

FAIROmics

FAIRification of multi-Omics data to link databases and create knowledge graphs for plant-based fermented foods
MSCA-DN-2022 Joint-Doctorates

Apply for your PhD in the FAIROmics project - FAIRification of multiOmics data to link databases and create knowledge graphs for fermented foods.



Job description

Title: DC14, PhD fellowship in law, "Legal Aspects of Open Science: FAIROmics as a Case Study".

Researcher profile: Doctoral candidate.

Research field: Intellectual Property, Data Law, Open Science, Open Access, Open Data.

Type of contract: Temporary.

Job status: Full-time.

Duration: 36 months.

Application deadline: 15/05/2024 23:59 - Europe/Brussels.

Envisaged job starting date: October 2024.

How to apply: submit your application form through this [link](#).

Hiring organisation and offer posting contact details:

Organisation: Université Libre de Bruxelles.

Number of positions available: 1

Country: Belgium.

Address: Campus du Solbosch, Av. F. Roosevelt, 50, 1050 Bruxelles.

Please note that this PhD position will lead to the award of a **double diploma** after the completion of a stay in each of these organisations: The **Free University of Brussels** (ULB), Belgium and the **University of Strasbourg** (UNISTRA), France.

Offer description

In brief:

We are looking for one Doctoral Candidate (DC) to join our project at multiple sites in the EU with a master's degree in law (with a preference for a focus on European Intellectual Property and Data Laws) interested in identifying and contributing to the definition of the Open Science legal framework in the European Union.

FAIROmics project:

The FAIROmics project has received funding from the European Union's Horizon Europe research and innovation programme under the Marie Skłodowska-Curie grant agreement N°101120449.

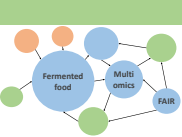
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The FAIROmics initiative, an interdisciplinary research programme, will gather universities, research centres and private companies to enable the FAIRification of omics data and databases interoperability and develop knowledge graphs for data-driven decision-making to rationally design microbial communities for imparting desirable characteristics to plant-based fermented foods in the context of open science and its regulations. The FAIROmics training programme aims to develop doctoral candidates' skills at the interface between artificial intelligence, life sciences, humanities, and social sciences.

Scientific context:

Plant-based dairy and meat alternatives have grown in popularity in recent years for various reasons, including sustainability and health benefits, as well as lifestyle trends and dietary restrictions. However, plant-based food products can be nutritionally unbalanced, and their flavour profiles may limit their acceptance by consumers. Microorganisms have been used in making food products for millennia. However, the diversity of microbial communities driving plant-based fermentations, as well as their key genetic and phenotypic traits and potential synergies among community members, remain poorly characterised. Many data exist, but they are spread into different literature (scientific and grey) or, in the best case, in different databases. However, they are not always reusable because they are difficult to find and access and because databases are not systematically interoperable.

Objectives:

The research project aims at identifying and contributing to the definition of the Open Science legal framework. According to this project, an appropriate legal environment for Open Science shall ensure that the principle 'as open as possible, as closed necessary' (see, e.g. recital 8, Regulation (EU) 2021/695 establishing Horizon Europe) applies at every stage of the research process.

The research project will be divided into two parts (legal theory and case studies) :

The first part will study the legal aspects (mainly Intellectual Property and Trade Secrets; Personal and Non-Personal Data; Contract Law) related to:

- Data Access, with a focus on the most recent EU legal instruments, including but not limited to: Regulation (EU) 2016/679 on the protection of personal data (GDPR); Regulation (EU) 2018/1807 on the free flow of non-personal data; Directive (EU) 2019/1024 on open data; Regulation (EU) 2021/695 establishing Horizon Europe; Regulation (EU) 2022/868 on European Data Governance; Regulation Proposal on harmonised rules on fair access to and use of data (COM(2022) 68 final)

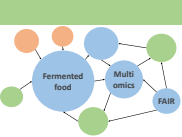
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- Data Analysis, with a focus on the recent Text & Data Mining Exceptions: Art. 3 and 4 Directive (EU) 2019/790 on Copyright and Related Rights in the Digital Single Market;
- Research Results Exploitation, with a focus on open licensing practices.

The general assumption underlying the first part of the research is that the emerging legal framework for Data Access and Data Analysis moves apart from the proprietary model and is, therefore, sound for promoting Open Science. Conversely, it is assumed that the Research Results Exploitation still relies mainly on a proprietary model, overlooking the potential of open licensing strategies in various fields ('more closed than necessary').

The second part will study the practical implementation of this legal framework (completed with relevant national law provisions) in relation to case studies selected amongst the Individual Research Projects carried out in the frame of the FAIROmics Doctoral Network. The case studies will be selected according to their contribution to each stage of the research (as identified above) in different disciplines.

