

JOB DESCRIPTION- Post-doctorate in microbiology – Olgram – Rennes University

Vacancy number **OI-P-20.1**

Function type **Private staff, Post doctorate position at Olgram company. The work will be done at the Rennes University.**

External/ internal **External**

Location **Rennes University**

Placed on **May 2020**

Starting date **October 2020**

The University of Rennes and the Olgram biotechnology company are looking for a

Post doctorate in translational microbiology to study new antimicrobial drug effects and their mechanism of action.

Selection criteria

- PhD in the field of Pharmaceutical Sciences/Pharmacology, Biology (e.g. microbiology or biochemistry with a focus on Peptides biology), (Bio-) physics, or a related discipline (graduation date before project start date)
- Experience in microbiological techniques/assays
- Affinity/experience with use of animal handling (although not mandatory)
- Affinity/experience with statistics;
- Experience in molecular biological techniques is of added value (e.g. transformation of strains, qPCR/PCR, sequencing, westernblots);
- Strong interest in antimicrobial drug research;
- Good communication and interpersonal skills to organize research with both academics and biotechnology company;
- Good communication (verbal and writing) skills in English; French is a plus but not mandatory.
- Confirmed capacity to design experiment, write high-level scientific reports and papers;
- Interested in participating in the life of the laboratory and the company.
- Independent and creative team player.

Our organization

The University of Rennes is a world-class faculty where staff and students work together in a dynamic international environment. It is a faculty where personal and academic development are top priorities. Our people are committed to expand fundamental knowledge by curiosity and to look beyond the borders of their own discipline; their aim is to benefit science, and to make a contribution to addressing the major societal challenges of the future. For more information please visit: <https://international.univ-rennes1.fr/en>

Olgram biotech company: Olgram is an early stage biotechnology company, spin-off of the Olmix group that fights against antibiotic resistance by developing 2 programs: i) the discovery and development of new anti-infectives and ii) the development of immunostimulatory molecules based on new chemical entity found in algae. The research activities are organized around 2 research centers, one in Rennes and one in Nantes. The successful candidate will work in Rennes, to understand the mechanism of action of new anti-infectives. The company has the ambition to strongly grow in the near future and become a leader in the field of antibiotic resistance.

To enable the further development of the company Olgram combines several state-of-the art skills with approaches in clinical pharmacology, immunology and microbiology, which enables development of innovative molecules and unique and original therapies.

Mission

Bacterial resistance to antibiotics has increased over the past few years, being an important threat for public health (Woolhouse et al., 2016). A challenge in the treatment of bacterial infections, including those caused by *Staphylococcus aureus*, is the selection of dormant 'persister' subpopulations that exhibit high levels of tolerance to antibiotics (Conlon et al. 2013). Persisters are non-growing, antibiotic tolerant bacteria within a population of otherwise susceptible cells (Gollan et al, 2019; Balaban et al, 2019). Persisters neither grow nor die in the presence of bactericidal agents and exhibit multidrug tolerance. During infection, pathogens are exposed to stresses in the host and form non-growing persisters that survive both antibiotics and host immune responses, thereby most likely contributing to the relapse of many infections. Since ageing of persister cells in a hostile environment favor accumulation of mutations, concerns have been raised that persistence and tolerance may lead to the development of resistance. Very few novel classes of antibacterial agents are available to treat patients. There is an urgent need to develop alternative strategies against bacterial pathogens (Cattoir and Felden, 2019).

In that context we discovered new peptides (Nicolas et al. 2019) with new anti-infective property. Now the company together with the laboratory of Pr Brice Felden is looking to further develop those molecules and more specifically it will be the role of the successful candidate to find the mechanism of action, key to further develop new chemical entity into a medicine.

Terms and conditions

We offer a 18 months term position, with the possibility of an extension by a further three years, based on a positive evaluation of the progress, personal capabilities and compatibility. Salary ranges from € 2,200 to € 2,600 gross per month (according to experience and negotiation). Special missions within Olgram company could entitle you to extra allowances based on funding. These allowances are explained at a later stage. The planned start of employment is between 01-10-2020 and 01-11-2020.

Olgram offers an attractive benefits package with bonuses if the successful candidate is capable to raise funds (% to be negotiated). Training and career development will be at Olgram charge. Our individual choices model gives you some freedom to assemble your own set of terms and conditions.

Application

Your application should be sent to recruitment@olgram.com and addressed to Pr Brice Felden and Pierre Rocheteau. When applying, please use the following email subject title: Application_NAME_OI-P20.1.

In your application please include the following files:

- A motivation letter (1 page maximum), and references (not necessary letters; persons to contact by email and phone is sufficient in your email).

- A CV

Applicants will be notified if they are invited for video-conferencing interviews.