

afforded by vaccines. In the setting of two, phase I/II human immunodeficiency virus-1 vaccine trials of a recombinant canarypox prime, and boosting with either recombinant monomeric gp120 or oligomeric gp160, we assessed the association between specific human leukocyte antigen (HLA) class I serotypes and the presence of cytotoxic T-lymphocyte response measured by  $^{51}\text{Cr}$ -release assay. HLA class I serotypes A11, A24, A33, B46, and B75 were the most common, present in 10% or more of 245 individuals studied. Forty of 187 (21.4%) Thai adults who received either ALVAC-HIV with gp120 or oligomeric gp160 or ALVAC alone had a precursor cytolytic CD8 T-cell response (pCTL). HLA-B44 was positively and significantly associated with a pCTL response (odds ratio 7.6, 95% CI: 2.7-21.2), whereas B46 was negatively associated but not robust when adjusted for multiple comparisons. Responses to Env proteins accounted for the majority (nine of 11) of pCTL activity among those persons with B44. This HLA class I serotype occurred in 9.4% of participants overall (including the placebo group), less commonly than what is reported from populations of European ancestry. These results strengthen the importance of assessing HLA class I distributions in conjunction with studies of vaccines designed to elicit cellular immunity in different populations.

**Tissue Antigens. 2004; 64(3): 251-6.**

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## **IMMUNE RECONSTITUTION FOLLOWING AUTOLOGOUS TRANSFERS OF CD3/CD28 STIMULATED CD4<sup>+</sup> T CELLS TO HIV-INFECTED PERSONS**

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We have previously shown that adoptive transfer of in vitro CD3/CD28 activated autologous CD4<sup>+</sup>T cells results in increased CD4 counts and CD4/CD8 ratios in HIV+ subjects. In this report, analysis of variable beta (Vbeta) chain T cell receptor (TCR) repertoire showed that CD3/CD28 stimulation was able to increase polyclonality within skewed spectra types in vitro. In vivo, two of eight subjects showed increase in TCR diversity and importantly, in no subject did a highly skewed in vivo repertoire emerge. Measurement of proliferative response to alloantigen showed increases following infusions. Response to pharmacological stimulus and lectin via Interferon- $\gamma$  ELISpot assay showed increases in a subset of subjects following infusions. However, interferon- $\gamma$  response to HIV antigens and peptides declined concurrent with stable or diminishing latent infectious viral load in CD4<sup>+</sup>T cells. These data provide further evidence that adoptive transfer of activated autologous CD4<sup>+</sup> T cells can augment the immune system.

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