

**P003** *In vitro* inhibition of SIV infection following *in vivo* immunisation with HSP derived from human cell lines.

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The HIV pandemic has affected 40 million people and there is a pressing need for a vaccine. Early experimental immunisation of macaques with SIV grown in human CD4<sup>+</sup>T cell lines resulted in 85-100% protection from infection. The correlates of protection included immune responses to host cell antigens acquired by the virus during budding from cell membranes, including HLA and CD4. A recent report shows HSP70 is also incorporated into HIV and SIV virions. HSP bound peptides may therefore be a strong candidate responsible for the induction of protective responses in macaques immunised with cellular antigens.

We have immunised macaques with HSP preparations from the human CD4<sup>+</sup>T cell lines used in the early protection studies. Two groups of animals were immunised with a) HSP retaining bound peptides (HSP70-ADP) and b) HSP lacking associated peptides (HSP-ATP). Peripheral blood mononuclear cells from animals immunised with HSP carrying peptides were able to resist *in vitro* infection with SIV whereas cells from those animals immunised with peptide free preparations of HSP were not resistant to infection (P<0.05). The immunological and biochemical basis of this important observation will be explored.