Asterisks denote significance after correction for multiple testing (FDR). White = uninfected (controls), grey = infected. Species ordered by average Bd-infection intensity, from lowest

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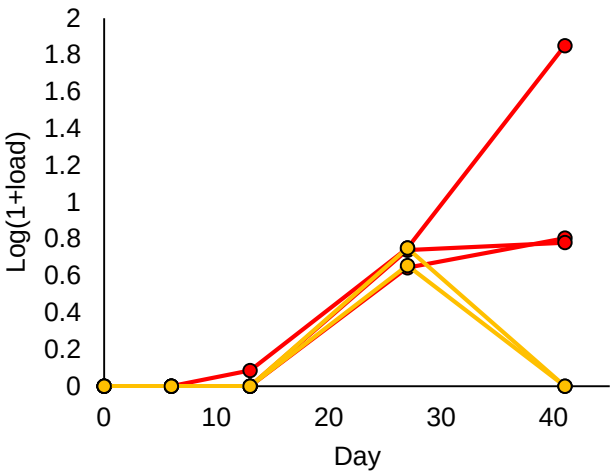
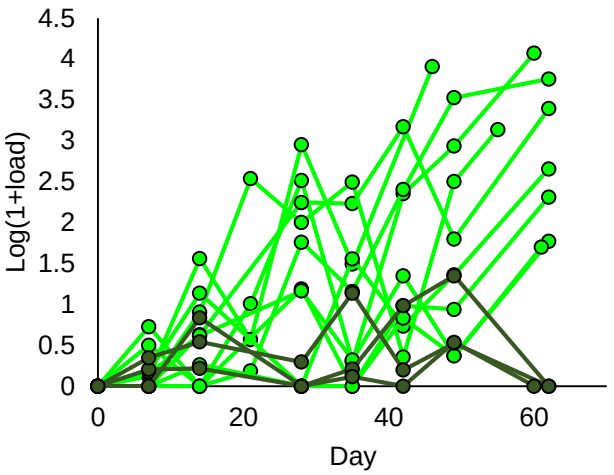
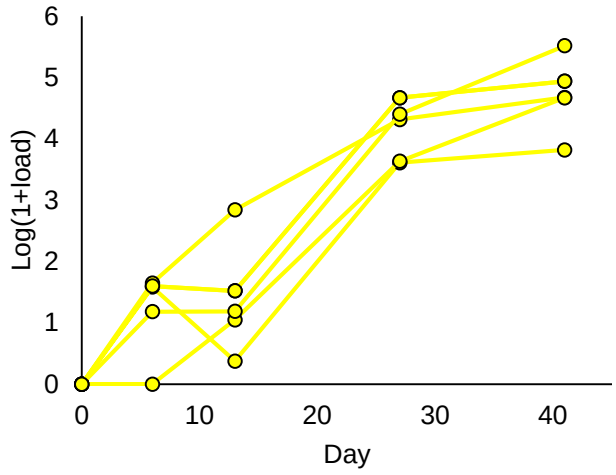


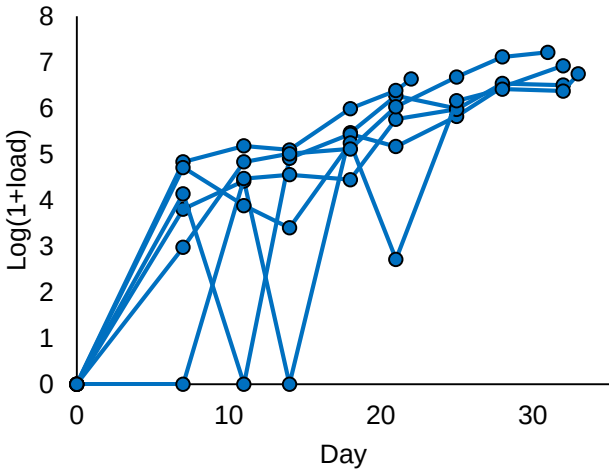

*Atelopus glyphus*

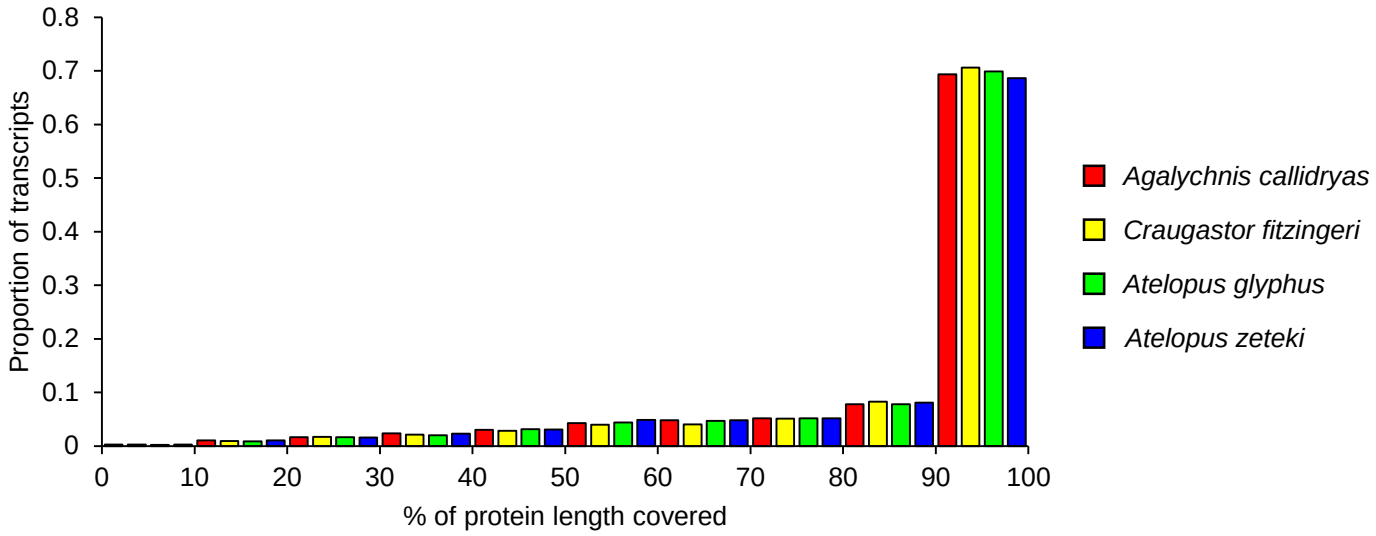



