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Postdoctoral Junior Leader "la Caixa" Fellowship

ICFO Prof Nicoletta Liguori receives prestigious fellowships from the [la Caixa](#) Foundation

July 06, 2022

The [la Caixa](#) Foundation has awarded a prestigious fellowship in its Postdoctoral Junior Leader programme to Prof Dr Nicoletta Liguori, new leader at ICFO of the [Photon Harvesting in Plants and Biomolecules](#) research group. The [la Caixa](#) Foundation grants postdoctoral Junior Leader fellowships for excellent researchers, of any nationality, who wish to continue their research career in Spain or Portugal in the STEM area (Science, Technology, Engineering and Mathematics). The goal of this programme is to foster high-quality, innovative research in Spain and Portugal and to support the best scientific talent by providing them with an attractive, competitive environment in which to conduct excellent research. Prof Liguori received her PhD from the VU Amsterdam (NL) with a PhD project that combined several spectroscopic approaches, especially ultrafast spectroscopy, with MD simulations to investigate how the light-harvesting complexes of plants and algae turn photoprotective mechanisms on. In 2018 she obtained a prestigious national NWO VENI grant that allowed her to establish her independent research line in the LaserLab of the VU Amsterdam. Her current focus is on developing methods to study the functional response of photoactive (bio)molecules to changes in pH. To this end, Nicoletta has developed a novel ultrafast multipulse spectroscopic tool that she is now combining with a mix of state-of-the-art computational methods.

The research program that Nicoletta will develop at ICFO will be aimed at understanding how changes in light, structure and environment regulate the molecular mechanisms of photoactive (bio)molecular systems. Her group will specifically develop and apply innovative spectroscopic methods tailored to: i) induce in a controlled way the physiological changes that photoactive molecules experience in their natural environment, and ii) probe in real time how, and how fast, photoactive molecules respond to such changes and switch their function on/off. Her group will combine these experimental tools with cutting edge MD-based methods, to obtain structural detail of such molecular switches. The group's research output can potentially refine our fundamental knowledge of how living and artificial systems sense

and respond at the molecular level to changes in light and environment. This information can also be essential for future rational design of (bio)inspired molecular sensing systems.

Congratulations Nicoletta!