



澳門大學
UNIVERSIDADE DE MACAU
UNIVERSITY OF MACAU

Job Ref No: 2020002

Position: Postdoctoral Fellow in Bacteriology and Antibiotics Development

Principal Investigator: [Prof. Jun ZHENG](#)

Closing Date: Until filled

Post-doctoral Fellow in Bacteriology and Antibiotics Development

The laboratory of Prof. Zheng Jun is recruiting a postdoctoral fellow, based on the candidate interest, to work on either 1) bacterial pathogenesis, particularly on Type VI secretion system (T6SS), or 2) antibiotics mediated killing in pathogenic bacteria.

Bacterial pathogenesis: Prof. Zheng has been working on the bacterial pathogenesis for over 15 years and is one of the first that discovered T6SS. Since the establishment of his own laboratory, several T6SS effector proteins have been identified and a novel secretion mechanism has been discovered (unpublished data). Several interesting projects to be continued for the detailed function study of T6SS.

Antibiotics mediated killing: In our previous studies (PNAS 2019), the metabolite Ap4A was observed to be produced by bacteria upon antibiotics treatment, whose contraction increases in turn facilitated bacterial cell death by over ten thousand times. Such metabolites are potential drugs for bacterial infection. Project investigating the detail mechanism of action of such metabolite are ongoing. The major responsibilities of the potential appointee include: (1) study mechanisms of action of Ap4A and (2) develop novel antibiotics that mimics the function of the metabolite.

Applicants must have a Ph.D. degree in biological sciences or related fields. Previous publications related to bacterial pathogenesis, antibiotics development etc. in international peer reviewed journals are a prerequisite. Applicants must have a positive work attitude, and are able to work independently and in a team.

Applicants shall also have knowledge and experiences in some of the following areas:

- i. Molecular biology techniques such as gene knock out, Western blotting, RT-qPCR, molecular cloning;
- ii. Protein expression and purification, enzymatic assay development
- iii. Proteomics and genomic analysis;
- iv. Fluorescence microcopy

Contract Period

One year and renewable subject to mutual agreement and availability of funding.



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Remuneration

Remuneration is highly competitive and commensurate with the successful applicants' academic qualification, current position and professional experience.

Application Procedures

Applicants should send an up-to-date C.V. and other relevant documents to Prof. Zheng Jun (email: junzheng@um.edu.mo). In the subject of the email, please clearly identify the following: "Job ref. no. + Name + Position". Applicants may consider their applications not successful if they were not invited for an interview within 3 months of application.

****Personal data provided by applicants will be kept confidential and used for recruitment purpose only****