



Calls for Expression of Interest – Marie Skłodowska-Curie Actions – Postdoctoral Fellowships 2021 (MSCA-PF)

The Marie Skłodowska Curie Postdoctoral Fellowship programme (MSCA-PF) is a highly renowned European funding scheme. It offers talented scientists the unique chance to set up 2-year research projects on their own with the support of a supervising team. Besides providing an attractive grant including mobility, family and research allowances, it represents a major opportunity to boost the career of promising researchers.

The submission deadline of proposals to the European commission is set on **15th September 2021** and successful research proposals **selected for funding may start in May 2022 at the earliest.**

Université de Bretagne Occidentale (UBO) and its partners institutions are thus looking for excellent postdoctoral researchers with international profiles to write persuasive proposals to apply for **Marie S. Curie Postdoctoral Fellowship grants in 2021.** The topics and research teams presented below [and on Nature Careers](#) have been identified in this regard.

This initiative aims to **increase chances of success for motivated fellows** by offering dedicated support from both our scientific and technical staff to develop competitive and excellent research projects.

Research fields and pre-identified Topics

Main Research Field	Sub Research Field	Research project title
Biology, medecine, health	Cellular and molecular biology	The development of multimodular formulations adapted to the Cystic Fibrosis gene therapy.
	Food microbiology	Understanding the action mode of lactic acid bacteria bioprotective cultures against fungi responsible for dairy product spoilage

Biology, medecine, health	Invertebrate biology	<u>Modelling the combined effects of ocean acidification (OA) and warming (OW) on the European abalone Haliotis tuberculata</u>
	Invertebrate microbiology	<u>Effect of seasonality on polar bivalves' microbiota</u>
	Neuroscience	<u>CDK Inhibition of cerebral and blood inflammatory cells to decrease cerebral edema after focal cerebral ischemia</u>
Chemistry	Analytical chemistry	<u>Development of compound-specific amino acid isotope analysis to trace carbon and nitrogen flows in marine ecosystems.</u>
	Inorganic chemistry	<u>Copper-oxygen adducts for C-H bond activation</u>
	Polymer chemistry	<u>Biodegradable polyCarbonate for antifouling coatings (BioCargo)</u>
Earth and Universe Sciences, Space sciences	Geodynamics	<u>How does magma modify with time continental lithosphere rheology?</u>
	Geomorphology	<u>Calcareous cliff erosion</u>
	Physical Oceanography	<u>Multiscale ocean-atmosphere interactions</u>
Engineering sciences	Mechanics of materials	<u>Accurate material digital twin for applied mechanics and forming applications</u>
Information and Communication Sciences and Technologies	Computer architecture	<u>Reconfigurable Computing in Memory</u>
	Image processing	<u>Quantifying 3D benthic fauna spatial interactions using X-rays CT-Scan</u>

Information and Communication Sciences and Technologies	Information theory	<u>Code on High Cardinality Set (CHICS)</u>
	Machine learning	<u>Machine learning based identification of intraoperative disorders during virtual reality based awake brain surgery (VIRAS-DATA)</u>
	Machine learning	<u>Application of Machine Learning techniques to classify hydroacoustic events in large acoustic database collected in the ocean</u>
	Signal processing	<u>FANCY - Flexible Architecture for Next Communication Standards</u>
Physics	Chemical physics	<u>Longer Life Electrodes for Alkaline Water Electrolysis</u>
Social sciences	Environmental economics & policy	<u>Comparative analysis of energy transition and climate change governance in the Europe/France and the U.S.</u>
	Environmental economics & policy	<u>Contribute to a hybrid governance to protect and manage remarkable areas of the high seas: Thermal Dome and Sargasso Sea</u>
	Social psychology	<u>Exploratory study for the definition of decision criteria to promote acceptance and appropriation of an e-health application</u>

Eligibility criteria for prospective applicants

Academic qualification: By the MSCA-PF call deadline (September 15th, 2021), applicants must be in possession of a doctoral degree, defined as a successfully defended doctoral thesis, even if the doctoral degree has yet to be awarded.

Research experience: Applicants must have a maximum of 8 years full-time equivalent experience in research, measured from the date applicants were in possession of a doctoral degree. Years of experience outside research and career breaks (e.g. due to parental leave), will not be taken into account.

Nationality & Mobility rules: Applicants can be of any nationality but must not have resided more than 12 months in France in the 36 months immediately prior to the MSCA-PF call deadline (September 15th, 2021).

How to apply

We encourage all motivated researchers to [apply through the EU Survey application form \(link here\)](#), before May 7th, 2021. Your application has to include:

- **a CV including:** (i) the exact date of your stay in each position and/or country and (ii) a list of publications;
- **a research outline** (up to 2 pages) identifying the research synergies with the faculty members and pre-identified topics described above

Following the reception of your application, we will check the eligibility of your profile for a MSCA-PF application. Then supervisor(s) will select the most promising applications regarding the **excellence-based competitive conditions** and evaluation criteria of the MSCA-PF programme and contact them in due course (mid-May) for further discussions and proposal writing until September 2021. If funded, the project proposed in September 2021 could start from May 2022 onwards.

To be crystal clear: **it will be the responsibility of the selected applicants to develop and write their own application proposals**, even if they will benefit from the support of their respective supervisors. In addition, you will also receive dedicated support from the European project office to write a persuasive proposal to the European union.

Estimated timetable

Deadline to apply to the present calls for expression of interest	7th May 2021
Selection of the most promising application(s)	May – June 2021
Writing the MSCA-PF proposal with the support of the above-mentioned supervisor(s)	June – September 2021
Deadline of the EU 2021 MSCA-PF call	15th September 2021
Publication of the evaluation results	February 2022
Start of the research project (if funded)	May 2022 (at the earliest)