*Craugastor fitzingeri*




*Atelopus zeteki*

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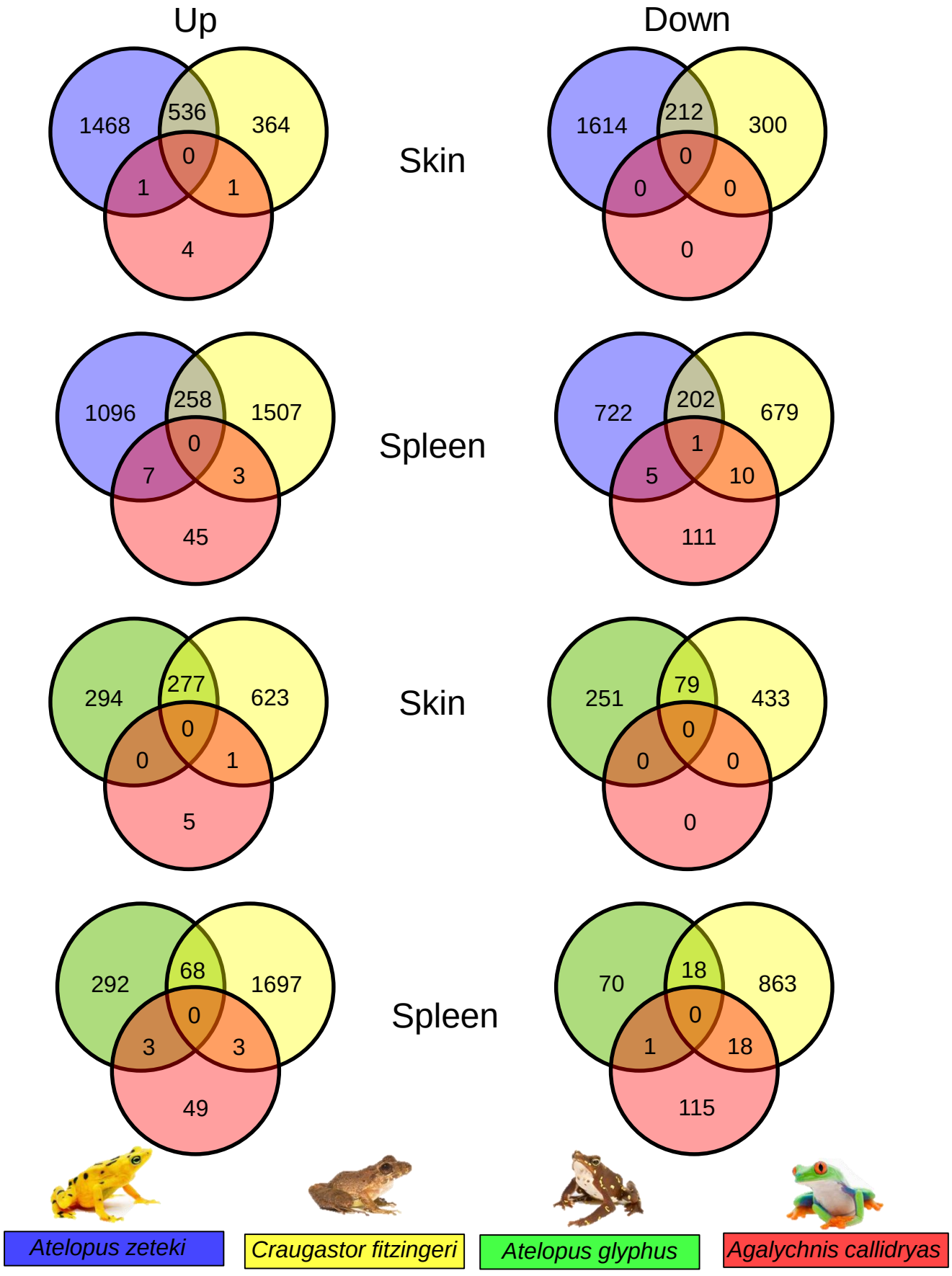
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
Proportion of transcripts
0
10
20
30
40
50
60
70
80
90
100
% of protein length covered
Agalychnis callidryas
Craugastor fitzingeri
Atelopus glyphus
Atelopus zeteki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Down
