

# Brucella

## Microorganism

Biological agent

Seclusion room





High biological security

Incubator



Air lock

Biological agent



Cellular microbiology



Animal housing facility



**Eukaryotic host** 



Level 3

Cellular microbiology

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### **DESCRIPTION**

A BL3 lab is a high biological security area were researchers can handle classified level3 pathogen organisms in the best security conditions. The University of Namur BL3 lab structure, equipment and procedures comply perfectly with the Walloon region Government most recent requirements (Ar. 04 juillet 2002).

The BL3 was built as a «box in the box», an independent structure built inside an existing building. This 120 m<sup>2</sup> infrastructure, accessible through a double airlock, has 3 seclusion rooms, an animal housing facility and a shared preparation and service area. 10 researchers can work there simultaneously.

Prior to using the BL3, individuals are trained in the correct and safe use of the facility. Experimental protocols are reviewed to insure maximum safety of all planned experiments.

#### **EXPERTISE**

The Research Unit in Biology of Microorganisms (URBM) gathers 40 researchers and technicians studying microorganisms (mostly bacteria) at all levels of integration from molecular to cellular bacteriology and their relationship with eukaryotic hosts. Caulobacter crescentus, Capnocytophaga canimorsus and Brucella sp. are used as working models to study the functions, the structure and the interactions of proteins involved in cell cycle-associated processes, regulation of gene expression, metabolism and, more specifically to Brucella and Capnocytophaga canimorsus, in the modulation of the host innate immune response.

#### **EQUIPMENT**

- FLUORESCENCE MICROSCOPE (air-conditioned area + digital camera)
- -80°C FREEZER et 3 BIOHAZARD HOODS
- INCUBATORS (with or without CO2)
- BIOSCREEN

#### Other features:

- all the materials (partition walls, floors, furniture...) are non-porous and chemical-resistant, making cleaning and decontaminating efficient;
- the lab is maintained in constant air depression, to avoid outward leaking;
- incoming and outgoing air is constantly filtered;
- organisms are manipulated under security Class II (laminar flow) biohazard cabinets;
- the power supply is autonomous, in case of electrical failure;
- access and inter-lock control systems for the 2 airlocks;
- waste is managed and treated, notably thanks to a double entry autoclave.

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More info: platforms.unamur.be/platforms/bl3