

Paris, April 11th, 2023

We have a three years fellowship funded by the ANR NASPEC project for a post-doctoral fellow specialized in microbiome studies at the Institut Pasteur. The selected candidate will be working at the [Biology and Genetics of the Bacterial Cell Wall Unit](#) headed by Ivo G. Boneca. This is a collaborative project with the team of [Sean Kennedy](#) at the Institut Pasteur.

The project builds on our previous work on the dissemination of peptidoglycan fragments across the body from the gut. We are looking for somebody that has highly transversal expertise in biochemistry of peptidoglycan, mass spectrometry, cellular and animal models, and in confocal/immunofluorescent microscopy. The postdoc will study the impact of current beta-lactams and novel narrow spectrum beta-lactams aimed at treating EBSL- and/or carbapenemase producing gram-negative pathogens on the peptidoglycome of the intestinal flora and its potential to release immune-stimulatory peptidoglycan fragments.

The successful candidate should have a strong expertise in animal experiments and in microbiology. A strong knowledge in peptidoglycan metabolism and analysis by LC-MSMS is a plus.

Dias Bastos PA, R Wheeler, IG Boneca. 2021. Uptake, recognition and responses to peptidoglycan in the mammalian host. *FEMS Microbiol Rev.* 45(1):fuaa044. <https://doi.org/10.1093/femsre/fuaa044>

Gabanyi I, G Lepousez, R Wheeler, A Vieites-Prado, A Nissant, S Wagner, C Moigneu, S Dulauroy, S Hicham, B Polomack, F Verny, P Rosenstiel, N Renier, IG Boneca, G Eberl, PM Lledo. 2022. Bacterial sensing via neuronal Nod2 regulates appetite and body temperature. *Science.* 376(6590):eabj3986. doi: [10.1126/science.abj3986](https://doi.org/10.1126/science.abj3986).

Wheeler R, PA Dias Bastos, O Disson, A Rifflet, I Galbanyi, J Spielbauer, M Berard, M Lecuit, IG Boneca. 2022. Microbiota-induced active translocation of peptidoglycan across the intestinal barrier dictates its within-host dissemination. *Proc Natl Acad Sci U S A.* 120(4):e2209936120. doi: [10.1073/pnas.2209936120](https://doi.org/10.1073/pnas.2209936120).

Applications (a motivation letter, a full CV and minimum of two references) should be sent to Ivo G Boneca (bonecai@pasteur.fr). The selected candidate will start the latest on October 1st 2023.