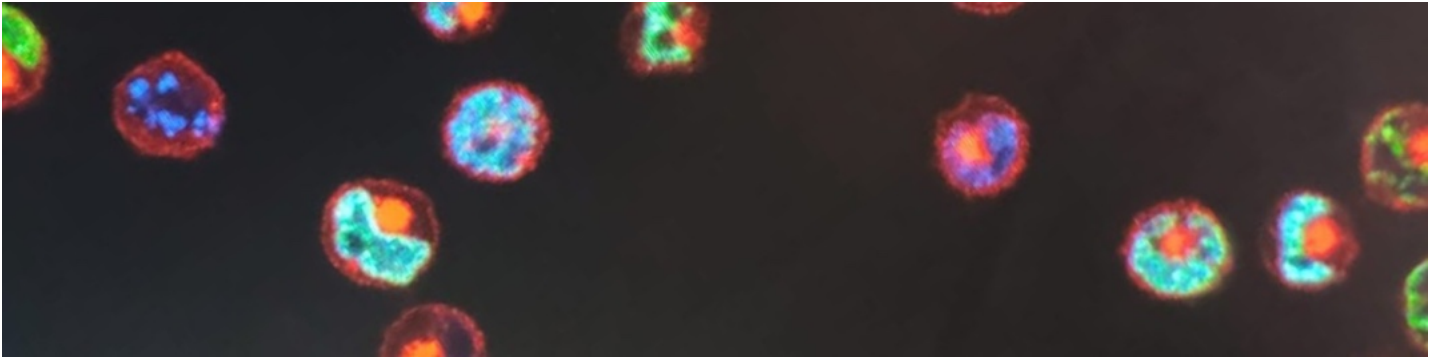




Cours

DNA Replication, Recombination and Repair (3 R) and Genome Stability 2026-2027

Codirectors of the course
Jean-Charles Cadoret et Marc Nadal

The course is divided into two parts :

**The first part consists of a series of conferences.
These will be held from 7 to 11 December 2026
on the Paris Rive Gauche campus of Université Paris Cité.**

**The second part consists of a practical training in laboratories of the CEA.
This will take place from 14 to 18 December 2026
on the CEA's Fontenay-aux-Roses campus.**

PART I Lectures

Monday 7th December 2026

09h00-10h00 Welcome and information about the course

Jean-Charles Cadoret & Marc Nadal

Room RH02B, Buffon

10h00-13h00 *Mechanism and Regulation of Homologous Recombination
in DNA Repair*

Eric Coïc, CEA, Fontenay-aux roses

Room RH02B, Buffon

15h30-18h30 *Transposable Elements: Parasites that Shape Genome Evolution*

Pascale Lesage, Institut de Recherche Saint Louis, Paris

Room RH02B, Buffon

Thuesday 8th December 2026

10h00-13h00 *DNA repair in space and time : the role of 3D genome folding*

Karine Dubrana, CEA, Fontenay-aux roses

Room 273B, Lamarck

14h00-17h00 *Meiotic recombination : a specialized version of
homologous recombination essential to fertility*

Emmanuelle Martini, CEA, Fontenay-aux roses

Room 273B, Lamarck

Wednesday 9th December 2026

09h00-12h00 DNA Topology, Topoisomerases, and Human Health

Neil Osheroff

Room 273B, Lamarck

14h30-17h30 *DNA topology and topoisomerases in genome stability in bacteria.
(by Zoom)*

Marc Drolet, Université de Montréal, Canada

Room 273B, Lamarck

Thursday 10th December 2026

09h00-12h00 *Unraveling genome stability associated with chromosomal
translocations: from primary cells to tumor cells*

Erika Brunet, Imagene, Paris

Room RH02B, Buffon

14h00-17h00 *Structure and Evolution of the DNA Replication Apparatus*

Ludovic Sauguet, Institut Pasteur, Paris

Room RH02B, Buffon

Friday 11th December 2026

09h00-12h00 *How single molecule approaches contribute to
the study of DNA repair.*

Terence Strick, IBENS, Paris

Room RH02B, Buffon

14h00-17h00 *Alternative DNA double-strand break repair in immune
and cancer cells.*

Ludovic Deriano, Institut Pasteur, Paris

Room RH02B, Buffon

17h00-18h00 *Exam*

Jean-Charles Cadoret & Marc Nadal

PART II Experimental works

**The practical training will be done in the IRCM-SGCSR
located 31, avenue de la Division Leclercq, 92260, Fontenay-aux-Roses
It will be held from :**

Monday 14th December 2026 to Friday 18th December 2026

Friday afternoon, the students will present their works.

EVALUATION

The oral participation of each student will be mandatory (worth 10% of the final mark).

At the end of the lecture series each student must submit a written final synthesis based on at least two or three different lectures (worth 40% of the final mark).

The introduction must clearly indicate the scientific field, the theme to be developed in the rest of the synthesis as well as providing a short survey of the state of research on this theme.

The following points will be taken into account in the assessment:

- Clarity of the scientific question
- Originality
- The relevance and accuracy of information
- The relevance of the presentation plan
- The quality and precision of the language

During the second week of the course, which will take place in the CEA laboratories, pairs of students will be assigned to a supervisor who will evaluate the work done by each student during the week (*worth 20% of the final mark*).

The last afternoon will be devoted to an oral presentation in English by pairs of students. They must show the experimental work carried out during the week. The two students will be evaluated separately (*worth 30% of the final mark*).

The following points will be appreciated:

- Clarity of aim and question addressed
- Explaining the suitability of the methods used in relation to the expected results.
- The relevance and accuracy of the information
- The relevance of the presentation plan
- The quality and precision of the language used
- The quality of the oral presentation and the slides
- The quality of the oral presentation and slides;
- The relevance of the answers to the jury's questions.