The general assumption underlying this second part of the research is that the emerging legal framework does benefit Open Science, but not to the fullest extent envisaged in theory for reasons of practical hurdles ('not as open as possible'). The ancillary assumption lies in the preference given by universities (and their commercial partners) to the proprietary model. If verified, the validity of this model as to its contribution to Open Science will be tested through counterfactuals based on open licensing practices.

Expected results:

The expected result is the Ph.D. thesis on the Legal Aspects of Open Science. The thesis will be made accessible in Open Access.

Ancillary results will comprise scientific papers on selected topics in relation to the main topics, scientific communication in relation to the topic, dissemination of knowledge as to the main topic within the network, contribution to the setting up of teaching modules in relation to the topic, to be used in the network.

Location and planned secondments:

The PhD student will mainly be located at ULB, Belgium for **24 months** and at the University of Strasbourg for a **12-month** secondment in order to gain expertise in Intellectual Property and Artificial Intelligence Law.

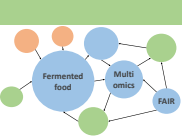
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Enrolment in Doctoral degree:

1st-degree awarding organisation: Université Libre de Bruxelles, <https://www.ulb.be/en/ulb-homepage>

2nd-degree awarding organisation: Université de Strasbourg, <https://en.unistra.fr/>

Required skills/qualifications

Required education level:

Candidates should have a background in Intellectual Property, Data Law, Open Science, Open Access and Open Data.

Applicants must hold a Master's degree or have a university degree equivalent to a European Master's (5-year duration) at the time when the PhD contract will begin. Supported researchers must be Doctoral Candidates (DC), i.e., not already in possession of a doctoral degree at the date of the recruitment. Researchers who have successfully defended their doctoral thesis but who have not yet formally been awarded the doctoral degree will not be considered eligible. Master's degrees from all countries are eligible.

Skills and qualifications:

- Legal Expertise in European Intellectual Property and Data Laws: Deep understanding of IP laws, especially as they pertain to the European Union, is crucial.
- EU data-related regulations: In-depth knowledge of key EU data-related regulations, including but not limited to the DMA, DSA, GDPR, and the Regulation on the Free Flow of Non-Personal Data, understanding their implications for data access, privacy, digital markets, and services.
- Open Science Principles: Familiarity with the concepts and practices of Open Science, including open access, open data, and open methodology, and how they apply within the legal framework of the EU.
- Regulatory Compliance: Understanding of compliance requirements under various EU data regulations and the ability to apply these in the context of Open Science, ensuring that research practices adhere to legal standards.
- Research Skills: Ability to conduct comprehensive legal research, including analysing and synthesising information from scientific literature, grey literature, and various databases.
- Critical Thinking and Problem-Solving: Ability to identify key legal issues and challenges within the Open Science framework and propose innovative solutions.

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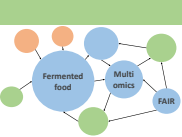
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- **Communication Skills:** Proficiency in communicating complex legal and scientific concepts clearly and effectively, both in writing and orally, to a diverse audience, including scientists, legal professionals, and policymakers.
- **Collaboration and Teamwork:** Ability to work effectively in an interdisciplinary team and collaborate with researchers across multiple sites in the EU.
- **Interdisciplinary Understanding:** Since the project involves innovations in the fields of biotechnology and microbiology, an interest in these fields would be beneficial to comprehend the scientific context and its legal implications.

Eligibility criteria

- **Any nationality**
- **Doctoral Candidate (DC):** The applicant must not have been awarded a doctoral degree.
- **Mobility rule:** The DC must not have resided or carried out main activity (work, studies, etc.) in the country of their host organisation for more than 12 months* in the three years immediately prior to the date of selection in the same appointing international organisation.
* EXCLUDED: short stays such as holidays, compulsory national services such as mandatory military service and procedures for obtaining refugee status under the General Convention.
- **Language:** Applicants must demonstrate fluent reading, writing and speaking abilities in English (B2).

Supervisors team

Université Libre de Bruxelles :

The research will be conducted at JurisLab under the supervision of its Director, Prof. **Julien Cabay**, who holds the chair "Intellectual Creations and Innovation Law" in the Faculty of Law at Université Libre de Bruxelles [ULB].

The **JurisLab** is a research unit dedicated to the "Law of Creation and Innovation", with particular emphasis on Intellectual Property Law, Data Protection, Consumer Law and Unfair Competition Law, as well as the interaction between these different fields of the law.

Along with other research units, it is a department of the Centre for Private Law (Centre de droit privé) of the ULB. Engaged in cutting-edge interdisciplinary research, the JurisLab has its offices located in the FabLab ULB, where it collaborates with academic and scientific members coming from other ULB Faculties (mainly Civil Engineering, Sciences, and Law).

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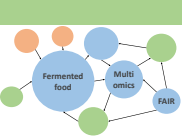
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Research conducted at JurisLab aims to provide in-depth analysis and propose balanced solutions in the covered areas. As a matter of policy, all members of JurisLab share a common understanding of the critical importance of protecting fundamental rights and freedoms in the fields of Creation and Innovation Law. This is emphasised in the work at JurisLab and is at the very core of some of its members' research.

