# Full Professor in Bioengineering for Health

## About CentraleSupélec

CentraleSupélec is a leading French **'Grande École'** and a public research university. It operates under the joint authority of the Ministry of Higher Education and Research and the Ministry of Industry. Its core missions include educating high-level global and specialised engineers, Bachelor's and Master of Sciences, conducting cutting-edge research in engineering and systems sciences, and providing continuing professional education programs. As part of its development in teaching and research, strongly shaped by structured international collaborations, CentraleSupélec is opening a Full Professor position in Bioengineering for Health. The selected candidate will be affiliated with the Department of Mechanics, Energy & Processes and will conduct research within either the LGPM laboratory.

The Department of Mechanics, Energy & Processes (MEP) covers the fields of Mechanics and Civil Engineering, Energy Engineering, Process Engineering, Health Biotechnologies, Environmental Sciences, and Earth System Sciences for CentraleSupélec's engineering programs. It is involved in several Master's tracks within the Graduate School "Engineering and Systems Sciences." It also contributes to teaching in the new Bachelor's programs, particularly in Biochemical Engineering.

The Laboratory of Process Engineering and Materials (LGPM EA4038) operates across two closely interrelated fields of investigation : Process/Bioprocess Engineering and Materials. Modelling, simulation, and experimentation are the common pillars of the various research themes addressed. This complementarity makes it possible to move from an understanding of microscopic phenomena through to the simulation, optimisation, and intensification of transformation and elaboration processes and bioprocesses. Scale-up and multi-scale approaches therefore lie at the heart of the laboratory's activities and represent the preferred pathways for bridging academic studies and industrial applications. Our expertise, firmly rooted in Process Engineering, is applied to the sustainable aspects of material transformation processes (resource and energy savings, optimisation and intensification), to bioprocesses (designing and industrialising production and purification processes for biomolecules), and to materials development, particularly bio-based materials. The laboratory comprises 90 staff members (half permanent researchers and faculty, half doctoral and postdoctoral researchers). LGPM operates across two sites of equivalent size (Saclay campus and Reims – Biotechnology Chair).

## Teaching responsabilities

The selected candidate will join the Department of Mechanics, Energy & Processes (MEP) at CentraleSupélec, where they will play a structuring and leadership role in developing the School's educational offering in bioengineering and health biology. They will be expected to embody and champion the School's strategy in this fast-growing field, at the interface between engineering sciences, life sciences, and health challenges.

They will be responsible for a “Bioengineering for Health” specialisation within CentraleSupélec’s International Bachelor’s programme (Years 3 and 4), as well as for an international “Health” track within the Generalist Engineer curriculum. The academic positioning, structure, and content of these programmes will be defined in close alignment with the strategy of the Dean of studies.

To fulfil this mission, they will lead a working group bringing together faculty members from the relevant disciplines, with the aim of identifying and mobilising available educational resources — both internally and through the School’s academic partners (notably within Paris-Saclay) and socio-economic partners. The successful candidate will be responsible for the governance, rollout, and progressive scaling of these programmes.

Beyond these structural responsibilities, they will bring their expertise in engineering and biotechnologies to bear on health-related teaching delivered across all of CentraleSupélec’s curricula — the Engineer cycle, research Master’s programmes, and the Bachelor’s programme. They will also take an active part in medium- and long-term prospective thinking on the evolution of educational programmes, particularly regarding the integration of new pedagogical practices (project-based learning, hybrid delivery, research-based learning, and the considered use of digital tools and AI). They will contribute to the individual and collective support of students in building their academic and professional pathways.

## Research responsabilities

The selected candidate will integrate the Bioprocesses axis of LGPM, where they will strengthen the group’s scientific momentum. Their research agenda will be self-defined and self-driven, in coherence with their own area of excellence and with the laboratory’s scientific project. The preferred field of investigation will be health and high-value therapeutic bioproduction — biopharmaceuticals, vaccines, cell and gene therapies, tissue engineering, and emerging biological modalities. The experimental activities developed may be usefully complemented by a modelling approach — mechanistic models, hybrid models, and machine learning and artificial intelligence methods applied to process engineering.

In line with the scientific policy of CentraleSupélec and LGPM, and drawing on the laboratory’s expertise and platforms, the successful candidate will develop, as a genuine leader, a programme of fundamental and applied research of international standing. They will ensure the dissemination of their work through publications in the most rigorous journals in the field, and through an active knowledge transfer policy (patents, industrial partnerships, technology maturation schemes).

They will play a central role in research-based training, supervising doctoral students, postdoctoral researchers, and Master’s interns.

They will be a driving force in the development of academic and industrial collaborations at every scale : locally, within Université Paris-Saclay and its thematic institutes ; nationally, through structuring networks and programmes (PEPR, France 2030, IHU, etc.) ; and internationally, building in particular on CentraleSupélec’s strategic partnerships. Developing cooperation with socio-economic stakeholders in the sector — pharmaceutical industry, biotechnology, medical devices, deep tech start-ups — will be an explicit dimension of their activity.

The position is based on CentraleSupélec's Saclay campus, at the heart of Université Paris-Saclay, a world-leading research ecosystem in engineering sciences and life sciences. To facilitate onboarding and enable a rapid start to research activities, a Welcome Package of €150k will be awarded to the successful candidate, deployable according to need (equipment, doctoral student, postdoctoral researcher, missions, scientific services).

## Qualifications and Experience

Candidates are expected to have teaching experience in English and possibly in French. Candidates with previous experience where such diplomas exist must hold an "Habilitation à Diriger des Recherches" in bioprocess engineering (or equivalent qualification), ideally with an application in the health sector. An experimentally oriented profile is sought, though skills in bioprocess modelling, numerical methods, and simulation would be an asset. They will have demonstrated the ability to work within multidisciplinary teams alongside both academic and industrial partners. The ideal profile combines an initial engineering background with a strong appetite for bioprocesses, whether in the area of biotransformation (cell culture, fermentation, metabolic engineering) or downstream processing (purification, formulation, quality control).

## Application process

Applications must be submitted by email to the following email address :

drh.pole-enseignant@centralesupelec.fr

The deadline for submission is September, 30th 2026 at 11 :59 PM (Paris time). Please include the reference EC05_PR_BioIng_LGPM in the email subject line. The electronic application must include the following documents compiled within a single PDF file :

- A cover letter
- A detailed CV containing teaching experience, research, mobility, publications, etc.
- A 5 to 10-page research and teaching project that meets the requirements of CentraleSupélec
- A copy of the identity card or passport
- A copy of the doctoral degree
- Thesis and/or Habilitation defense reports when available, or any equivalent documents.
- Letters of recommendation (optional)
- Any other documents proving the experience

## Interview process

Shortlisted candidates will be invited to an interview, which consists of three stages, allowing us to assess your suitability for the position :

1. Candidates will present their academic background and their teaching and research project.
2. Each candidate will demonstrate their teaching skills by presenting a lesson in English, addressing a common problem specified in the audition invitation.
3. Candidates will then respond to questions from the committee members.

The interview invitations will state the duration for each stage.

## Scientific contacts

Ronan Vicquelin, Head of Department of Mechanics, Energy & Processes (MEP) : Ronan.vicquelin@centralesupelec.fr

François PUEL, Directory of Laboratory LGPM : francois.puel@centralesupelec.fr