

IGM Seminar

Date : Dec 3, 2014 16:00 start

Place : 5st Floor IGM Seminar Room

Prof. Eduardo Moreno

***Institute of Cell Biology
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「Cell Fitness: From Basic Biology to Biomedical Research」

Humans are able to detect fitness decay in other colleagues by simply looking at the greying of the hair or the wrinkles in their faces. Work from my laboratory in the last few years showed that cells can also detect fitness levels of neighbouring cells using a molecular code. This molecular code is composed by different isoforms of a transmembrane protein called Flower that creates a novel mechanism used to reveal the fitness of a cell to its neighbours. Those "fitness fingerprints" can be used to mediate cell selection by recognizing and eliminating less fit cells. In terms of basic biology, we are currently interested in the molecular and genetic mechanisms that drive active cell selection within tissues. In terms of more applied science, we want to explore how disruption of the mechanisms that mediate cell selection create tissue degeneration, including neurodegeneration, cancer and ageing.

Host : Yasuyuki FUJITA (Molecular Oncology) 5530