

factor 3 (ISGF3) complex, which travels to the cell nucleus, where it binds to the ISRE sequence in IFN- α -stimulated gene promoters (154,155,156,157). To repeat, ISGF3 is a complex of three proteins. ISREs are found near the promoters of most genes that are responsive to IFN- α (158). Levy et al. (159) identified the target sequence, present in the human genome, as follows. This sequence is a consensus sequence. The “Y” means pyrimidine:

YAGTTTC(A/T)YTTTYCC.

k. Influence of IFN-Alpha on Gene Expression as Measured by Microarrays

The following addresses attempts to measure IFN- α 's induction of IFN- γ , by measurements of mRNA in peripheral

blood mononuclear cells (PBMCs), using the technique of microarrays. Waddell et al. (160), Lanford et al. (161), Zhu et al. (162), and Ji et al. (163), identified a large number of genes that can be induced by IFN- α . The influence of IFN- α on expression of IFN- γ seems not to have been detected by the methods reported in these publications, even though in vivo data do show that IFN- α stimulates expression of IFN- γ . Dr Jake Liang has acknowledged that IFN- α is a weak inducer of IFN- γ in PBMCs in vitro (164).

According to Dr Robert Lanford, the effect of IFN- α , as it pertains to IFN- γ , may not be to stimulate expression of IFN- γ . Instead, the effect of IFN- α , as it pertains to IFN- γ , may be to potentiate the antiviral effect of IFN- γ (165). This means that the combination of IFN- α and

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