

Research Context

The HIV Cure Research Center (HCRC) focuses on HIV Cure Research and is divided into four research units: the virology/sequencing unit, the immunology unit, the immunotherapy unit and the target discovery unit (mainly long non coding RNA). There is close collaboration between these units. The HCRC group pioneered HIV integration site analysis and droplet digital PCR for analysis of patient-derived samples in Europe and performed several clinical studies on HIV reservoir assessment published in journals like Plos pathogens and Elife. Currently further deep sampling studies on HIV reservoir assessment are ongoing.

Current projects focus on new novel technologies to further identify the HIV-1 reservoir based on enrichment strategies using cell sorting, capture based enrichment, and new sequencing technologies like Oxford Nanopore based sequencing. Indeed, the largest caveat in current HIV-1 cure research is the inability to efficiently isolate and characterize latent HIV-1, mainly because of the extremely low abundance of HIV-1 infected cells in patients on effective treatment. Taken together, novel technologies should aid to provide deep insights into the composition and dynamics of the HIV-1 reservoir.

We are looking for international collaborations to further fuel our research.