

Research Projects in the Laboratory of Bacterial Cell Biology

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Staphylococcus aureus is an extremely versatile pathogen, well known due to its increasing resistance to antibiotics. In fact, there are staphylococcal strains resistant to virtually all classes of currently used antibiotics, which are a major concern in the hospital environment. Last year, the number of deaths caused by drug resistant staphylococci in the United States surpassed the number of deaths associated with AIDS, reinforcing the need to continue research aiming at combating antibiotic resistance in this organism.

In our laboratory we are focused in two areas of study of *S. aureus*: Bacterial cell division and the mechanisms of action and resistance of *S. aureus* to antibiotics that target bacterial cell wall synthesis and therefore inhibit cell division. In these areas, we have different financed grants running and therefore we can offer different research projects.