



Institut NeuroMyoGène



Seminar

Monday September 24th | 11.00 am

Mediathèque Paul Zech,

Faculté de Médecine Rockefeller, Lyon

<https://lyon-est.univ-lyon1.fr/campus/plan-du-campus/plan-du-campus-826251.kjsp?RH=LYONEST>

Edgar Gomes

Faculdade de Medicina da Universidade de Lisboa, Lisbon, Portugal

<https://imm.medicina.ulisboa.pt/en/investigacao/labs/gomes-lab/>

" Mechanisms of nuclear positioning during myofiber formation "

Abstract

Connecting the nucleus to the cytoskeleton is relevant for multiple cellular processes and disruption of these connections result in multiple pathologies. Nuclear positioning within cell cytoplasm requires de connection between nucleus and the cytoskeleton. We are interesting to understand the processes involved in these connections and the role for nuclear positioning in cell function.

We study cell migration and skeletal myofiber formation which required the connection between the nucleus and the cytoskeleton and precise nuclear positioning. We use different molecular and cellular approaches in combination with time-lapse imaging analysis to address these questions.

If you wish to meet Edgar Gomes, please contact Bénédicte Chazaud (benedicte.chazaud@inserm.fr).

Selected recent publications:

Roman W, Martins JP, Gomes ER. Local arrangement of fibronectin by myofibroblasts governs peripheral nuclear positioning in muscle cells. **Dev Cell.** 2018 46:102-111.

Gimpel P, Lee YL, Sobota RM, Calvi A, Koullourou V, Patel R, Mamchaoui K, Nédélec F, Shackleton S, Schmoranzler J, Burke B, Cadot B, Gomes ER. Nesprin-1 α -dependent microtubule nucleation from the nuclear envelope via Akap450 is necessary for nuclear positioning in muscle cells. **Curr Biol.** 2017 27:2999-3009.

Roman W, Martins J, Carvalho FA, Voituriez R, Abella JVG, Santos NC, Cadot B, Way M, Gomes ER. Myofibril contraction and crosslinking drive nuclear movement to the periphery of skeletal muscle. **Nat Cell Biol.** 2017 19:1189-1201.