Université Paris-Saclay

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Add to Compare

M1 Genome biology - Versailles campus

Master's degree

Specialisation Biologie moléculaire et cellulaire

Enrolment type

Formation initiale

Formation continue

Language(s) of instruction

English

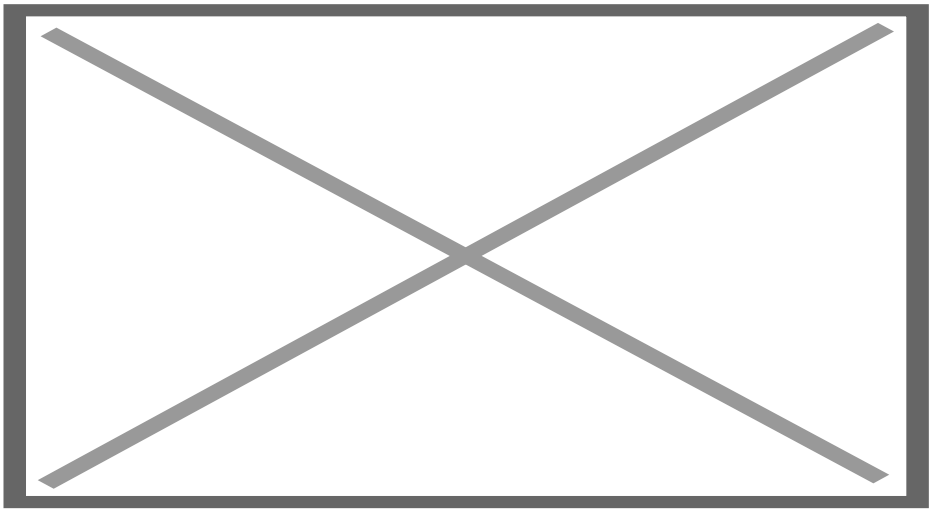
French

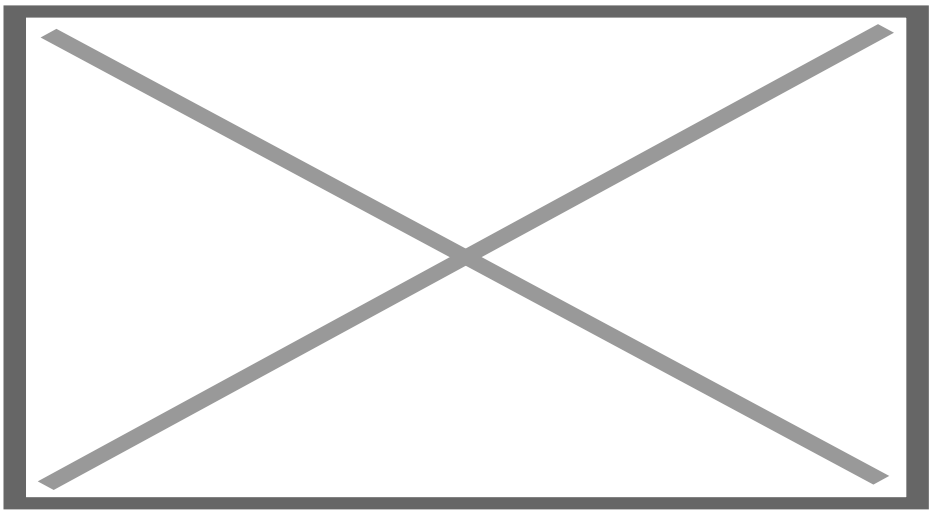
Do you have a passion for genetics, molecular biology and innovation in the life sciences? Join the Genome Biology course. This course offers a curriculum of excellence, combining theory and practice, to understand the structure, dynamics and functioning of genomes, their regulation and applications in biomedical research and biotechnology.