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1
1
4
Skin
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212
300
0
0
0
0
1096
258
1507
0
7
3
45
Spleen
722
202
679
1
5
10
111
294
277
623
0
0
1
5
Skin
251
79
433
0
0
0
0
292
68
1697
0
3
3
49
Spleen
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18
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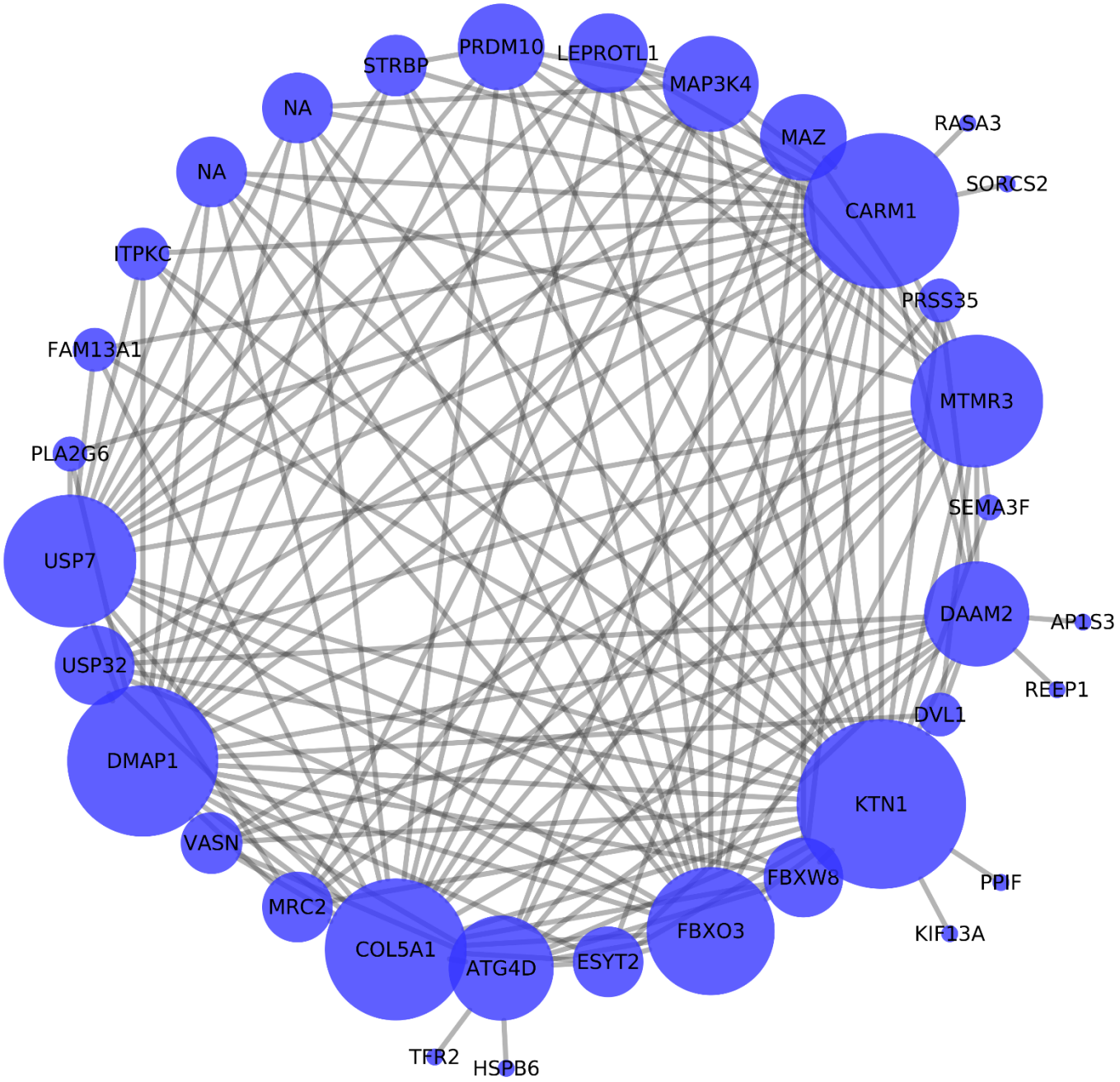
1
18
115
Atelopus zeteki
Craugastor fitzingeri
