

Bacterial Cell Surfaces and Pathogenesis Laboratory

Research Projects for Master Students

Sérgio Filipe (sfilipe@itqb.unl.pt)

The different research projects that are available will use the pathogenic bacteria *Streptococcus pneumoniae* and *Staphylococcus aureus* as bacterial models. We want to understand how these bacteria divide and synthesize their peptidoglycan (a large macromolecule from the cell wall that surrounds bacteria, which serves as an attachment site for extra cellular proteins, protects bacteria from the large osmotic forces and is involved in maintaining the bacterial shape). We are also interested in understanding how these bacteria evade detection by the infected host.