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**SmartGene and the Service de Virology at Pitié-Salpêtrière, Paris, France  
Enter Collaboration on HIV Genotyping and Resistance Assessment by  
Sequence Analysis**

**November 5th, 2008: Zug, Switzerland** - SmartGene, a provider of innovative services for the management and analysis of genetic data, today announced that it has entered into an agreement with the HIV clinical and research group led by Professor Vincent CALVEZ of the Service de Virology at Pitié-Salpêtrière Hospital, Paris, France (<http://www.aphp.fr/index.htm>).

Under this collaboration, Professor Calvez's group at Pitié-Salpêtrière will utilize SmartGene's advanced technology and integrated Web-based services to support more rapid and precise genotyping of HIV-1 and for research into and assessment of resistance to established and new antiviral drugs.

The broad and increasing arsenal of drugs to treat HIV can suppress viral replication in the body and therefore postpone disease progression, thus allowing patients to live longer with enhanced quality of life. However, the capacity of HIV-1 to mutate and become resistant to one or more of the drugs administered can compromise treatment. In most of such cases, analysis of viral sequences is performed in order to determine to which drugs the virus of the patient became resistant and to suggest which drugs may still be valid options, in a new therapeutic regimen.

SmartGene offers a proprietary Web-based software service for HIV-1 genotyping and drug resistance which allows easy and straight-forward analysis of viral gene sequences (protease, RT, gp41, Integrase) in order to determine resistance-relevant mutations. Rule-based algorithms from different



authors are implemented or accessible via SmartGene to help clinicians and researchers assess the resistance pattern for a patient. SmartGene's technology speeds up the process of HIV-1 genotyping and resistance testing.

"We are delighted to have Professor Calvez's group working with our technology," said Stefan Emler, CEO of SmartGene. "Professor Calvez and his group have a world-wide reputation as a leading laboratory in the field of HIV-1 research and perform genotyping and drug resistance analysis for both diagnostic and research purposes. The laboratory of Professor Calvez' group is known for embracing new technologies and will act as a reference site for SmartGene, giving important feedback and guidance for our further development, as the science of HIV evolves"

#### **About Professor Calvez's HIV group at Pitié-Salpêtrière:**

Professor Calvez's group at Pitié- Salpêtrière is one of the leading laboratories in HIV-1 research in France, and also worldwide, and has specialized in characterization of antiretroviral resistance. This laboratory was founded twelve years ago by Prof Calvez and Dr Marcelin and is involved in all aspects of antiretroviral resistance research.

Professor Calvez stated: "The SmartGene system provides many useful solutions both for hospital and medical practice, and for research purposes in the field of HIV. The reasons why we have chosen these services are the level of expertise that SmartGene has built in the field of management and analysis of complex genetic data from HIV, as well as the potential of the SmartGene technology to adopt and integrate innovation to support our research on increasingly complex viral resistance".

#### **About SmartGene:**

SmartGene is a privately-held company based in Zug Switzerland, providing web-based services worldwide through its subsidiaries in Lausanne, Switzerland and Raleigh, North Carolina, USA. SmartGene's proprietary Integrated Database Network System (IDNS™) platform offers customers integrated suites of functionality to facilitate sequence-based analysis for a variety of applications from infectious pathogens to human genetics. Constant updates to reference data and interpretive algorithms keep SmartGene's customers in step with evolving science and improve the accuracy of sequence interpretation. SmartGene's integrated services increase the speed to definitive result for sequence-based analysis and improve workflow in the laboratory. Current modules from SmartGene address Bacteria, Fungi, HIV, HCV, multi-locus sequence typing (MLST) for epidemiology of bacteria and viruses, and HLA genotyping. Future applications will address human genetics, and food and environmental pathogens. Discover more at [www.smartgene.com](http://www.smartgene.com).