

! SOUS RESERVE D'APPROBATION PAR LE CONSEIL ACADEMIQUE DU 26 AOUT 2024 !

FULL-TIME ACADEMIC POSITION IN CHEMOMETRICS AND ANALYTICAL DATA ANALYSIS

FACULTY OF PHARMACY

Reference : 2024/A022

Deadline for applications: 30/09/2024

Starting date: 01/01/2025

Job description

Brussels is a multicultural capital at the heart of Europe with the comfort of a metropole on a human scale; a 1h20 commute by train from Paris, 1h30 from Amsterdam, 1h50 from London and Cologne. ULB brings a green, lively and stimulating environment working. Our University is internationally recognised and covers all disciplines, combining high-quality teaching and research. It features 40 Bachelor degrees, 150 Master degrees and 3 Erasmus Mundus, over 65 specialised Master degrees, counts 6 Nobel Prize winners and is engaged in 20 doctoral schools accounting for around 2000 PhD students. ULB is also strongly and ethically committed to freedom, independence and tolerance ([find out more](#)).

The Pharmacognosy, Bioanalysis and Medicines Unit ([RD3-PBM](#)) at the Faculty of Pharmacy currently comprises 4 academics, 10 researchers and 4 technicians, and includes the [Faculty analytical platform](#) with mass spectrometers and infrared spectroscopy instruments (as well as their coupling to microscopy or AFM). The RD3-PBM seeks to strengthen the Department by appointing a tenure track an academic to lead and develop research in data science. These will include but are not limited to: data science and analysis, chemometrics, artificial intelligence and machine learning. This research will be applied to biomedical, pharmaceutical and health sciences.

The successful candidate is expected to develop his/her own activities within the RD3-PBM unit, leading an independent research group and running a dynamic, internationally recognized research program capable of attracting external funding. Research projects and grant proposals will be submitted on a regular basis to the appropriate funding bodies (national and international) to acquire external funding.

A good integration with the various research teams within the Faculty of Pharmacy, as well as with the biostatistics platform of the ULB Health cluster ([BIOPS](#)) is desirable.

The position will require teaching and excellent knowledge of diverse data analysis techniques, a mathematical and computing tools, especially statistics. The successful candidate will provide students with the basic skills needed for experimental planning and the analysis of (bio)chemical, physico-chemical and medical data.

Scholarly knowledge is expected in some or more of the following areas :

- Design of experiment (multivariate components)
- Recursive decision methods (Decision trees)
- Multivariate analysis
- Neural networks

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- Non-linear predictor selection
- Artificial intelligence
- Image analysis
- Graphical data analysis

This is a full-time position for a probation period of three years, with transition to permanent (i.e., tenured) appointment at the end of the three years after a favourable assessment from the University authorities.

Research area: *Biomedical and pharmaceutical sciences, data processing*

Educational and scientific objectives:

Teaching: mathematical and statistical tools, in particular chemometrics, for optimizing chemical, biochemical and pharmaceutical processes/analyses (separative and spectral methods, synthesis, formulation, etc.).

Research: The research objectives are listed above.

Courses that will progressively be included in the teaching tasks:

MATH-J1xx: **Applied mathematics** in pharmaceutical sciences (24h THE, 24h EXE).

STAT-J201: **Statistics applied** to pharmaceutical sciences (THE 22h, EXE 26h).

TRAN-J201: Scientific English partim **project** (THE 6h, EXE 4h).

PHAR-J302: partim **validation** (THE 12h).

TRAN-J311: Transdisciplinary project in drug analysis - Partim **Seminar Validation** (EXE 12h).

The teaching load may grow with the Faculty needs and in line with academic coordination. Candidates may also be asked to teach in continuing education courses or in the specialist Masters programs from the Faculty.

Required title

PhD in Pharmaceutical Sciences, Biomedical Sciences, (Bio)chemical Sciences, Sciences, Agricultural Sciences and Biological Engineering, Engineering sciences, (Bio)Computer sciences.

Skills required

- you have at least 4 years of scientific seniority at the time of joining.
- you can demonstrate at least one year of post-doctoral experience outside the institution which awarded the doctorate, as well as an excellent scientific record.
- your curriculum vitae shows a sustained research activity of a very high scientific level in the field of chemometrics in relation to analytical data in general and more specifically applied to the field of pharmaceutical sciences or health in general.
- if you are not fluent in French (level C1), an adaptation period may be granted, but you must be able to teach in French by the end of the third year following your appointment.

Interested?

Further information can be obtained from Pierre Van Antwerpen (telephone: +32 2 650.52.63 - e-mail: pierre.van.antwerpen@ulb.be).

The application file must be sent in electronic format, by sending a single e-mail to the Rectorate of the Université libre de Bruxelles (at rectrice@ulb.be) and to the Dean of the Faculty at the following address: doyen.ne.pharma@ulb.be with copy to daf.pharma@ulb.be.

It will contain the following items:

- a covering letter
- a Curriculum Vitae :
If you wish, a standard form can be completed via the website: <https://www.ulb.be/fr/documents-officiels/completer-votre-cv-en-ligne> . Once completed, it must be downloaded and attached to the application file.
- a report of approximately 7000 characters (or 4 pages) on research activities and a research project, including the planned integration into ULB research teams
- a teaching dossier comprising a report of around 7,000 characters (or 4 pages) on previous teaching activities and a teaching project for the first 5 years of the term of office, which fits in coherently with the vision of the Faculty and with the key learning outcomes of the programmes to which the candidate will be expected to contribute
- a note on international projects and achievements (maximum 4 pages)
- the names and contact e-mail addresses of five referees who may be contacted by the bodies responsible for assessing the applications, taking care to ensure gender balance. These people must not be in a conflict of interest due to family or emotional ties.

Only complete applications will be considered by the selection committee. Appointment within the ULB academic framework is at the rank of lecturer. Upon appointment, members of the academic staff are authorized to use the title of professor on an honorary basis.

Equal opportunities policy

ULB's personnel management policy focuses on diversity and equal opportunities.

We recruit candidates on the basis of their skills, regardless of their age, gender, sexual orientation, origin, nationality, beliefs, disability, etc.

Would you like to benefit from reasonable accommodation as part of the selection procedure because of a disability, disorder or illness? Please do not hesitate to contact Marie Botty (marie.botty@ulb.be), our contact person in charge of diversity issues for teaching and scientific staff. Rest assured that this information will remain confidential.

More details on our gender and diversity policies are available at <https://www.ulb.be/fr/l-ulb-s-engage/diversites> .

You will find all the provisions relating to the careers of academic staff on our website at <http://www.ulb.ac.be/emploi/academique.html> .