



Speaker Series

Guest Speaker

“Transient nuclear reprogramming promotes multifaceted rejuvenation at the cellular and tissue levels: towards a new cure for aging?”



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Recent evidence has shown that transient transgenic reprogramming can ameliorate age-associated hallmarks and extend lifespan in progeroid mice. However, it is unknown how this form of ‘epigenetic rejuvenation’ would apply to physiologically aged cells and, importantly, how it might translate to human cells. Our lab shows that transient reprogramming, mediated by transient expression of mRNAs, promotes a rapid reversal of both cellular aging and of epigenetic clock of human fibroblasts and endothelial cells, reduces the inflammatory profile in human chondrocytes, and restores youthful regenerative response to aged, human muscle stem cells, in each case without abolishing cellular identity. Our method, that we named Epigenetic Reprogramming of Aging (ERA), paves the way to a novel, potentially translatable strategy for *ex vivo* cell rejuvenation treatment. In addition, ERA holds promise for *in vivo* tissue rejuvenation therapies to reverse the physiological manifestations of aging and the risk for the development of age-related diseases.

Monday, February 11, 2019

11:00am – 12:00pm

Gonda Building 1st Floor Conference Room, 1357

Light snack will be provided

To meet with Dr. Vittorio Sebastiano, please contact:
Dr. Steve Horvath, shorvath@mednet.ucla.edu

To receive seminar notices, contact Charina McDonald (cmcdonald@mednet.ucla.edu)
Upcoming speakers, <https://medschool.ucla.edu/human-genetics/seminar-series>