

	Dr Matthias Roesslein		
Organisation	Empa		
	<p>Dr. Matthias Roesslein - senior scientist - works at Empa since 1996. As a trained chemist with specialization in physical chemistry and statistics he thenceforward became one of the experts worldwide in ‘measurement science in conjunction with qualification, traceability, measurement uncertainty and quality management systems’. The main focus was first on applying the general principle of measurement science in analytical chemistry, where amongst other things he wrote major parts of a number of international guidelines as a member of the CITAC-Eurachem working group on ‘measurement uncertainty and traceability’. In 2006 he obtained a position as ‘Senior Scientist’ and joined the laboratory for ‘Materials-Biology Interaction’ of Empa focusing on different subjects, such as the standardization of in vitro assays elucidating the effect of nanoparticles on different cell types and the quality of next generation sequencing results. For this purpose he established a close collaborations with two groups in the division ‘biosystems and biomaterials’ at NIST and obtained in 2008 the status of a foreign guest researcher. This collaboration led to a number of novel approaches gauging the performance and quality of in vitro assays. Beside that he contributed strongly to the progress of the Nanoparticle Tracking Analysis (NTA) measurement that are developed by NanoSight by participating in numerous round robins and consulting on the statistical analysis. Currently he is establishing different NGS methods, such as whole transcriptome or target exon sequencing, for answering specific questions related to the interaction of medical nanoparticles with biological system. Beside that he strongly focuses on different aspect of translational science.</p>		
Role in the EU-NCL	Matthias Roesslein leads the effort to qualify all from the NCL transferred assays or methods that will be used in the characterisation cascade of the EU-NCL and heads the quality control management system. In this context he coordinates together with Simon Baconnier the scientific discussion of the core expert team (CET) of the EU-NCL.		