



Project summary

Full title:	European Vaccines and Microbicides Enterprise
Research topic addressed:	LSH-2005-2.3.0-2
Project number:	037611
EC contribution:	€15.5M
Duration in month:	60
Type:	NoE
Starting date:	1 January 2007

The successful development of preventative strategies against HIV-1 (microbicides, vaccines or their combined effects) would provide a pivotal turning point in global efforts to combat the pandemic spread of AIDS providing an incalculable impact on solving societal problems associated with this disease. The principal aim of this proposal is to bring together EU scientists from both microbicide and vaccine fields to embrace a coordinated approach to HIV-1 prevention research. Partners in the EUROPRISE consortium represent 13 projects funded by the European Commission in the sixth Framework as well as 5 projects funded by the Gates Foundation. These projects involve 33 institutions from 22 countries. In this respect, EUROPRISE is the first organisation, both in Europe and internationally to deliberately bring these groups together in a truly integrated fashion. EUROPRISE will promote an integrated program of research, coordinating a wide portfolio of activities encompassing the whole pipeline of vaccine and microbicide development from early discovery through to early clinical trials. This unique approach places the Network at the international forefront of understanding the interface between these two technologies, pursuing a critical path to the development of effective HIV-1 prevention strategies.

Background

Although therapeutics for HIV/AIDS continue to improve and initiatives for making these products available in developing countries have been instigated, ultimately the global incidence of HIV infection is critically dependent upon development of safe and effective strategies to block and prevent HIV transmission. The design and implementation of effective microbicide and vaccine strategies, alone and possibly in combination, will be key to achieving this goal. Ideally, microbicides will provide chemical, and vaccines immune protection (respectively), at the mucosal surfaces of the vagina and rectum, which represent the major portal of viral entry. The combination of these approaches may maximize potential synergy between both technologies. It is now well established that under most circumstances, vaccines delivering non-replicating antigens fail to induce sufficient mucosal responses and immunological memory to provide protection against high

viral challenge. In contrast, while it may be technically easier to develop microbicides that prevent transmission when applied before intercourse, their duration of protection is likely to be short lived and their efficacy will be critically dependent upon user compliance. To date both fields have been slow to work together in the development of products that provide multiple levels of protection. This network is focused on the premise that microbicides and vaccines that target multiple stages of mucosal transmission will have the best chance of success. Since both target the same processes there is clear overlap between the two fields. The aim of this proposal is to bring together, for the first time, EU scientist working in both microbicide and Vaccine fields to maximize research synergy in development of novel approaches to provide effective protection against HIV-1 transmission.

Aim

The successful development of preventative strategies against HIV-1 (microbicides, vaccines or their combined effects) would provide a pivotal turning point in global efforts to combat the pandemic spread of AIDS providing an incalculable impact on solving societal problems associated with this disease. The principal aim of this proposal is to bring together EU scientists from both microbicide and vaccine fields to embrace a coordinated approach to HIV-1 prevention research. In this respect, EUROPRISE is the first organisation, both in Europe and internationally to deliberately bring these groups together in a truly integrated fashion. EUROPRISE will promote an integrated program of research, coordinating a wide portfolio of activities encompassing the whole pipeline of vaccine and microbicide development from early discovery through to early clinical trials. This unique approach places the Network at the international forefront of understanding the interface between these two technologies, pursuing a critical path to the development of effective HIV-1 prevention strategies. Delivery of these goals will be achieved through the following scientific and technical **objectives**:

1. *Standardization and harmonization of research tools.*
2. *Identification of new HIV/AIDS vaccine and microbicide candidates and combinations to prevent HIV/AIDS.*
3. *Establishment of clinical development pathway for vaccines and microbicides within a European framework.*
4. *Provision of Scientific training in microbicide and vaccine development.*
5. *To facilitate access to information relevant to HIV-1 microbicides and vaccines.*
6. *Provision of a single focus for European HIV-1 microbicide and vaccine research*