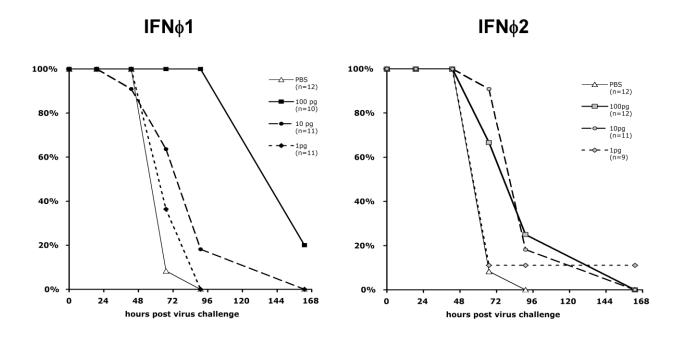
Figure S1. Biological activity of IFNφ1 and IFNφ2



FigS1. Bioactivity of recombinant zebrafish IFNs demonstrated by increased survival to a viral challenge, using the method described in ref (2). 60hpf zebrafish larvae were injected intravenously with the indicated amount of recombinant IFN diluted in PBS (left panel, IFN ϕ 1; right panel, IFN ϕ 2). After 6 hours of incubation at 28°C, they were challenged by intravenous inoculation of 60 pfu of IHNV25 virus. Larvae were then distributed in individual wells and incubated at 24°C, and their survival was regularly monitored with a stereomicroscope. With this assay, the specific activity of recombinant IFN ϕ 1 appears roughly 3 times higher than that of recombinant IFN ϕ 2.

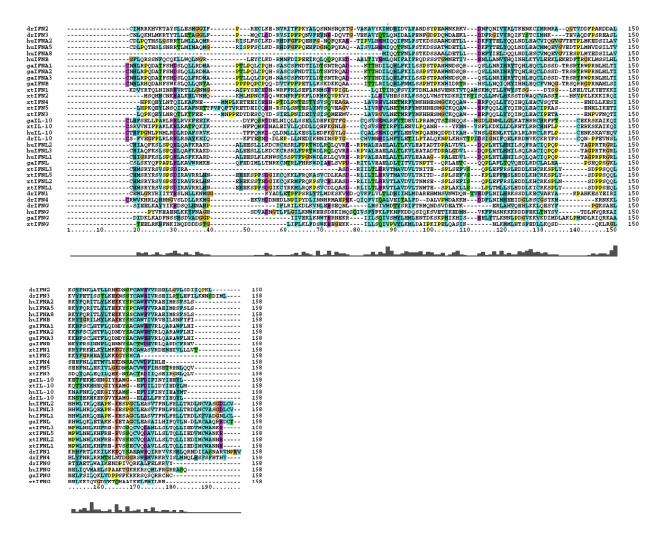
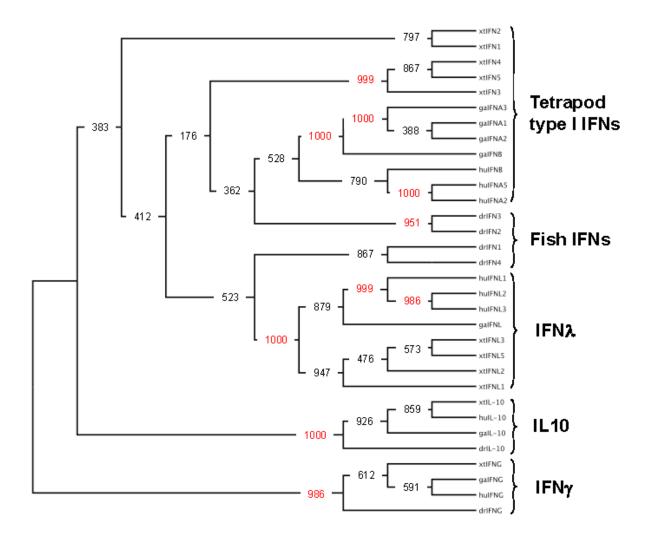


Figure S2 Sequence based alignment of selected type I cytokines. IFN α , IFN α , IFN α and IL-10 from *Danio rerio* (dr), *Gallus gallus* (ga), *Xenopus tropicalis* (xt) and *Homo sapiens* (hu) have been aligned based on protein sequence

Figure S3



Supplementary figure 3: Phylogenetic tree based on the sequence alignment shown in Supplementary figure 2