

FULL-TIME ACADEMIC POSITION**GEMBLoux AGRO-BIO TECH****FIELD: INNOVATIVE USE OF PLANT GENETIC RESOURCES****START DATE: 01/01/2025**

The University of Liège is the biggest French-speaking public university in Belgium. It has more than 5,700 members of staff in four campuses, including 3,600 teachers and active researchers in all fields of the human and social sciences, science and technology, and health sciences. It hosts nearly 27,000 students of 123 different nationalities in one of the most multicultural and dynamic cities in Europe, less than an hour from Brussels and Cologne, two hours from Paris and three hours from London and Amsterdam.

Actively involved in the social and environmental transition, ULiège supports students to fulfil their roles as responsible citizens (training in sustainable development, Green Office, etc.) and promotes ethical, multidisciplinary and open research. ULiège is committed to the region in which it operates and contributes towards its socio-economic development. It has developed numerous partnerships, notably with the CHU de Liège. International and united, it participates in the [European University of Post-Industrial Cities](#), UNIC initiative and has one of the most extensive collaborative networks in the world.

ULiège offers attractive career prospects [in a high-quality working environment](#), promoting well-being, diversity and equality of opportunity. Since 2011, it has been proud to hold the European label [Human resources strategy for researchers](#) (HRS4R) which reflects its commitment to open, transparent and merit-based procedures. In addition, it recognises the quality and diversity of research in line with the recommendations of the [Coalition for Advancing Research Assessment](#) (CoARA). ULiège encourages the internationalisation of its academic staff and facilitates the arrival of international researchers through its EURAXESS centre.

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The Gembloux Agro-Bio Tech Faculty at the University of Liège is pleased to be recruiting a new professor who will bring an inspiring vision to the future of research and teaching in the field of the innovative use of plant genetic resources. The post will offer the successful candidate the opportunity to develop their own lines of research as part of a diverse team of talented researchers, teachers, and support staff. An exceptional working environment that is inclusive and safe for all employees and students is of paramount importance to ULiège and Gembloux Agro-Bio Tech. Applicants for this academic post should be prepared to foster an inspiring and creative academic atmosphere for all future colleagues.

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The productivity of the conventional agricultural production model is largely the result of crop homogenisation in fields and on a larger scale, as well as their dependency on synthetic inputs. The negative impacts of this model on the environment and on human beings, and its vulnerability to disturbance, call for a transition. Agro-ecology is an essential lever for developing sustainable, robust agriculture that respects human health and the environment. Agroecology involves profoundly changing the design and management of agricultural ecosystems (agroecosystems). Biodiversity in general, and plant biodiversity in particular, contributes towards providing ecosystem services, while sustainably maximising positive interactions within complex multi-trophic communities. This evolution is envisaged from the scale of the field through to a much larger scale.

For genetic research, this transition involves characterising, understanding, improving, and enhancing functional biodiversity and therefore the plant genetic resources available in an agricultural landscape, taking into account the multiple interactions with existing skills at Gembloux Agro-Bio Tech (mixtures of varieties, interactions with other trophic levels, etc.). Innovation in plant genetics is approached on the scale of the agroecosystem, taking into account important concepts in population ecology. Plant breeding must take account of this new paradigm, not only by selecting species, but also by improving varieties for their ability to be cultivated or bred together, exploiting their complementary qualities to combine performance, sustainability, and robust production.

“Omics” techniques (genomics, transcriptomics, metabolomics, proteomics, etc.) analyse and integrate the components of biological information in order to gain a better understanding of how a crop or plant community functions. This knowledge makes it possible to optimise biological regulation, leading to plants with adapted phenotypes. These techniques will therefore play a major role in supporting and steering the paradigm shift in improvement.

It is understood that the use of “omics” data on the scale of individuals representative of a plant species and present within an agroecosystem must also reflect a dynamic vision of biological systems by considering several levels of organisation (from cells to the organ they make up, or even to the community), time (multi-annual) and space (up to the landscape). Informed by fundamental research, the implementation of “omics” techniques and biotechnology tools must be rooted in real issues and geared towards the needs of growers and their plant production systems.

JOB DESCRIPTION

A full-time, indivisible position in the field of the innovative use of plant genetic resources, to support the agro-ecological transition, within the unique department at the Gembloux Agro-Bio Tech Faculty. This post includes teaching and research activities as well as services to the Community.

TEACHING ACTIVITIES

The teaching activities will include the following courses:

- ▶ Physiology, plant breeding and multiplication of cultivated plants, Genetic Improvement, Phytoresource Diversity and Plant Multiplication part (VEGE0026-1; 4 ECTS)
- ▶ Group project in agronomic sciences (AGRO0020-1; 2 ECTS)
- ▶ Application of molecular biology and genetics (BIOL2043; 1 ECTS)
- ▶ Plant defence systems in the face of biotic and abiotic stresses (CHIM9321-1; 1 ECTS)
- ▶ Integrated and agroecological protection of crops - plant genetics (VEGE0042-1; 1 ECTS)
- ▶ Chemical, biological and environmental risks related to plant production (VEGE0034-1; 1 ECTS)

Ultimately, applicants will aim for a teaching load of 15 ECTS, which could be achieved by developing courses and taking over courses from teachers entering retirement (such as BIOL2045 - 1.5 ECTS and VEGE0034 - 2 ECTS).