Working languages at JurisLab are French and English.

More information: <https://droit-prive.ulb.be/unite/jurislab/> ; <https://fablab.ulb.be/>

Université de Strasbourg :

The candidate will be integrated into the **CEIPI** research laboratory under the supervision of Prof. **Jean-Marc Deltorn**.

The CEIPI, an international research centre, plays an essential role in the shifting intellectual property landscape. Its international partnerships enable it to develop common teaching and research programs and student and academic staff exchanges throughout the world and to guarantee excellent academic training based on a teaching staff composed of academics and recognised legal professionals of all backgrounds. A key focus of CEIPI research is addressing the articulation between algorithmic developments and IP laws. At CEIPI, Jean-Marc Deltorn holds the chair "Dynamics of European norms & emerging technologies", which specifically addresses these issues.

The CEIPI also has an important mission of reflection on the evolution of intellectual property law in the knowledge society through publications, participation in European and international projects, and the organisation of conferences and symposiums. Each year, CEIPI trains more than 2,500 specialists and professionals in the intellectual property field. The preparation for the EQE is organised with the participation of established European patent attorneys and members of the European Patent Office (EPO).

The working languages at CEIPI are French and English.

More information can be found here: <https://www.ceipi.edu/en/>

Host institutions description

Université Libre de Bruxelles:

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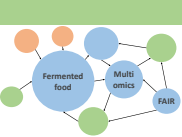
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Founded in 1834, Université libre de Bruxelles (<http://www.ulb.be>) has a long tradition of excellence in Research with four scientific Nobel Prizes, two Nobel Peace Prizes, one Fields Medal, three Wolf Prizes and two Marie Curie Excellence Awards. It is one of the largest and best Research Universities in Belgium, with a student population of 35,000 and almost 2,000 PhD in progress distributed among 22 Doctoral schools. ULB has considerable experience with European funding programmes, being involved in more than 310 projects financed by the 7th European Framework Programme (FP7), Horizon 2020 (H2020) and Horizon Europe (HE), from which 97 MSCA projects. ULB has participated in 36 Marie Skłodowska-Curie Doctoral Networks.

Université de Strasbourg:

With its 500 years of history, the University of Strasbourg remains a resolutely modern institution. A pioneer in many fields, our university occupies a position at the forefront of the international scene. The university hosts 5 Nobel Prizes, 1 Field Medal, 1 Kavli Prize, 4 CNRS Gold Medals, 20 Académie des Sciences members, 54 members of the Institut Universitaire de France, 62 members of the European Research Council (ERC). It is ranked as the first university for chemistry in the European Union as well as the first university in Europe for impact on innovation (16th place globally). The university hosts more than 60000 enrolled students (including 12000 foreign students), ten doctoral schools and 2300 doctoral students.

We offer

- A comprehensive, interactive and international training programme covering the broader aspects and interface between life science, data science, artificial intelligence and humanities and social sciences, as well as transferable skills.
- An enthusiastic team of professionals to co-operate with.
- Personal Career Development Plan (PCDP) to prepare young researchers for their future careers
- Each DC will undergo individual training at individual institutes according to the PCDP description.
- An attractive compensation package in accordance with the MSCA-DN programme regulations for doctoral candidates. The exact salary will be confirmed and will be based on a living allowance of 3400€/month (correction factor to be applied per country) + mobility allowance of 600€/month. Additionally, researchers may also qualify for a family allowance* of 660€/month, depending on the family situation. Taxation and social (including pension) contribution deductions based on national and company regulations will apply.

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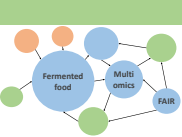
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*family = be married/be in a relationship with equivalent status to a marriage recognised by the legislation of the country or region where it was formalised/have dependent children who are being maintained by the researcher.

Selection process

The selection process is based on the merits of providing equal opportunity and will be in agreement with the [European Code of Conduct for the Recruitment of Researchers](#).

1. **Candidates** apply for a position using the **online application form** ([accessible here](#)).
2. The **FAIROmics Project Manager provides a first screen** of the written applications to **check the eligibility** of the candidate and forwards the eligible applications to the DC supervisors.
3. The **DC supervisors** will select the **best candidates based on CV, academic records, recommendation and motivation letters and adequate skill set**. To better assess the best candidate, the shortlisted candidates might be asked to write an abstract of provided scientific documents relevant to the research subject.
4. The selected applicants will be **interviewed through an online meeting by the Selection Committee** (two main supervisors and two representatives of a beneficiary or associated partner, with at least one person external to the DC's project).
5. The **best candidates will be chosen by the main supervisors**. The European Project Manager will communicate the successful candidates to the Consortium and Partners.

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