JRC Nanobiotechnology Laboratory

Training Request form

(Version February 2024)

Note

This form must be sent by e-mail to: JRC-OPEN-NANOBIOTECH@ec.europa.eu with copy to pascal.colpo@ec.europa.eu

Call	2024-1-TCB-NANOBIOTECH
Proposal acronym	
Name of the lead user	
Name of the user	
Selected Topic	

TOPIC 1 : HANDS-ON TRAINING ON DETECTION AND CHARACTERISATION OF MICRO(NANO)PLASTICS IN MEDIA CONTRIBUTING TO HUMAN EXPOSURE		Ranking preferences from 1 (most preferred) to 7 (less preferred)
Raman-microscope	Microplastics characterisation	
FTIR-Microscope with focal-plane array technology	Microplastics characterisation	
Enhanced Dark field Microscope	Nanoparticle Hydrophobicity determination	
Scanning Electron Microscope with EDX	Microplastics characterisation	
Asymmetric Flow-Field Flow Fractionation (AF4)	Nanoparticle separation and sizing with online coupled detectors (MALS, DLS, UV/VIS, RI)	
Pyrolysis GC-MS	Identification and quantification of e.g. polymers	
TOF-SIMS surface analysis system	Surface chemistry Analysis	

TOPIC 2 : HANDS-ON TRAINING ON DETECTION AND CHARACTERISATION OF NANOMATERIALS IN VARIOUS MATRICES		Ranking preferences from 1 (most preferred) to 7 (less preferred)
Inductively coupled plasma Mass spectrometry: standard, single particle and single cell analysis mode. (ICP-MS, spICP-MS, scICP-MS)	Determination of size distribution (size and number) of nanomaterials (sp), quantification of metal-associated content in individual cells	
Enhanced Dark field Microscope	Nanoparticles Hydrophobicity determination	
Dynamic Light Scattering (DLS)	Sizing of nanoparticles	
Scanning and Transmission Electron Microscope with EDX	Microplastics and nanoparticles characterisation	
Asymmetric Flow-Field Flow Fractionation (AF4)	Nanoparticle separation and sizing with online coupled detectors (MALS, DLS, UV/VIS, RI)	
New Approach Methodology for cell analysis	Measurements of nanoparticles interactions in biological systems	
Introduction to 3D cell models	Bio-printing	

TOPIC 3 : HANDS-ON TRAINING ON CHARACTERISATION OF NANOMEDICINES		Ranking preferences from 1 (most preferred) to 10 (less preferred)
Microfluidic nano-synthesizer	Synthesis of lipid nanoparticles, liposomes	
Enhanced Dark field Microscope	Nanoparticle Hydrophobicity determination	
In vitro assays	Cell viability assays	
Transmission Electron Microscope with EDX	Nanoparticles characterisation	
Analytical Ultracentrifuge	Liposomal and lipid-based nanoparticles and proteins sizing	
Liquid chromatography (HPLC-DAD, CAD)	Quantification of lipids in lipid-based nanoparticles formulations	
Multiplex ELISA	Quantification of human cytokines triggered by nanomaterial exposure	
Asymmetric Flow-Field Flow Fractionation (AF4)	Nanoparticle separation and sizing with DLS	
Surface Plasmon resonance	Biomolecular interaction study	
Introduction to 3D cell models and bio-printing		