

Marie Curie Post-doc Positions at Ca' Foscari University of Venice "Expression of Interest" for hosting Marie Skłodowska-Curie Fellows – Call 2019

1. Interested institution (legal person): Ca' Foscari University of Venice

2. Department/Centre:

Department of Molecular Sciences and Nanosystems, DSMN (https://www.unive.it/pag/28233)

The department runs research on molecular and nanosystems for advanced applications, including catalysis, renewable energies, solar cells, solar fuels, CO₂ capture, sustainability and green chemistry, protection of cultural and artistic heritage, bio- and nano-materials, (bio-)sensors, drug delivery, precision and personalized medicine, biomolecular engineering. The department is equipped with state-of-the-art tools for production and characterization of nanomaterials, including PVD, CVD and other chemical routes, optical and electron microscopies (SEM, TEM), scanning probe microscopy, XRD, UV-vis, fluorescence, Raman and IR spectroscopies, electrochemical workstations (potentiostats/galvanostats), scanning electrochemical microscopy (SECM). A brand-new biolaboratory was fully equipped with state-of-the art tools, including multiple large and small volume centrifuges, bacterial and mammalian cell culture incubators and hoods. fluorescence inverted microscope, a live cell imaging system, a high-throughput multicolor flow cytometry cell analyzer, a fast protein liquid chromatography (FPLC) system, high-throughput parallel solid phase peptide synthesizer, multimode plate reader, analytical and preparative HPLC, gel electrophoresis apparatus, thermocyclers, real-time PCR, chemiluminescence systems and UV-vis spectrophotometers. The easy accessibility to all the equipment makes DSMN the ideal place, where carrying out high quality inter- and multi-disciplinary research with the strong support of the other researchers and colleagues. The strong connections with top-quality Institutions worldwide offers the possibility to networking and developing longlasting collaborations. The department is expanding, attracting new personnel at all the career stages, and welcomes highly motivated and young researchers to strengthen the research environment and develop internationally.

3. Position, scientific requirements, topic, scientific panel:

Position: Post-doctoral fellow / Junior researcher

Scientific requirements: PhD in Physics, (Physical/Analytical) Chemistry, Materials Science

The fellow should have experience on the synthesis and characterization of inorganic and hybrid nanomaterials, mainly for energy and environmental applications, OR advanced electrochemical techniques, mainly for analytical characterization of small molecules (e.g. therapeutic drugs, pollutants, etc.) and physico-chemical characterization of smart materials used in biosensing applications and energy storage/conversion devices, OR consolidated expertise on scanning probe microscopies (e.g. SEM, TEM, AFM).

The fellow should have leadership abilities and international experience in research and/or teaching.

Topic(s):

We are interested in Marie Skłodowska-Curie research proposals covering the following topics:

1) Nanostructured materials for energy & environment (topics of interest: solar cells, (photo)electrochemical water splitting, luminescent solar concentrators)

2) Advanced bio- and nano-structured platforms to develop next-generation biosensors with applications in the field of precision and personalized medicine in oncology.

3) Advanced bio- and nano-structured platforms capable of providing superefficient electron transfer for applications in electroluminescent devices and/or energy storage/conversion systems.

3) Scanning probe microscopies for functional characterization of nanostructured materials for energy storage/conversion, electroluminescent systems and biosensing platforms

Scientific Panel:

X Chemistry (CHE)	Life Sciences (LIF)
X Physics (PHY)	Information Science (ENG)
For further details, see the list of descriptors: h	ttp://ec.europa.eu/research/participants/data/ref/h2020/other/guides for applicants/h2020-guide-appl-msca-if en.pdf



4. Contact person(s):

Prof. Alberto Vomiero (https://scholar.google.it/citations?hl=it&user=abhN0ZAAAAAJ)

- E-mail: alberto.vomiero@unive.it
- Dr. Federico Polo (<u>https://scholar.google.it/citations?hl=it&user=-y-a1RYAAAAJ</u>) E-mail: <u>federico.polo@unive.it</u>

5. Deadline and proposal drafting:

Next MSCA-IF Call deadline is **September 11th, 2019.**

Drafting a Marie Curie proposal requires some time to be accurately revised and shared with the supervisor and the research advisors. Please contact us as soon as possible and no later than May 31st, 2019.

6. Further information:

Marie Skłodowska-Curie Individual Fellowships - IF: http://www.unive.it/pag/28536/ Meet our fellows: http://www.unive.it/pag/30982/

Ca' Foscari International Research Office, Individual Funding Unit - mariecurie@unive.it