

MoU JRC – FVG
AREA 1 – Mobility Scheme
JRC proposed Activity

Reference no.:	20
JRC Directorate	F - Health consumers and reference materials
Unit	F.2 Consumer Products Safety
Location	JRC, Ispra (Italy)
Short description of the activities of the Unit	<p>The directorate F Health Consumer and Reference Materials has a state-of-the-art equipped laboratory for Nanobiotechnology studies. Its institutional work focuses on a science-based understanding of nanomaterial properties and their interactions with biological systems in order to support the safe and sustainable development of nanotechnology. This is carried out by a multidisciplinary group of chemists, physicists, biologists, and materials scientists with extensive experience in the fields of nanobiosciences and materials science.</p> <p>With a wide range of facilities and cutting-edge instrumentation, the laboratory fosters interdisciplinary studies, with a special emphasis on characterisation of nanomaterials, nanomedicines, and advanced materials and their interactions with biological systems.</p>
Title of the JRC proposed Activity:	Characterization Methods and Standards for nanoparticles for biological, medical, and food applications
Short description of the proposed activity:	<p>There is a growing interest in the use of nanoparticles for innovative applications in different fields, such as diagnostic devices, medical applications, and the food sector.</p> <p>The development of new materials for those fields requires the characterization of nanoparticles in complex matrices such as food or biological systems. Such characterization is particularly challenging, but it is a pre-requisite to assure the quality and safety of new materials.</p> <p>The proposed activity will develop improved methods and protocols for the accurate characterization of relevant nanoparticles for applications in the medical/biological field or food sector.</p> <p>The work should also lead to the development of appropriate protocols with the goal to later develop them into documentary standards in collaboration with partner international institutions, such as NIST.</p>
Required profile of the Partner Institution:	University or Research Institution with sound expertise in the field of chemistry and pharmacy, with advanced research activities and PhD programs in areas such as nanotechnology

Indicative required profile of the researcher/expert (that will implement the activity)	Chemistry, Biochemistry, Pharmacology, Physics, Food Science or related field of study. PhD and practical laboratory experience in one or more of the techniques to be used in the project would be an asset.
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