

**Marie Skłodowska Curie Action – Postdoctoral Fellowship 2023**  
**Expression of interest – Hosting offer**  
**(MSCA-PF-2023)**

<b>Contact Person/Scientist in charge</b> <i>(data of the principal investigator of the research group/lab or scientific supervisor)</i>	<b>Name</b>	Thomas
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<b>Department /Institute /Centre</b> <i>(data of the centre/department where the fellow would be located)</i>	<b>Name</b>	IRCP (Institut de Recherche de Chimie Paris), Chimie ParisTech
	<b>Address</b>	11 rue Pierre et Marie Curie 75005 Paris
<b>Research Area</b> <i>(Please select the research area: corresponding to the eight MSCA evaluation panels. You can select between one and up to three scientific areas per EOJ)</i>		Chemistry (CHE)
<b>Brief description of the Centre/Research Group/Team</b> <i>(max. 1,600 characters including spaces: information about the research centre or research group, scientific staff. Please include URL if possible)</i>		Located at Chimie ParisTech in the heart of Paris (France), the Chimie Paris Research Institute (IRCP) promotes integrated research, from upstream to downstream and from fundamental to applied research. Its themes cover a wide range of chemical fields: from molecular and polymer chemistry to energy, materials and processes. Within IRCP, the COCP (Organometallic Chemistry and Polymerization Catalysis) team brings together chemists specialized in the synthesis of molecular catalysts and polymers with a focus on bio-centered aspects, including the design of eco-efficient processes, the synthesis of novel renewable macromolecular architectures, and mechanistic studies.
<b>Project description / Topic of interest</b> <i>(max. 1,800 characters including spaces: short description of the research project / research line where the fellow would be hosted and develop his /her project)</i>		One-pot catalysis is one of the strategies used by Nature for building macromolecules. However, these biological processes rely on highly complex biocatalysts thus limiting their industrial applications. In the same biomimetic spirit, we want to initiate a research effort to synthesize <b>biobased</b> and <b>biodegradable</b> polymers via one-pot catalytic transformations, where “activated” monomers are synthesized from raw materials (in one or more steps) and subsequently (co)polymerized. The objectives for this are clear: not only can a reduction in workload, waste, and energy consumption be achieved, but also the synthesis of complex products that are otherwise difficult to obtain (e.g. because of thermodynamic hurdles) comes within reach. In other words, the combination of chemistries may allow the direct synthesis of macromolecules with high structural complexity. Therefore, we want to direct investigative efforts toward the synthesis of new <b>renewable</b> monomers and the subsequent catalytic conversion of these monomers into their corresponding polymers. The general idea is to use a one-pot procedure of combining the synthesis of new biomass-derived monomers with subsequent polymerization by well-defined metal-based catalysts, aiming at novel polymeric materials.

**Applications: documents to be submitted and deadlines**

*(Please indicate the documents that the candidate fellow should submit to establish contact: CV, letter of motivation, letter of references, etc., please indicate deadline. Recommended deadline: April 2023)*

Please provide a CV, a letter of motivation, and at least one letter of references, etc.

The deadline for applications is April 2023.