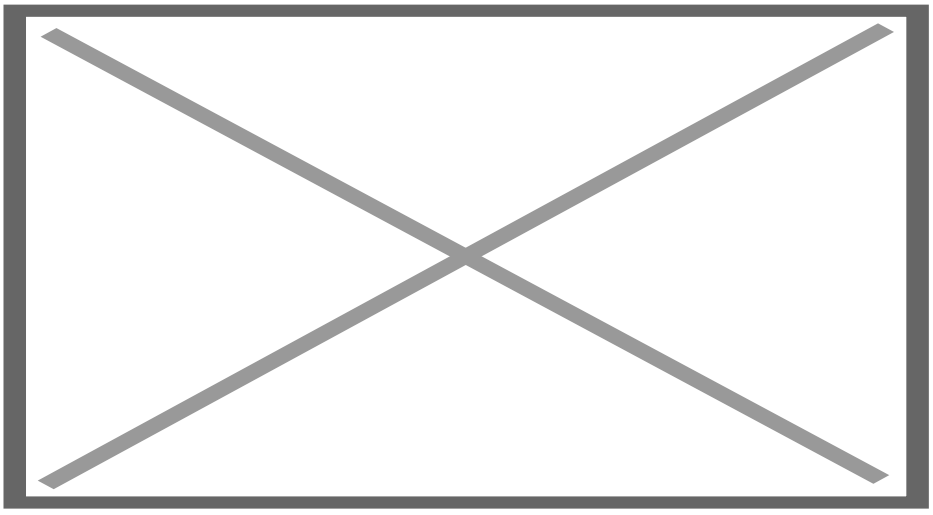
The **1st year Master's BMC Genome Biology** is organised around four blocks of knowledge and competencies: **Methods and Fundamentals for the Study of Living Organisms** (12.5 ECTS) A springboard to an integral understanding of the life sciences! Strengthen key disciplines (scientific English, cellular and molecular biology, biochemistry, cell signalling and genomics) while developing the essential methodological competencies for analysing biological systems. **Genome Biology Major** (25 ECTS) Give your 1st year Master's a specific focus by choosing from among the many TUs offered in the core of your course. **Minor (10 ECTS)** Broaden your scientific culture to develop a cross-disciplinary approach. **Immersion in Research** (12.5 ECTS) Dive right into the heart of research: Draft a bibliographic dissertation and complete an 8-week laboratory internship. For the more inquisitive, combine the core TUs of two Majors to develop a double course.

