"Tissue regenerative decline with aging:
focus on muscle stem cells"

Abstract
Our group aims to understand the mechanisms regulating stem cell homeostasis and regenerative functions. Research is specially centered on stem cells of skeletal muscle (i.e., satellite cells). Recently, we have focused on two areas: 1) the functional decline of satellite cells with aging; and 2) the physiopathology of muscular dystrophies, with a specific interest in the contribution of inflammation and fibrosis to dystrophy progression. Concerning the first area, work from different laboratories has demonstrated that both environmental and cell-autonomous signals alter satellite cell regenerative potential with aging. I will discuss our latest results showing that satellite cells in their homeostatic quiescent state are equipped with quality control mechanisms to preserve their fitness, and how age-associate alterations in these protective mechanisms lead to stem cell loss of function and regenerative capacity.

If you wish to meet Pura Muñoz-Cánoves on Friday January 29th, please contact Bénédicte Chazaud (benedicte.chazaud@inserm.fr).
Selected recent publications:


