



Job offer Royal Military Academy - Patrimony



Research scientist/engineer (M/F/X) for the Biological Laboratory (DLD-Bio) of the Belgian Ministry of Defence **Project “EDF-TeChBioT”** Publication: 21 DEC 23

Job description and associated tasks

In the framework of an EDF research project focusing on the development of a universal detection technology based on ion mobility spectrometry (IMS) optional gas chromatographic pre-separation (GC) for enabling fast detection and identification of non-volatile biological and low-volatile chemical agents, we are looking for a full-time research scientist/engineer with a degree in biology or a related discipline (life sciences, biomedical sciences, biological technology, bioengineering, molecular biology, cellular biology, biochemistry ...).

Context:

The Royal Military Academy of Belgium (RMA) is a military institution responsible for the basic academic, military and physical training of future officers and for the continuing advanced training of officers during their active career in the Belgian Defence department (<https://www.rma.ac.be>). It is fully recognized as a university, fulfilling the same criteria as civilian universities. The Royal Military Academy is also conducting scientific research at university level for projects funded by the Belgian Defence department or external sources.

The successful candidate will be integrated in the Biological Laboratory (DLD-Bio) of the Belgian Ministry of Defence. This research unit is responsible for addressing issues related to biological threats during military operations abroad but also in Belgium, in the context of aid to the nation. The DLD-Bio laboratory takes advantage of existing technologies or those under development in the laboratory as well as emerging technologies, multidisciplinary, and military, academic and clinical collaboration networks.

The successful candidate will work within the research team of the DLD-Bio laboratory, under the supervision of the Head of the laboratory, and in close collaboration with various partners in Europe.

Successful candidate will conduct scientific research at university level on a project entitled “Surveillance and Reconnaissance Techniques for Chemical & Biological Threats: TeChBioT”.

Study:

The project “TeChBioT” consists in developing a customised and field deployable gas chromatography ion mobility spectrometer (GC-IMS) for fast detection and identification of non-volatile biological and low-volatile chemical agents. Benchmarking tests will take place in operational military laboratories and demonstration of monitoring large geographical areas will be performed using UAV and manned vehicle outdoors, in complex background scenarios.

More information about the project: <https://techbiot.eu/>

Main Tasks

The successful candidate will be, in cooperation with his/her colleagues and partners, responsible for designing, undertaking and analysing laboratory-based experiments. The laboratories where the experimental work will be carried out are as follows: DLD-Bio (Brussels).

The successful candidate will:

- Prepare, qualify and quantify biological bio-simulants for benchmarking and device validation research activities according to the tasks of the project.
- Design the testing plan and perform biomolecular experiments and laboratory analyses to validate the device in compliance with established procedures.
- Monitor experiments, record, analyse and draft deliverables reports.
- Write research papers, reports, reviews and summaries. The candidate is expected to publish the relevant results in the scientific literature while taking the industrial valorisation of these results into account.
- Prepare research proposals and funding applications.
- Monitor laboratory work to ensure compliance with set standards.
- Supervise junior staff and technicians.
- Set up, operate, calibrate, clean and maintain laboratory instruments and equipment.
- Manage and control the equipment, specific infrastructure and consumables required to perform the tests in accordance with current standards (prepare and follow-up orders, calibrations, repairs, maintenances, technical data sheets, updates).
- Ensure the strict respect of quality and safety rules.
- Comply and respect the procedures concerning:
 - waste management
 - transport, storage, use and evacuation of biological (warfare) agents, chemicals and reagents
 - purchase of goods and services
- Use computers, computer-interfaced equipment to perform work duties.
- Perform correctly and in a timely manner the different missions and tasks in collaboration with the Technical responsible and the Head of the laboratory.

Required skills

Technical skills

- The applicant shall have a Master degree in biology or a related discipline (life sciences, biomedical sciences, biological technology, bioengineering, molecular biology, cellular biology, biochemistry ...).
- Theoretical knowledge and practical experience in microbiology techniques (viral and bacterial culture and quantification) and mass-spectrometry is an added value.

Personal skills

- You conduct scientific research in an independent and upright way within a multidisciplinary environment.
- You have a proactive attitude and perform your tasks with precision and commitment.
- You are flexible for change and adapt yourself.
- You have good oral and written communication skills.
- You will be working very closely together with the external collaborators and will get insight in their proprietary intellectual property. Confidentiality is therefore an absolute must.

Other skills

- The applicant shall have good knowledge of English (oral / written).
- French/Dutch bilingualism is an asset, as the project will take place in a multicultural environment.
- Good command of Microsoft Office™ tools (mainly Word, Excel and PowerPoint).

Specific requirement

- The researcher may be exposed to classified information and will therefore have to obtain the required security clearance. The candidate must consent with the background check required to obtain this clearance, which will be executed by Belgian Defence.

Application

You will be working in a military environment. That is why everyone is expected to undergo a security verification. Please add to your application the filled out document that is attached to the job description: <http://www.rma.ac.be/nl/aanvraag-veiligheidsverificatie>

Send by email:

- a motivational letter
- a CV
- a scan of your ID card (both sides)
- the filled out security document

to Mrs Béatrice SULKA (beatrice.sulka@mil.be) and to Mrs Helena BRUYNINCKX (erm-deao-rsw@mil.be).

Please mention clearly the reference of the project: **“TeChBioT-DLD Bio”**.

Application deadline: **25th January 2024**.

The interviews will take place in **Quarter Maj Housiau: Martelarenstraat 181, 1800 Peutie**. The date and time of the interview will be communicated to the preselected candidates.

Miscellaneous

Contract

- Probable date of recruitment: from **March 2024**, in consultation with the applicant.
Status: long-term contract with the Patrimony of the Royal Military Academy (you will not be a civil servant). To be very clear: your contract will be open-ended, but the financing of the contract will be tied to the funding project: this project will last 1 year and is supposed to be extended after, once the funding is available.
- Wage scale: class A1 (holder of a Master's degree in Science or equivalent), class A2 (holder of an Ir degree or equivalent Master's in Engineering Sciences, doctor's degree in the same area of expertise). RMA-Patrimony applies a merit-based research career track, allowing researchers to advance in wage scale based upon annual evaluations.
- Holiday pay.

Extra-legal benefits

- Possibility to benefit from a bilingualism allowance (Dutch/French) following a SELOR test;
- End-of-year bonus;
- Free DKV hospitalization insurance. Possibility of additional affiliation for one or more persons living under the same roof: partner, child(ren) (50% of the price per additional member);
- Bike allowance / Free public transport (home-work commute);
- Free access to campus sports facilities outside working hours;
- On-campus restaurant and cafeteria with democratic prices (discount on the daily menu);
- Meal vouchers (6€/day)
- Flexible working hours within the 38-hour week;
- Teleworking possible with allowance;
- Additional holiday for all staff between Christmas and New Year;
- 26 days holiday / year from the 1st year of contract (then from 45 years: +1 day holiday every 5 years) + 3 days / year dispensation from service offered by the department;
- Advantages and interesting offers thanks to the Benefits@work card (discounts, vouchers...);
- Entitlement to services offered by the 'Office Central d'Action Sociale et Culturelle de la Défense' (OCASC): among others holiday centres, discount on travel organised by the tour operator...;
- Possibility of benefiting from the nursery funded by Belgian Defence (subject to availability).

Work place

- **Main workplace: DLD-Bio: Rue Engeland 642, 1180 Uccle**
- Other workplaces (collaborative network): will be communicated to the preselected candidates
- Occasional travels abroad for scientific conferences and meeting at partner's premises.

Points of contact

- Concerning the research project: Mrs Béatrice SULKA (beatrice.sulka@mil.be)
- Concerning the recruitment modalities: Mrs Helena Bruyninckx (erm-deao-rswo@mil.be)
- For more information about the Royal Military Academy, see <http://www.rma.ac.be>