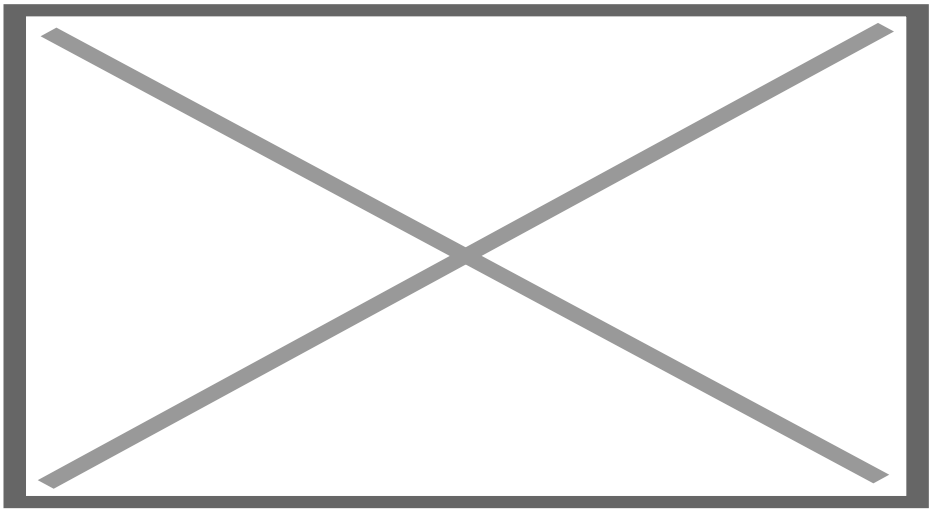
Télécharger la fiche détaillée

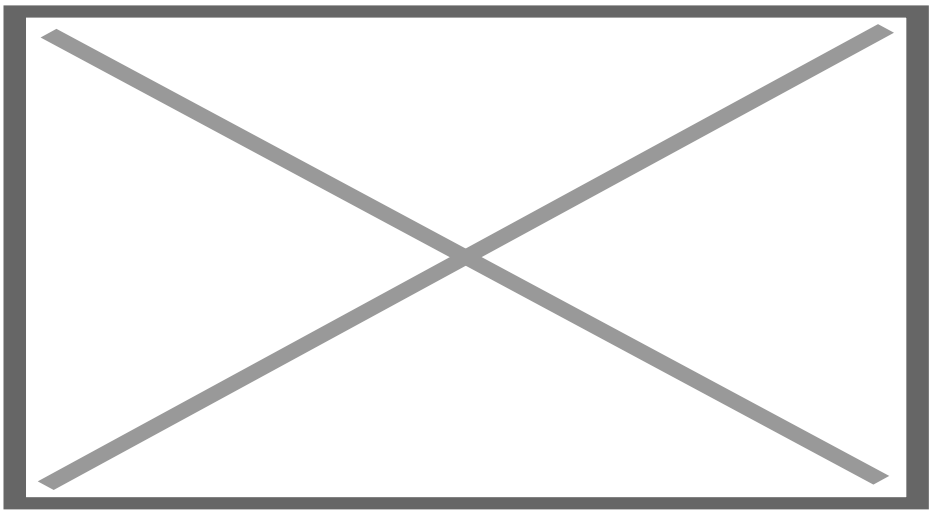
Apply Now











Information

- Overview
- Application requirements
- Schedule

Présentation

Skills

Competency 1: Scientific approach C1. Take a scientific approach, develop innovative ideas and produce new knowledge. Competency 2: Expertise, critical thinking and self-training C2. Acquire highly specialised disciplinary knowledge and methodologies in one field and at the interface of several fields of work (complex interdisciplinarity) Competency 3: Scientific communication C3.3: Extract and scrutinise relevant information from scientific documents or lectures in English. Competency 4: Professional soft skills C4. Analyse and adapt actions to a professional context

Objectives

Le parcours "Biologie des génomes" vous prépare à décrypter la structure, le fonctionnement, l'évolution et les altérations des génomes. Vous y **consoliderez vos bases disciplinaires**, vous apprendrez à **analyser la littérature scientifique**, à **mener des projets** et **travailler sur des problématiques concrètes**, tout en ayant la liberté de **personnaliser votre parcours** selon vos envies et vos ambitions. *Construisez dès maintenant votre parcours à l'aide de l'outil en ligne : [lien].*

En particulier, vous explorerez les multiples échelles de régulation génétique et épigénétique de l'expression des gènes, avec un accent sur la génomique fonctionnelle et ses applications. Vous apprendrez également comment la diversité génétique, à l'échelle individuelle et populationnelle, module les phénotypes et contribue à la susceptibilité à certaines pathologies.

Vous développerez vos compétences sur des outils expérimentaux et technologiques de pointe (transgénèse, modèles viraux, biotechnologies…), ainsi que sur la bioinformatique et les analyses multi-omiques, essentiels pour exploiter les grands jeux de données et relever les défis rencontrés dans les métiers de la génomique moderne.

Vous développerez une expertise à la fois pratique et conceptuelle, vous préparant aux carrières de la recherche fondamentale ou appliquée dans des domaines en plein essor, tels que la biomédecine, les biotechnologies et la génomique appliquée

Débouchés

Career prospects

After a Master's + PhD: researcher or lecturer
Research & Development Engineer
Research and Innovation Manager
Research or Design Engineer
Research professions

Further Study Opportunities

M2 Tissue, Cell and Gene Biotherapies
M2 Gene, Cell, Development and Diseases
M2 Genetics, Genomics, Epigenetics and Evolution
M2 Human Genomics In Biotherapy, Health and Disease
2nd year Master of Oncology

2nd year Master's Study coordinators in the healthcare field
2nd year Master's Training in Higher Education in Life Sciences: 'Agrégation' Biochemistry-Biological Engineering
2nd year Master's Training in Higher Education in Life Sciences: 'Agrégation' Life Sciences - Earth and Space Sciences

Admission

Admission Route

Life Sciences
Life and Earth Sciences

Capacity

Available Places

7

Target Audience and Entry Requirements

Hold a National undergraduate degree in Life Sciences or Life and Earth Sciences, obtained before September 1st of the academic year for which you are applying. Have a solid foundation in the fundamentals of biology: Molecular biology, cell biology, biochemistry, genetics. Must have validated TUs in the 2nd/3rd year undergraduate degree in line with the themes of the relevant course. For international French-speaking students: Have a diploma equivalent to an undergraduate degree in Life Sciences, guaranteeing the same prerequisites, obtained before 1st September of the academic year for which you are applying. If your full-time academic programme is highly specialised, we recommend that you first apply for a 3rd year undergraduate degree in Life Sciences (National diploma). Required level of French: C1 (certification). For English-speaking international students: You may apply to the International track in France if you graduated with a Bachelor degree, major in Biology, or if you will graduate before Sept 1st of the academic year for which you apply.

