



Newsletter

Federica Sallusto, "Cellular Immunology" Group Leader

NEWS

PhD awarded to Silvia Olivari.

Silvia Olivari from the lab of Maurizio Molinari defended her phd thesis on the 22 of march in the department of biochemistry of the University of Fribourg in the lab of Prof. Sandro Rusconi. she has recently joined the lab of Jeremy Luban.



Silvia Olivari

EMBO Fellowship to Janine Stubbs.

Janine Stubbs has been awarded a prestigious long-term post-doc fellowship from the European Molecular Biology Organization (EMBO) for two years. EMBO is sponsored by twentyfive governments with it's headquarters in Heidelberg, Germany. EMBO has approximately 1200 members in Europe and 100 associate members worldwide. The organization is involved in the publication of scientific work, awards a number of different fellowships, and runs scientific courses and workshops.



Established in 1966, the Fellowships Programme has gained an excellent reputation due to its rigorous selection process. The success of the Programme is due to the excellent involvement from the Fellowship Committee, EMBO members and young investigators who volunteer each year to assess candidates and proposals. Through the international exchange of persons, knowledge and skills in life science research, a new network of scientists has been formed and the EMBO family expanded.

Integrase, a new target for HIV Drugs.

The work of Jeremy Luban to be published in Virology this year. Scientists at IRB have uncovered important new information about the molecular machinery used by HIV to infect cells. HIV is the cause of AIDS and information about how it infects cells is critical to the development of new ways for stopping this deadly disease.



Jeremy Luban

HIV makes a protein called Integrase which is essential for this deadly virus. In other words, without Integrase, HIV-1 cannot infect people, and cannot cause AIDS. One of the sinister characteristics of HIV-1 is that it literally splices its genetic material into the chromosomal DNA where our genetic material is located. In effect, HIV becomes a gene like any other that we possess. It cannot be eliminated and remains a part of us as long as we live.

Integrase protein is the "machine" that HIV uses to splice itself into our DNA. Very much like a film editor who cuts a reel of film and splices in footage from a newly filmed scene, Integrase cuts our chromosomal DNA and inserts viral DNA into the gap. It has been known for some time that Integrase must also process the two ends of the viral DNA before this splicing event can be successful. How Integrase can process both ends of the viral DNA at the same time has been an ongoing

mystery but it is believed that 4 Integrase molecules associate with each other in order to accomplish this complex task. The discovery by the IRB researchers explains how 4 Integrase molecules associate with each other. They show that by disrupting the association of these 4 molecules the virus is no longer able to reach the DNA-containing nucleus of the cell and thus fails to infect the cell. Currently, AIDS can be prevented in HIV-infected people with drugs that block HIV proteins called reverse transcriptase and protease. HIV Integrase offers a new target for anti-HIV drugs; the first drugs of this class are currently under review by regulatory agencies in the USA.

IRB Report card on Equality.

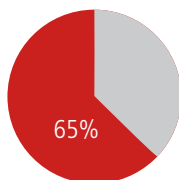
According to a recent report by the Swiss Federal Department of Statistics, the percentage of female students in Switzerland is close to parity (47%). This number diminishes however with each step of the scientific career; 44% of those receiving their degree are women and only 38% receiving the doctorate degree. Once started on their post-doc career 27% of the positions of Grade A researchers* are women, and this number drops further still in universities, where only 17% of the research positions are held by women. These statistics, according to the report, underline two different kinds of inequality: vertical inequality (women are more rare as you move up the ladder), and horizontal inequality (women are more represented in certain domains, and much less in the life sciences, exact sciences and engineering). The study compiles the results of the Swiss portion of a European study called "She Figures 2006" which compares results from across Europe with Japan and the US.

So how does the IRB stack up against this trend? After compiling our own statistics we contacted the author of the report at the Swiss Federal Office of Statistics. "The proportion of women in your institute is much higher than the national average and more in line with the international trend. Southern countries tend to have a higher proportion of women in scientific positions compared with Switzerland,

Germany and Austria." In fact women make up more than 65% of the employees at the IRB. The table below breaks these numbers down for position.

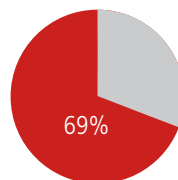
*Grade A researchers are defined as those who have reached the top of the hierarchy.

Total Employees



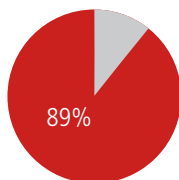
F 49 (65%)
M 26 (35%)

IRB Students



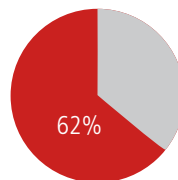
F 20 (69%)
M 9 (31%)

IRB Technicians



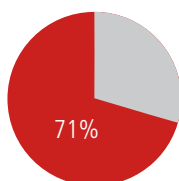
F 8 (89%)
M 1 (11%)

IRB Scientists



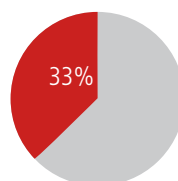
F 13 (62%)
M 8 (38%)

IRB Admin



F 5 (71%)
M 2 (29%)

IRB Group Leaders




F 3 (33%)
M 6 (67%)

F
M



The women of the Institute

 Special thanks to
The Helmut Horten Foundation