CERIC

Central European Research Infrastructure Consortium

Open for Industry

Pharmaceutical, Medical and Biotech

CERIC techniques can provide much more precise information on the molecular structure and behaviour of different materials and molecules. Among others, CERIC can help to understand variability in drugs and their behaviour, critical for addressing the problem of failing to identify effective drugs or to study biosimilars.

- Drugs and drug delivery systems
- Proteins
- DNA
- Medical and medical devices
- Catalysts characterisation and behaviour
- Biotechnology





Drugs and drug delivery systems

CERIC offers support in defining drug delivery systems, drug formulations and Active Pharmaceutical Ingredients (API), and interactions with excipients and release mechanisms in different kinds of formulations. Studies of new contrast media for the definition of new protocols in the medical field and in drug delivery are also available.

Proteins

CERIC can perform the identification and characterization of proteins (including protein complexes), even in the field of biosimilars, their size, agglomeration and dispersion (e.g. for drug delivery applications). CERIC can support high throughput production of recombinant proteins and the fabrication of protein nanoarrays.



DNA

Control studies on DNA to prevent cellular abnormalities, genetic diseases and the onset of cancer can be carried out. DNA's interaction with pharmaceutical compounds can also be determined.

Medical and medical devices

CERIC offers studies of new types of scaffolds functionalised with different types of cells. Studies of human organs, composition of stones, and mammographic imaging can also be provided, with a resolution of a few to hundreds of microns.



Catalysts characterisation and behaviour

Surface, interface and electronic properties and behaviour of catalysts can be defined. CERIC supports probing new catalysts at an atomic level and the way properties of catalysts change during operation following the evolution of components.

Biotechnology

Testing of biosensors' biofunctionalisation and defining the performance of biocompatible materials for virology, cellular biology or cancer research are offered.