

Nanomaterials for Biosensing			
	Organiser	Institution	Contact
	Arben Merkoçi	Catalan Institute on Nanotechnology (ICN), Barcelona Spain	arben.merkoci@icn.cat
F3.1	Summary		
	<p>Nanomaterials-based biosensing systems are shown to be excellent tools for various fields that include diagnostics, safety and security between other industrial applications. The need for point of care diagnostic tests has increased enormously in the last years. Nanomaterials (i.e. nanoparticles, nanotubes, graphene etc.) thanks to their optical and electrochemical properties are bringing significant advantages in the design and application of novel biosensors and in this context of diagnostics tests. The developed devices take advantages of enhanced electrochemical or optical properties of nanomaterials while being used as transducers or labels in immunoreactions or DNA hybridization reactions including as simple platforms such as paper based lateral flow sensors. In addition lab-on-a-chip platforms that integrate nanomaterials either as detector phase or as signaling labels to achieve very low detection limits with interest for diagnostics or environment monitoring are being developed. Given the interest for improved biosensing alternatives this symposium will cover various aspects related to the development of efficient, fast, low-cost and user-friendly diagnostic devices based on nanotechnology and nanomaterials.</p>		