Atelopus glyphus
Agalychnis callidryas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MAZ
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SORCS2
CARM1
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FAM13A1
MTMR3
PLA2G6
SEMA3F
USP7
DAAM2
AP1S3
USP32
REEP1
DVL1
DMAP1
KTN1
VASN
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ATG4D
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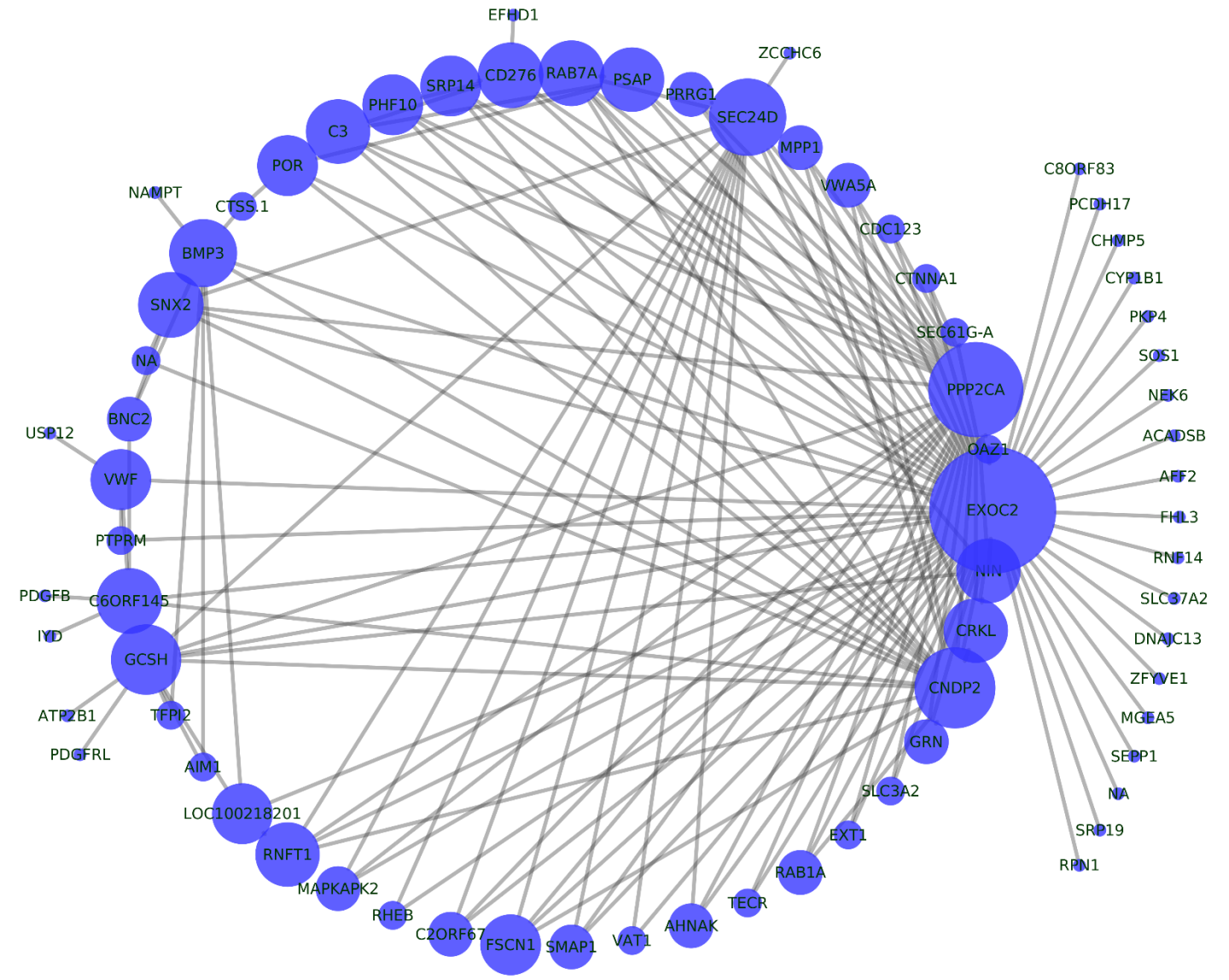
TFR2
