



CRI

AIV courses are held at the Center for Research and Interdisciplinarity (CRI), which also hosts the Liliane Bettencourt Frontiers in Life Sciences (Frontières du Vivant, FdV) doctoral school program. The CRI is an ideal environment for exchanges among students, faculty and visiting professors.

Many French and foreign researchers are participating in the activities of the CRI, through courses, seminars, workshops and conferences, providing a permanent link between students and the research world. Contributors come from: *Harvard, MIT, Weizmann, Stanford, CNRS, Paris Descartes, Paris Diderot, ENS, INSERM...*

The CRI also hosts scientific discussion clubs in which AIV students take part (e.g. *Synthetic Biology, Science in Developing Countries, Artificial Intelligence, Neurobiology, Networks, Information and Web...*)

The students have seminar rooms, a fully equipped computer room, a dedicated library and a lounge at their disposal.



Francesco (Alvia*) (phyc)
 Claude (phyc)
 Martin (French) (phyc)
 Jessica (bio)
 Elifsu (bio)
 Sakina (bio)
 Benjamin (bio)
 Lydia (X-maths-bio)
 Xavier (pharma)
 Maxima (chimie-bio)
 Claire (chimie)
 Victor (X-bio)
 Jérémie (chimie)



apply online until **June 15th 2011**
www.aiv-paris.org/en/admission/

Open Doors at the CRI
check our website for the schedule

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Interdisciplinary Approaches to Life Science

cursus Liliane Bettencourt

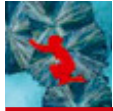
2011 - 2012

Master of Science



«None of us is as smart as all of us»





Master 1

The first year of the AIV Master's degree program provides a solid base in quantitative biology at the interface of physics, mathematics, and computer science through the study of such emerging domains as systems biology and synthetic biology.

1st semester courses

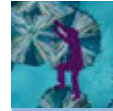
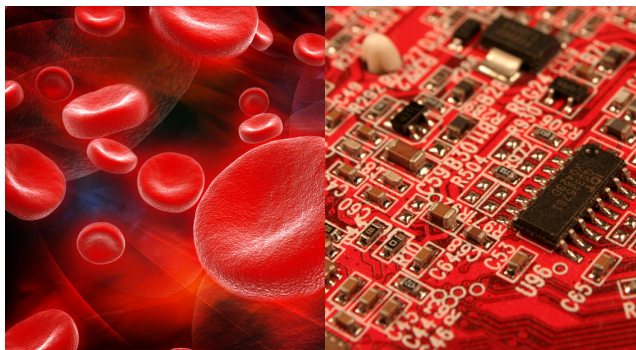
Systems Biology
Synthetic Biology
Dynamics of Living Systems
Computational Biology
Experimental methodology
Statistics for System Biology
Science & Medicine

2nd semester iGEM

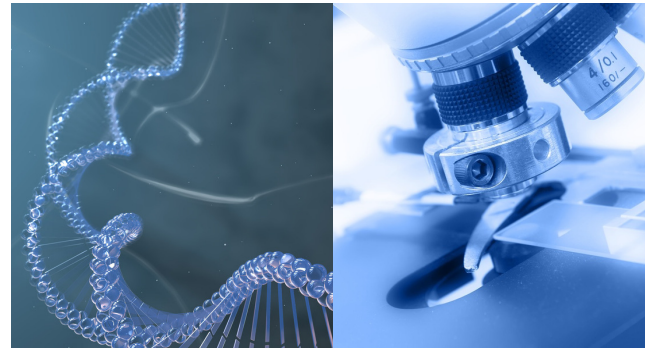
Scientific Communication
5 months internship
or iGEM competition

Students are also introduced to methods of statistical analysis and mathematical modeling, as well as to sophisticated technologies (*nano-fabrication, fluorescence microscopy, molecular forces measurements, etc.*) which are used to quantify the properties of living systems. Students can participate in external modules to acquire or strengthen a specific knowledge.

During the second M1 semester, students "learn to do research through research" during an internship in a laboratory of their choice in the Paris area, or by participating in the iGEM Paris Liliane Bettencourt team, which has already won prizes and medals in the international iGEM synthetic biology competition organized each year by the MIT.



Master 2



During the M2, students deepen their knowledge of life sciences, develop their ability to critically analyze scientific works, and acquire the capacity to pose pertinent scientific questions.

The M2 starts with a workshop in which all AIV students take part, aimed at creating interdisciplinary research projects.

The weekly Friday afternoon M2 courses, throughout the year are geared to developing AIV students' capacities to read and analyze current scientific articles, pose scientific questions and devise experimental and theoretical venues in response.

The remainder of the M2 curriculum is devoted to research, through three 14 weeks research internships, including at least one that is theoretical and one experimental.

Note: all courses are in English, as many students from around the world enter the AIV Master every year.

3rd & 4th semesters

Project writing workshop
Critical analysis of research articles
Bibliography project
Scientific debate and development of thesis project
Networks and dynamics
ICT & Health

3 research internships



Questions?

How to apply for admission to the AIV program?

Paris-Diderot and Paris-Descartes Universities jointly sponsor the AIV Master's Degree program, as described in their respective catalogues. It is also possible to take the second year of the AIV program as a specialization track in the Physics of Biological Systems Master's degree program at Paris-Diderot or as part of the S2I2 curriculum of the Paris Descartes/ParisTech joint BioMedical Engineering (BME) curriculum. Students may apply to Master 1 or Master 2, depending on their previous experience. After evaluation of their written applications, candidates have a personal interview before admission to the AIV program.

Backgrounds of students entering the AIV Master's program?

The AIV master's program is interdisciplinary. Students come from many disciplines (*biology, physics, medicine, mathematics, chemistry, computer science...*) and from very different backgrounds (*universities, medical schools, engineering schools students and graduates...*). Prospective candidates should not hesitate to get in touch with us, and are most welcome to attend a Friday seminar.

What do AIV students do after completing the AIV program?

More than 80% follow a PhD program either in France or elsewhere (*CNRS, INSERM, INRA, INRIA, Rockefeller, Harvard...*); others work for the industry.

