

# Welcome to QualityNano Transnational Access (TA)

Fully funded access to equipment & technical expertise at 15  
nano-characterization laboratories in Europe

## Norwegian Institute of Air Research

### Leica Fluorescence Microscope

Category:  
D. Particle Exposure  
Assesment

#### Technology Overview

The Leica DMI3000 research microscope is useful tool supporting all transmitted light methods including fluorescence, live cell, time-lapse imaging, high-speed multi-fluorescence optical sectioning, micromanipulation, and more.

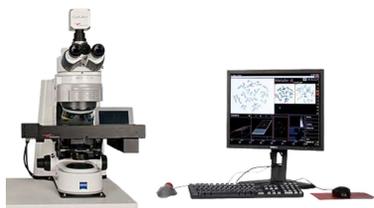


### Metafer Slide Scanning Platform

Category:  
D. Particle Exposure  
Assesment

#### Technology Overview

Metafer is a special platform to automatically scan samples. Metafer works in conjunction with every standard microscope (fluorescent and light). Metafer conveniently automates a wide area of microscopic image analysis applications for different kinds of experiments. Due to Metafer's modularity and its flexible architecture, it can be useful in a vast array of applications, including cytogenetic diagnostics, hematology, pathology, toxicology.



### NanoSight NS500

Category:  
C. Particle characterization  
in situ & ex situ

#### Technology Overview

The NanoSight NS500 Instrument provides an easy-to-use, reproducitble platform for specific and general nanoparticle characterization. With the NS500 you can analyze the presence, size distribution, concentration and fluorescence of all types of nanoparticles from 10nm to 1000nm depending on the instrument configuration and sample type.



### ZEISS LSM Laser Scanning Microscope

Category:  
D. Particle Exposure  
Assesment

#### Technology Overview

The laser scanning 3D microscope uses laser light in a confocal beam path in order to capture defined optical height sections of the sample and combine them in a three-dimensional image stack, which is the basis for topographic calculations. Surface height differences ranging from the nanometer to the millimeter scale can be determined with equal precision and 16 bit resolution ensures excellent image and topography quality and good edge detection.



### ORIGINS by Elchrom Scientific

Category:  
D. Particle Exposure  
Assesment

#### Technology Overview

ORIGINS by ElchromTM Scientific is an advanced, easy-to-use electrophoresis apparatus with special features such as temperature control that provide unparalleled reproducibility, resolving power, throughput, speed and convenience. It can be use used with Elchrom ready-to-use hydro gels.



### Comet Assay Training Course

Training course is designed for those who want to learn how to make Comet assay (SCGE - single-cell gel electrophoresis). It is a micro gel electrophoresis technique that measures DNA damage at the level of single cells.

The alkaline Comet assay detects strand breaks and alkaline labile sites. Additionally to strand breaks, oxidized DNA lesions such as 8-oxo Guanine can be measured by modification of the assay with lesion specific enzymes.

Training includes learning to operate the equipment: Leica fluorescence microscope, Metafer System Automatic Scanning Slides Platform, Origins by Elchrom. Image analysis system Comet Assay IV v4.3 from Perceptive Instrument.

Category:  
D. In-vitro toxicity studies

## About QualityNano

QualityNano is an analytical research infrastructure whose purpose is to drive high quality research and testing practices for assessment of the potential risks posed by nanomaterials.

QualityNano will provide Users with access to 15 major European facilities for nanomaterials processing, characterisation and exposure assessment to support their ongoing research in these areas.

Access is via a single application and evaluation process.

QualityNano is able to meet the Users' costs for:

- Research (bench fees and consumables)
- International travel
- Local accommodation while based at the TAF
- A per diem to contribute towards living costs.

Note: TA results must be made publically available via publication / patent / PhD thesis etc.

### Good Laboratory Practice Training

The Training course is designed for researchers who want to start or improve their study of nanoparticles according to GLP standards.

In our laboratory we have developed a quality assurance system in compliance to GLP in which a large part was devoted to working with nanomaterials.

Training includes learning how to prepare study plan, how to monitor experiments and archive data, how to handle and work with nanoparticles according to GLP rules in in vitro toxicology lab.

Category:  
D. In-vitro toxicity studies

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#### Proposal submission:

Access is granted via a unified application process via 6-monthly TA call, available on-line under: [www.qualitynano.eu](http://www.qualitynano.eu)

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