

PHD SEMINAR #4

29/01/2016 - 16H - CONF ROOM

Bernard Armand Chelli Ponce de Leon: DNA replication arrest in Escherichia coli

DNA replication and cell division are two of the most studied mechanisms in biology. They are fundamental cell mechanisms which if not working properly can lead to cell death or uncontrolled proliferation (cancer). However neither of these mechanisms are fully understood, even in the most simple bacteria. The goal of this presentation is to show how controlled suppression of DNA replication affects coli, suggesting that it may play a role in controlling the cell metabolism.



Rachel Genthial: Characterization of bone cellular network

Bone diseases such as osteoporosis are a major public health concern. The cellular network in bone, also called lacuno-canalicular network (LCN), plays a central role in the modelling and remodelling processes allowing to adapt to external mechanical constraints and therefore to maintain tissue integrity. Although this network seems to be a key element for healthy bone tissue, little is known about its characteristics and the information remains mainly local.

My presentation will explain how we imaged using confocal fluorescent microscopy, segmented and analysed the network in order to extract some interesting characterization parameters. I will also show some possible applications of this work.

**The average human body
contains enough bones**



to make an entire human skeleton.