PARTNERING FOR ™
CURE

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Ruxandra Calin is a research physician currently working in the infectious diseases department of the Pitie-Salpetriere Hospital, in Paris, and is a specialist in HIV and hepatitis C (HCV)/ hepatitis B (HBV) coinfection.

She graduated medical school in 2007 and in her first three years of residency she worked in Romania at the "Matei Bals" National Institute of Infectious Diseases, University of Medicine and Pharmacy, Bucharest. In 2009 she moved to Paris and continued her study, gaining an infectious diseases specialist degree and completing her thesis on HIV-HCV coinfection (University of Medicine and Pharmacy, Bucharest). The Pitie-Salpetriere Hospital where she is currently based maintains a strong clinical research team led by Professor Christine Katlama, which fuelled her interest in the study of HIV.

Ruxandra's passion for research has enabled her to act as co-investigator on numerous projects in the field of HIV, vaccinology and HIV-HCV coinfection, and she has co-authored several peer-reviewed articles in publications such as the *Journal of Clinical Virology*, *AIDS* and *JAC*.

In HIV infected patients, one of the main obstacles to cure is trying to understand HIV reservoirs. It is currently known that these are established in the body very early after contamination, however to-date it has not been possible to sufficiently characterise these reservoirs to establish ways of controlling them with therapy. Therefore, a key milestone in HIV cure is to understand the mechanisms that explain how certain HIV patients are well controlled after years of HIV therapy and how the virus reduces to very small reservoirs. Furthermore, there is a need to characterise the reservoir in these patients and to compare it with the reservoir of patients that are able to control HIV in the absence of treatment. This challenge forms the basis of the *Partnering for Cure* funded research programme that Ruxandra and her team, led by Professor Katlama, are currently working on.

To-date they have recruited 20 patients that have well controlled HIV infection after years of treatment and have a low level of HIV reservoir. They have taken blood samples and hope to isolate the different CD4 cell subsets, sequence the viral genome in each subset and test whether the virus is capable of replication or not. They have finished the patient recruitment phase, a challenge in itself as the patients were required to have particularly low HIV reservoirs, and have moved on to data analysis. The first results are due in November 2014.

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