Période(s) de candidature

Inception Platform

From 15/01/2026 to 16/03/2026

MonMaster Platform

From February 17th to March 16th, 2026

To find out which platform you should apply through, please see the Masters' applications and enrolment page.

Supporting documents

Compulsory supporting documents

Motivation letter.

All transcripts of the years / semesters validated since the high school diploma at the date of application.

Curriculum Vitae.

Additional supporting documents

Certificate of French (compulsory for non-French speakers).

VAP file (obligatory for all persons requesting a valuation of the assets to enter the diploma).

Cette fiche n'est pas demandée si vous êtes ou serez diplomé·e d'une Licence ou d'un Bachelor obtenu en France ou à l'international.
Programme

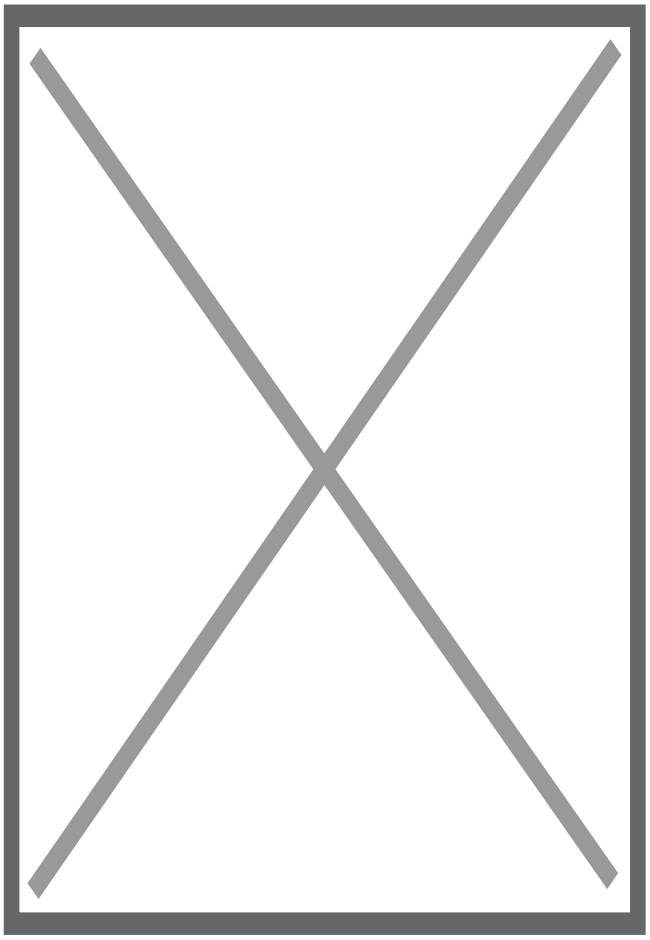
Subjects	ECTS	Semester	Lecture	directed study	practical class	Lecture/directed study	Lecture/practical class	directed study/practical class
Formation Préparatoire	0	2	22,5	7,5				
Méthodes et Fondamentaux pour l'Exploration du Vivant	0	2	22,5	7,5				
Immersion Recherche	0	3	22,5	7,5				
Mineure BDG	0	9	22,5	7,5				
Majeure 1 (Double Majeure BDG)	0	1	22,5	7,5				
Majeure 2 (Double Majeure BDG)	0	5	22,5	7,5				

Subjects	ECTS	Semester	Lecture	directed study	practical class	Lecture/directed study	Lecture/practical class	directed study/practical class
Formation Préparatoire	0	2	22,5	7,5				

Subjects	ECTS	Semester	Lecture	directed study	practical class	Lecture/directed study	Lecture/practical class	directed study/practical class
Méthodes et Fondamentaux pour l’Exploration du Vivant	0	2	22,5	7,5				
Immersion Recherche	0	3	22,5	7,5				
Majeure BDG	0	1	22,5	7,5				
Mineure BDG	0	9	22,5	7,5				

Training campus

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Versailles

Versailles
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Versailles Rive Droite - Ligne L
RER C Versailles Château Rive gauche
Voir
Student restaurant (CROUS)
Library
Student residence

Contact

- **Aurore RINCHEVAL**
- **Jerome ARTUS**
- **Frédéric CREMAZY**

http://www.universite-paris-saclay.fr/formation/master/biologie-moleculaire-et-cellulaire/m1-biologie-des-genomes-site-versailles