European HIV Vaccine Alliance (EHVA): an EU platform for the discovery and evaluation of novel prophylactic and therapeutic vaccine candidates

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OUR CHALLENGES:
Despite enormous progress in the prevention and treatment of HIV/AIDS, the global response cannot keep pace: 35 million people are living with HIV worldwide with ca 6,000 new infections each day. Numerous HIV prevention strategies (such as PrEP and PEP), though proven successful, are difficult to sustain long-term. A vaccine still represents the most effective tool in the combat against HIV from a public health perspective. To date, many prophylactic and therapeutic vaccine concepts have been developed and several efficacy trials have been conducted but with limited success. There is an urgent need to develop better vaccines and tools predictive of immunogenicity and of correlates of protection at the early stage of vaccine development to mitigate the risks of failure.

EHVA APPROACH
To address these complex and challenging scientific issues, EHVA aims to develop a Multidisciplinary Vaccine Platform through a global and innovative alliance notably:

- Multidisciplinary expertise from vaccine discovery, to immune monitoring to clinical development
- State-of-the-art innovative technologies to profile immune responses and virus reservoir
- Access to large cohort studies bringing together top European clinical centres in the fields of prophylactic and therapeutic vaccines
- Access to a panel of experimental HIV vaccines under clinical development as benchmark
- Liaison with African leading scientists/programs fostering future testing of EHVA vaccines in Sub-Saharan Africa
- Engagement of industrial expertise for downstream vaccine development

EHVA OBJECTIVES
EHVA plans to develop and implement:

- Discovery Platform with the goal of generating novel vaccine candidates inducing potent neutralizing and non-neutralizing antibody responses and T-cell responses
- Immune Profiling Platform with the goal of ranking novel and existing (benchmark) vaccine candidates on the basis of the immune profile
- Data Management/Integration/Down-Selection Platform, with the goal of providing statistical tools for the analysis and interpretation of complex data and algorithms for the efficient selection of vaccines
- Clinical Trials Platform with the goal of accelerating the clinical development of novel vaccines and the early prediction of vaccine failure.

ABOUT EHVA
EHVA brings together 39 partners from 11 countries in Europe, 4 in Sub-Sahara Africa and the US, involving leading scientists in the fields of molecular biology, structure biology, vectorology, adjuvants, delivery, immunology, clinical science and biostatistics.

Furthermore, EHVA bridges industrial expertise with academic excellence by engaging directly world leading pharmaceutical companies in the consortium, a partnership essential for the discovery and development of an effective vaccine.

EHVA is coordinated by the Institut national de la santé et de la recherche médicale (INSERM) and the scientific leadership is carried out conjointly with the Lausanne University Hospital (CHUV).

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