HIV Immunotherapy Shows Promise

April 16, 2008

Promising data suggesting that an immune-based therapy can be used to reduce levels of HIV in the body have emerged from research using an animal model at the University of Melbourne. The new research was described earlier this week by Professor Stephen Kent at the Sir Mark Oliphant Conference on Vaccine and Immunotherapy Technologies in Canberra, Australia.

Kent says that his group's experimental therapy, called overlapping peptide pulsed autologous cells (OPAL), can potentially be used in conjunction with antiretroviral drugs, but has several advantages in that it is potentially simple, easier to deliver and should have fewer side effects.

OPAL involves infusing harvested blood cells back into a person with HIV, after the cells have been mixed with peptides—or short proteins—created from snippets of HIV's RNA. "We have found these induce a very strong immune response," Kent says, "enabling the body to fight off both [HIV] and other opportunistic infections in [animal studies]."

The safety and effectiveness of OPAL in HIV-positive people has not yet been determined. Should it prove to be a beneficial treatment option, Kent says, its ease of use makes it a "promising approach for use in Third World countries where modern drug treatment is difficult and expensive to deliver and administer."