## AIDS 2016: Towards an HIV Cure





Today, July 19 2016, the International AIDS Conference (AIDS 2016) kicked off its second day in Durban, South Africe. Today, a press conference held on the topic of

finding an HIV cure was held. The press conference was chaired by Françoise Barré-Sinoussi, the 2008 Nobel Prize in Medicine winner. Barré-Sinoussi received the award for the discovery of HIV decades prior.

Other speakers at the press conference were Dr. Sharon Lewin, Dr. Annemarie Wensing, Dr. Giorgio Bozzi, Dr. Ann Chahroudi, and Dr. Barbara Felder. All are leaders in the field of finding an HIV cure.

Lewin noted that two interventions are the main routes for finding a cure: immunology advances, and gene therapy tools. She said "gene therapy tools could potentially [...] make cells resistant to HIV."

Wensing discussed her study, on blocking the CCR5 entrance receptor. Her research utilizes a bone marrow transplant, similar to what had occurred in the "Berlin patient." Using stem cells with a genetic defect, lacking CCR5, her work showed that these patients have significantly lower viral reservoirs. However, she noted that a number of participants

had immune responses to the genetically-modified stem cells.

Dr. Chahroudi discussed her work on using animal models. Specifically, she used macaques to study Simian Immunodeficiency Virus. Her studied noted that ART suppressed viremia in infant monkeys, but that SIV levels remained high in the gut and brain. She noticed that there was very limited levels of the drugs used in rhesus macaques. She believes that "moving forward, we can use this model to investigage [...] new ways to test remission."

Dr. Felber studies IL-15, an essential cytokine. She and a coresearcher discovered that IL-15 is a heterodimeric cytokine. IL-15 may be used for cancer and HIV immunotherapy. Currently, she is conducting her HIV and cancer immunotherapy in rhesus macaques as well.