HSPB6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CD276
RAB7A
SRP14
PSAP
PRRG1
PHF10
SEC24D
C3
MPP1
POR
VWA5A
NAMPT
CTSS.1
CDC123
BMP3
CTNNA1
SNX2
SEC61G-A
NA
PPP2CA
BNC2
USP12
OAZ1
VWF
EXOC2
PTPRM
NIN
PDGFB
C6ORF145
CRKL
IYD
GCSH
CNDP2
ATP2B1
TFPI2
GRN
PDGFRL
AIM1
SLC3A2
LOC100218201
EXT1
RNFT1
RAB1A
MAPKAPK2
TECR
RHEB
AHNAK
C2ORF67
FSCN1
SMAP1
VAT1
C8ORF83
PCDH17
CHMP5
CYP1B1
PKP4
SOS1
NEK6
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NA
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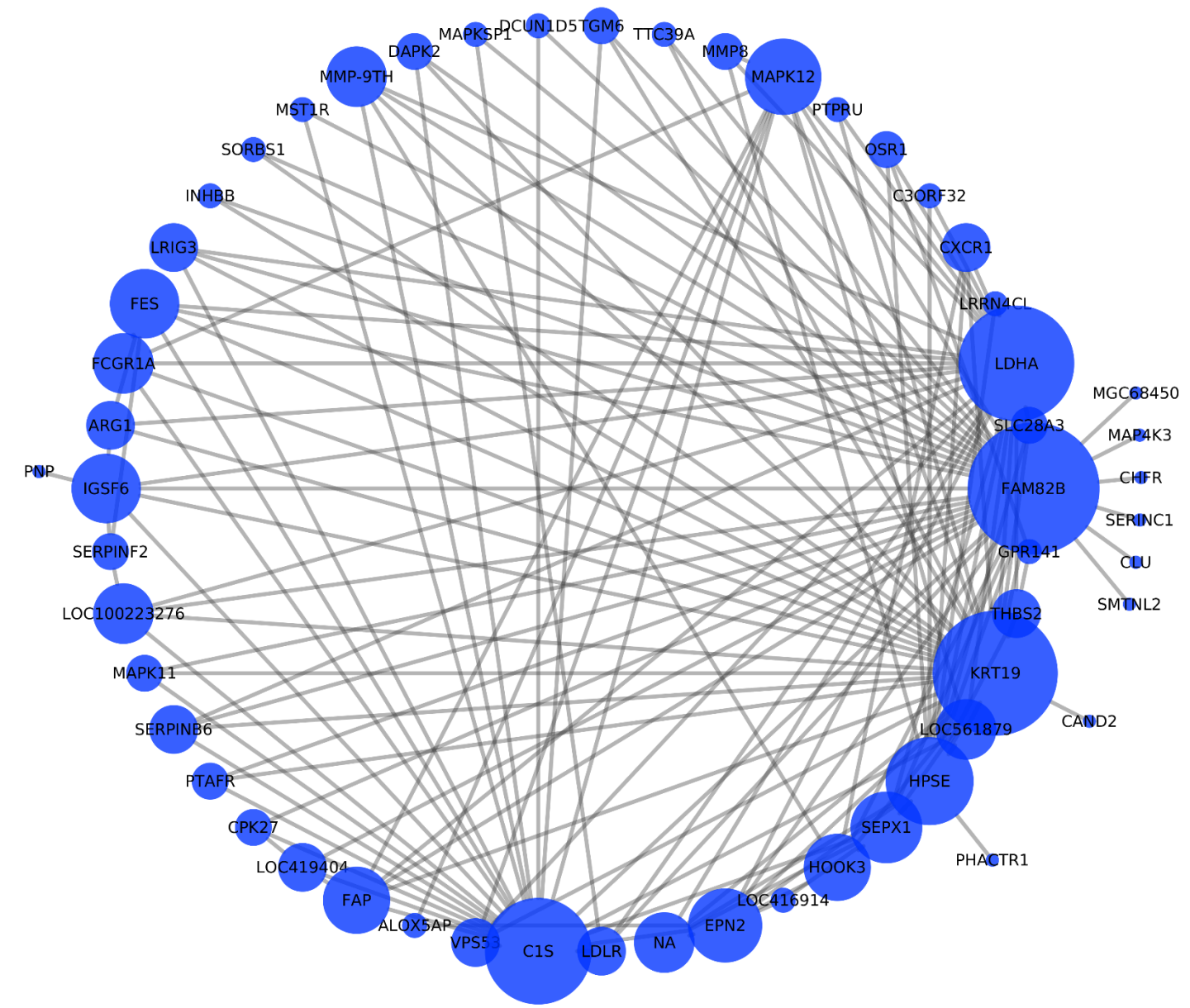
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DAPK2
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MST1R
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SORBS1
OSR1
INHBB
C3ORF32
LRIG3
CXCR1
FES
LRRN4CL
FCGR1A
LDHA
MGC68450
ARG1
SLC28A3
MAP4K3
PNP
IGSF6
FAM82B
CHFR
SERINC1
SERPINF2
GPR141
CLU
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THBS2
