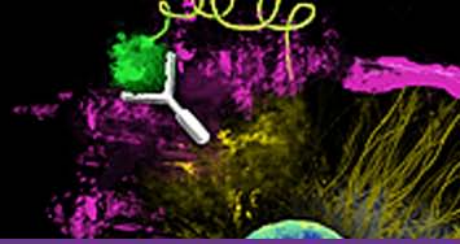

Empowered Antibody Therapies Meeting **August 3-4, 2010**
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Antibody-Lytic Peptide Conjugates for Cancer Therapy

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Esperance is developing its CLYP™ platform technology for targeted delivery of membrane disrupting peptides (MDPs) as payloads to seek and destroy cancer cells. One of the MDPs is CLIP-71, which is a novel amphipathic alpha-helical lytic peptide that has been optimized for its potent cytolytic effects on cancer cells. CLIP-71 was conjugated chemically or recombinantly to anti-Her2 antibodies. *In vitro* and *in vivo* anticancer effects of the antibody conjugates were tested. Her2/neu receptor positive cells (SKOV-3, SKBR-3) and receptor negative (MDA-MB-231) were incubated for 48 hours with the antibody-MDP conjugates or naked antibodies. The IC_{50} values were 27-55 nM. Recombinant antibody conjugated to CLIP-71 was superior to a conjugate containing $(KLAKLAK)_2KLAK$ (IC_{50} 247-338 nM). Her2/neu receptor negative (MDA-MB-231) cells were not killed, indicating that the antibody conjugates specifically targeted cells that expressed Her2/neu receptors. Unconjugated (naked) antibodies did not kill the cells. Intravenous injections of the antibody-MDP conjugates reduced tumor volumes in established SKOV-3 xenografts in nude mice. The naked antibodies were not effective. These results indicate that Esperance's CLYP™ technology is a novel approach to enhance the activity of anti-cancer antibodies. They also show that the antibody-MDP conjugates can be produced by chemical or recombinant methods. Esperance's CLYP™ platform technology is a novel approach to empower antibodies. The potent MDP-antibody conjugates exert their cytotoxic activities via a unique mechanism of action. They can be synthesized recombinantly to produce homogeneous products. Esperance's CLYP™ platform technology is a novel approach to empower antibodies. The potent MDP-antibody conjugates exert their cytotoxic activities via a unique mechanism of action. They can be synthesized recombinantly to produce homogenous products.