

CONTRACTUAL LECTURER-RESEARCHER FOOD SCIENCE

Université de Technologie de Compiègne (UTC) is recruiting a contractual lecturer-researcher in Food Science at its Department of Biological Engineering – Enzymatic and Cellular Engineering Laboratory (UMR CNRS 7025).

Place of work

Compiègne

Type of contract

3-years fixed-term contract, renewable, scheduled to start in early September 2021

Activities

Teaching:

The successful applicant will teach at UTC, which is classed among the top French engineering schools according to the major French rankings and offers a rewarding teaching environment. He/she will give lectures and conduct classes, mainly as part of the biological engineering curriculum (years 3 through 5), but also for the common core curriculum (years 1-2) and for the master's program.

Guided by the needs of the corporate world and the changing nature of professions relating to agrifood and bioindustry, the person recruited to this non-tenured teaching and research position will join the Biological Engineering Department's teaching team to teach food biochemistry and food science. He/she will have prior teaching experience and familiarity with the agrifood industry.

The successful applicant will be concerned mainly with food science modules linked to our Food and Agri-Resources Innovation specialty. He/she will teach sensory analysis, food biochemistry, physico-chemistry (rheology) and food microbiology (lectures, tutorials and lab sessions). He/she will also take charge of teaching relating to processes of aging in food products and the measurement of these processes, from a sustainable development perspective. As part of his/her teaching, the successful applicant will draw on examples from the agrifood sector according to his/her knowledge and experience.

The successful applicant will actively participate in the supervision and development of tutored projects in collaboration with industry and in preparation for French and European competitions such as Ecotrophéia (UTC was awarded the Gold Trophy in 2018). For this, he/she will use the technical food science platform at the UTC Innovation Center. He/she will also participate in the supervision of internships.

He/she will play an increasingly active role in the life of the Department, in particular in assuming responsibility for teaching modules and potentially taking charge of the Food and Agri-Resources Innovation specialty. Some teaching in English and the deployment of digital educational tools are envisaged.

Research:

The successful applicant will join the Enzymatic and Cellular Engineering laboratory (UMR CNRS 7025). His/her research will be related to that of the food science platform. He/she will be involved in industry-related projects, and in national and international collaborations. The profile sought is to some extent open as regards specific knowledge and skills, but candidates must demonstrate a familiarity with the industrial realities of the sector.

The successful applicant will strengthen the laboratory's activities in the field of food biochemistry. Our expectations focus the implementation of sensory engineering linked to the taste and nutritional qualities of food products, and their assessment by consumers. He/she will be in charge of implementing sensory engineering in the food innovation process, by studying the connections

between sensory perception, biochemical composition and matrix structure. The mechanisms of interaction between the various compounds of interest in different food matrices will be studied, as well as the bioavailability of macro and micronutrients via in vitro studies (cell models, digestion models) and/or in vivo. The goal is to formulate foods with high consumer acceptability, and that offer the possibility of modulating the digestibility of macro and micronutrients and enhancing their effects. The also successful applicant's knowledge of microbiology will provide him/her with insights into processes of aging in foods within the context of food product sustainability.

Profile and Keywords

Profile: Food biochemist: sensory characterization and relationships between food matrix and compounds of interest.

Keywords: Biochemistry, Food science, Food chemistry, Sensory analysis, Microbiology

Research fields EURAXESS

Biological sciences > Nutritional sciences,
Chemistry > Biochemistry, Analytical chemistry, Instrumental analysis Technology

Profile required

- established professional experience directly related to the specialty taught
- good English language skills are essential: the recruited person must be able to teach in English.
- at least an engineering degree or master's or a doctoral degree.

Others

A proven international experience and interest in industry-oriented applied research will be highly appreciated. He/he will be open and adaptable to multidisciplinary activities, within UTC and in external collaborations. As such, he/she will be encouraged to initiate and/or strengthen scientific and technological cooperations with international and national partners.

To carry out his (her) teaching and research missions, the recruited person will have all the necessary means at disposal: an office, computer equipment, the possibility of buying teaching materials (books, handouts, software, etc.). The GEC laboratory is equipped with the analytical platforms, a food science platform and a sensory analysis laboratory required to carry out this research.

Progressively, the successful applicant will take in charge the responsibility of teaching units, and participate in the development of the educational program of the Biological Engineering formation. He/she may also endorse the responsibility of the Food and Agroressources Innovation speciality.

The Department

The Department of Bioengineering offers courses for engineering students at the bachelor's, master's and PhD levels. It hosts the "Biomécanique et Bioingénierie" (UMR CNRS 7338) and "Génie enzymatique et Cellulaire" (UMR CNRS 7025) research laboratories. There are modules (part of the UTC common core) for entry-level undergraduates, as well as specialized tracks for advanced engineering undergraduates and at the master's levels. The Department maintains strong connections with industry in teaching as well as in research, and has built close links with academic institutions and partners internationally. Over the course of three years, undergraduate engineering students enrolled at the Department of Bioengineering acquire knowledge and skills in both engineering and life sciences to prepare them for a career in agrifood, biotechnology, or in the biomedical area.

<https://www.utc.fr/formations/diplome-dingenieur/genie-biologique-gb/>

The Lab

The Enzyme and Cell Engineering Laboratory is a CNRS Joint Research Unit (UMR 7025) doing research under the two headings of "Plant Metabolism and Bioresources" and "Biomimicry and Biomolecular Diversity". The Laboratory is involved in both basic and application-oriented research, with these two aspects intended to complement each other within the framework of various partnerships (at UTC, in France, with overseas institutions, and with industry).

The theme "Plant metabolism and Bioresources" is focused on improving the fundamental knowledge of bioresources with the promotion of the whole plant as a source of new bioactive molecules that can be used in response to societal issues. The theme "Biomimicry and Biomolecular diversity" includes research on the study of the biological properties of valuable bioactive natural molecules in the fields of nutrition, health protection and the environment. The knowledge generated at the interface of these two themes is notably applied to the development of new functional food products responding to current societal challenges through the activities of the food science platform.

<http://www.umr7025-gec.fr/>

Contacts

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To apply

CV and covering letter to be uploaded to:

<http://candidature.utc.fr/ecc/>

For any additional information please contact:

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UTC - Human Resources Division - Recruitment Office - UTC/DRH/PR/2021

<https://www.utc.fr> – under the heading *recrutement*