MAPK11
KRT19
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CAND2
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CPK27
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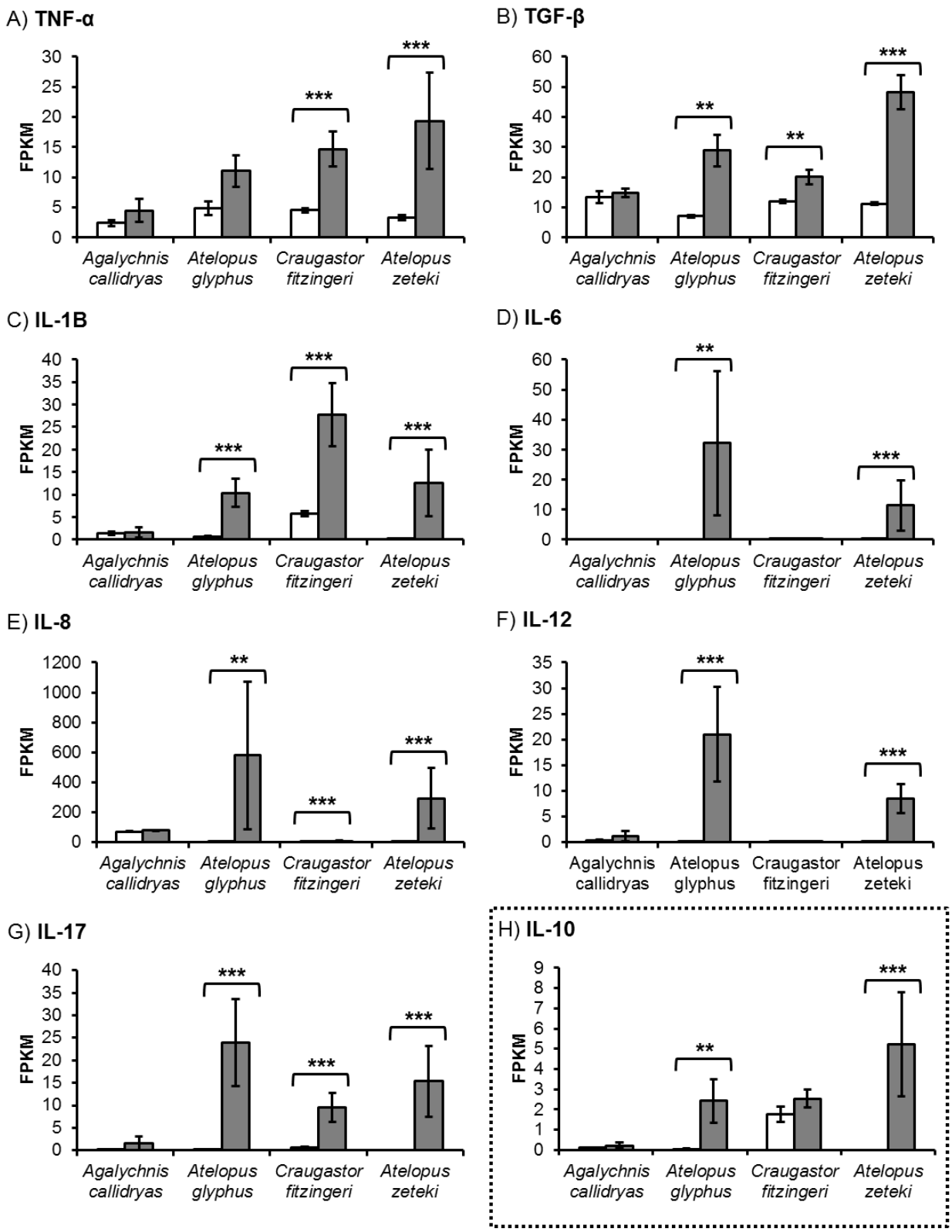
A) TNF-α
B) TGF-β
C) IL-1B
D) IL-6
E) IL-8
F) IL-12
G) IL-17
H) IL-10
FPKM
Agalychnis callidryas
Atelopus glyphus
Craugastor fitzingeri
Atelopus zeteki
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