

## ESR 12 Project Information Sheet

<b>Project Title</b>	<i>Artificial organelles in cells</i>
<b>Reference number</b>	BIOMOLMACS_ESR_12
<b>Host Institution/Company</b>	University of Basel
<b>Supervisor(s)</b>	Prof. Wolfgang Meier
<b>Research Group</b>	Meier Group
<b>Department/School</b>	Department of Chemistry
<b>Duration</b>	36-months full-time employment contract provided and ESR enrolled on 4- year structured PhD.  ESR should be required to self-fund after the initial 36 months for successful completion of the PhD program at the University of Basel.
<b>Funding information</b>	Funding agency: H2020-MSCA-ITN-2019 (Proposal no:859416)
<b>Early Stage Researcher Salary and Allowances</b>	Living allowance: <b>approximately</b> €45,000/year + mobility allowance of €7,200/year + family allowance where applicable ( <b>all values before tax and social security payments</b> ) This calculation is to give you an idea about the level of funding. The actual salaries can be found on the official job application link below.
<b>Pre-application closing date</b>	28 <sup>th</sup> of February 2020
<b>Official application closing date</b>	15 <sup>th</sup> of March 2020
<b>Start date</b>	1 <sup>st</sup> of April 2020 or as soon as thereafter
<b>Official job application link*</b>	<a href="https://www.euraxess.ch/jobs/search/country/switzerland">https://www.euraxess.ch/jobs/search/country/switzerland</a> <a href="https://www.unibas.ch/de/Mitarbeitendenportal/Aktuell/Offene-Stellen.html">https://www.unibas.ch/de/Mitarbeitendenportal/Aktuell/Offene-Stellen.html</a>

*\*The pre-application form should be submitted to [biomolmacs@gmail.com](mailto:biomolmacs@gmail.com) by latest 28<sup>th</sup> of February 2020. Following the initial eligibility assessment, the applicants will be requested to submit their applications using the links provided specific to each institution/company.*

## Post Summary

### Brief description of the project:

ESR 12 will focus on the development of molecular factories for in-vivo drug production and release. An efficient and selective encapsulation of active nanoreactors is the basis for locally producing specific drugs. The selective encapsulation of nanoreactors in a larger compartment is based on newly synthesized, biodegradable, amphiphilic block copolymers. The kinetics of the reaction cascade in the nanoreactors has to be quantified in solution, in-situ and in-vivo. This requires combination of several sensitive methods like dynamic spectroscopy, fluorescence correlation spectroscopy etc.

Further information on the research interests of Prof. Wolfgang Meier can be found on their website.

<https://www.chemie1.unibas.ch/~meier/>

### Standard duties and responsibilities of the ESR

For the 36 months of employment contract the ESR will be required to work exclusively on the MSCA ITN programme (BIOMOLMACS). In all cases, all duties and responsibilities will be clearly outlined in the researchers Personal Career Development Plan, as determined in the early stages of the project between the ESR and their supervisory committee.

### Person Specification

#### Qualifications

##### *Essential*

Applicants should hold or expect to attain, as a minimum a 2:1 Honours degree, or equivalent, in Chemistry, Materials Science, Biomedical Science, Polymer Chemistry, Pharmaceuticals or related area.

#### Knowledge and Experience

##### *Essential*

- Research project carried out in at least one of the above disciplines.
- A demonstrated knowledge of at least three of the following: pharmaceutical formulation development, drug delivery, cell culture/molecular biology, nanotechnology, polymerisation techniques.

##### *Desirable*

Work placement undertaken in an industry related to the above disciplines

#### Skills and Competencies

##### *Essential*

- Applicants whose first language is not English must submit evidence of competency in English, please see University of Basel's English Language Requirements for details.
- Evidence of interest, aptitude and research experience in the above disciplines.

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#### Further information

For any informal queries, please contact Prof. Wolfgang Meier by email at [wolfgang.meier@unibas.ch](mailto:wolfgang.meier@unibas.ch)

For queries relating to the application and admission process please contact Dr Gokhan Yilmaz at [biomolmacs@gmail.com](mailto:biomolmacs@gmail.com)  
Website: [www.biomolmacs.com](http://www.biomolmacs.com)

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