

**EXPRESSION OF INTERLEUKIN-6 RECEPTORS AND NF- $\kappa$ B IN AIDS-RELATED KAPOSI SARCOMA CELL STRAINS****R.T. Bailer, C.L. Ng-Bautista, G.M. Ness, S.R. Mallery**

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**ABSTRACT**

*AIDS-related Kaposi sarcoma (AIDS-KS) is the most common malignancy associated with HIV infection, with an incidence of 10-30% of all AIDS patients. As such, there have been a large number of AIDS-KS cell strains isolated and numerous studies conducted to elucidate the mechanisms of malignancy in this disease. We have reported histological grade associated differences in the ability of AIDS-KS cell strains to proliferate under conditions of minimal growth factor supplementation, with strains derived from high grade lesions having enhanced proliferation potential. Furthermore, we found that this difference in in vitro growth characteristics was not attributed to grade associated differences in autologous growth factor release. These current investigations explored the hypothesis that grade associated growth differences could be attributed to differences in the expression of the components of the IL-6 receptor, or expression/inducibility of the pleiotrophic transcription factor NF- $\kappa$ B. We determined there were no significant grade associated differences in the expression of either component (IL-6R  $\alpha$  chain or gp130) of the IL-6 receptor. However, non-lesional oral derived cell strain lysates from AIDS-KS patients (n=4) contained significantly lower concentrations of both components of the IL-6 receptor than AIDS-KS strains (n=8) and lower concentrations of gp-130 than normal human oral derived fibroblasts (n=2). Comparative analysis of sera concentrations of soluble components of the IL-6 receptor did not demonstrate significant differences between HIV+/KS+(n=7), HIV+/KS-(n=9) and normal (HIV-/KS-) (n=4) populations. Further, no differences were detected in the expression of NF- $\kappa$ B in AIDS-KS cell strains (n=5) derived from both high and low histological grade lesions as compared to non-lesional AIDS-KS cell strain (n= 1) and normal human oral derived fibroblasts (n=2) under conditions of: constitutive/proliferative growth, sera starvation, oxidative stress, and mitogen reintroduction after sera starvation. In conclusion, these investigations have eliminated two explanations for histological grade associated differences for in vitro growth potential of AIDS-related KS cell strains and further substantiated the lack of systemic paracrine cytokine/cytokine receptor effects in AIDS-KS pathogenesis.*