The teaching workload also includes supervising internships (Bachelor's and Master's students), projects and Master's final projects, and may eventually include involvement in the cross-disciplinary organisation of the Master's programme (e.g. chairing the jury for dissertations, academic coordination of internships, etc.)

RESEARCH ACTIVITIES

Applicants are expected to propose a research project related to the following themes:

- ▶ Mobilising and characterising plant genetic resources to assess their impact on interactions between the biotic components present in an agroecosystem on different spatial and temporal scales, in collaboration with the expertise available within GxABT.
- ▶ Characterising, improving and developing the plant phenotypes involved in these interactions.
- ▶ Developing knowledge of the biology of plant varieties from the laboratory to the field.
- ▶ Promoting robust and sustainable production of cultivated plants through the creation and exploitation of diversity controlled by one or more “omics” techniques (essentially genomics and/or transcriptomics) and taking account of the ecosystem services of agroecosystems.

These research activities can be carried out in temperate and/or tropical agroecosystems.

To support their work, applicants will have access to the existing research and technological infrastructure within the TERRA research unit of GxABT and ULiège (GIGA, CECI, etc.) and will be able to count on the collaboration of colleagues working in these facilities.

SERVICES TO THE COMMUNITY

The community service activities will be identified progressively, taking into account the needs of the university and the skills of the individual, in consultation with the deanery and departmental authorities.

The successful candidate will thus be able to make a valuable contribution to institutional dynamics and facilities (such as: *Viva Science*, *Pacodel*, *Open science*, *One Health*) and faculties (such as the AgricultureIsLife or EnvironmentIsLife CAREs, Gembloux Campus Durable).

The task will also be to advance scientific discovery, research, and teaching with colleagues at Gembloux Agro-Bio Tech and ULiège studying genetics or using omics techniques in other facilities, in a collaborative way, contributing to a strong and collaborative community of scientists.

QUALIFICATIONS REQUIRED / PROFILE

- ▶ A research doctorate and significant and recognised experience through international publications in the field of plant genetics or genomics;
- ▶ Demonstrate international collaborations that are relevant to the themes of the post and a willingness to develop these collaborations;
- ▶ Demonstrate the ability to finance and conduct scientific research and manage a team of researchers;
- ▶ Demonstrate the ability to teach in both English and French, or make a commitment to being able to do so within four years of appointment;
- ▶ Show willingness to work in a team of teachers and researchers from different disciplines and using shared human and material resources within GxABT;
- ▶ Be willing to develop research and development activities in contact with other stakeholders in the field;
- ▶ Be available for a variety of different roles relating to services to the community;
- ▶ Have good communication skills;
- ▶ Adhere to the quality management and continuous improvement system set up by the University;
- ▶ Have post-doctoral experience demonstrated by an extended study period abroad or significant experience acquired outside their home institution.

SELECTION PROCEDURE

Each candidate's application will be examined by a faculty committee in charge of selecting the candidates to be interviewed, giving reasons for its decisions with regard to this vacancy announcement and the qualifications and merits of the candidates. The Faculty Committee shall interview the candidates, in particular concerning their curriculum vitae, their teaching, research and integration plans for the Institution, and the command of French and English. The interview will include a "public lecture", the form of which will be set by the Faculty Committee. This interview will be held between October and December 2024.

Our institutional policy is based on diversity and equality of opportunity. We select candidates on the basis of their qualities regardless of age, sexual orientation, origin, beliefs, disability or nationality.

APPLICATIONS

Applications should be made using the online form available on the following website: https://my.uliege.be/portail/go_xt.do?a=o%7C11004%7Ce%7C585424

To be eligible, applications must be submitted **no later than 30/09/2024 (before midnight Belgian time)**.

DOCUMENTS REQUIRED:

- ▶ Cover letter.
- ▶ Curriculum vitae, download model [HERE](#).
- ▶ Teaching plan.
- ▶ Research plan.
- ▶ Plan for community services and integration within ULiège.

These documents must be uploaded in PDF format to the online application platform (see link in the "APPLICATIONS" section).

CONDITIONS OF EMPLOYMENT

The position is awarded either for a fixed term of four years, or, in certain exceptional circumstances, immediately on a permanent basis.

If a fixed term contract is awarded, an evaluation will be carried out at the end of the third year.

- ▶ If the evaluation is negative, the person's appointment will end after the fourth year.
- ▶ If the evaluation is positive, the person will be appointed permanently.

INFORMATION

Further information about the vacancy can be obtained from **Mr Frédéric Francis**, Dean of the Faculty of Gembloux Agro-Bio Tech, by email only, to the following address decanat.gembloux@uliege.be

REMUNERATION:

The salary grids and their rules of application are available from the Human Resources department of the University: **Ms Ludivine Depas** – tel.: +32 (0)4 366 52 04 – Ludivine.Depas@uliege.be

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