ERC Starting Grant Awarded to Prof. Melike Lakadamyali

The grant supports young researchers to establish themselves as independent research leaders.

July 22, 2013

ICFO Group Leader and Nest Fellow, Professor Melike Lakadamyali, has been awarded a European Research Council Starting Grant to pursue her project "On the move: Motor cargo and motor-microtubule interactions studied with quantitative, high spatio-temporal resolution microscopy in vivo". The project aims to understand how organelles and other cargo move from one place to another inside a cell. Intracellular transport plays an important role in maintaining the healthy functioning of a cell and failure of transport can lead to neurodegenerative diseases such as Amyotrophic Lateral Sclerosis (ALS). Intracellular transport is mediated by nanoscale molecular machines (motor proteins) that convert the energy of ATP hydrolysis to mechanical motion. While these motors have been extensively studied in vitro, the crowded environment of the cell, the small size of the motors and highly dynamic nature of transport makes it very challenging to study them *in vivo*, in their native environment. MOTORS project will combine cutting edge advanced microscopy methods

such as super-resolution imaging with state-of-the-art molecular biology tools to study how motors function inside a living cell. The knowledge gained in this project will constitute a big step forward in solving what goes wrong when transport fails in disease.

The European Research Council is a research funding body created under the EU's 7th Framework Programme for Research. The ERC Starting Grant was created in response to a deficit of funding opportunities for exceptional young researchers at an important development stage of their careers, and offers important opportunities for early career independence.

Congratulations Melike!



Prof. Melike Lakadamyali