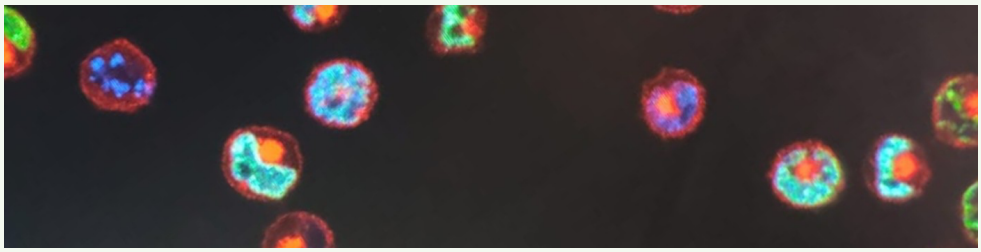

3 R and Genome Stability

Jean-Charles Cadoret and Marc Nadal

Effectives: 16
Language: English
Prerequisites:
The same as the M2 Genetics

Where?
Paris-Rive Gauche site
CEA Fontenay-aux- roses

When?
27-31 October 2025 and
5-9 January 2026

Evaluation:
Written exam and
oral presentation

Questions:
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Number ECTS: 6

Total numbers of hours: 48h

Teaching format:
Lectures & pratical

Teaching objectives
The aim of this course is to detail the various fundamental molecular mechanisms that ensure stable transmission of genomic information and their deregulations in different organisms. The consequences of deregulations will be analyzed, including their societal aspects.

Teaching outline
This course is devoted to present current concepts and new experimental approaches in the 3Rs (DNA Replication, Repair and Recombination) and genome stability in various living organisms.
The fundamental molecular mechanisms ensuring stable transmission of genomic information and genome maintenance will be detail.
Their deregulations and their consequences will be analyzed, including their medical, societal and evolutionary aspects.
The experimental part of the course will take place in the Genetic Stability, Stem Cells and Radiation joint research unit. Students will work in pairs in the unit's teams, with a general presentation of the results obtained by the students at the end of the training.