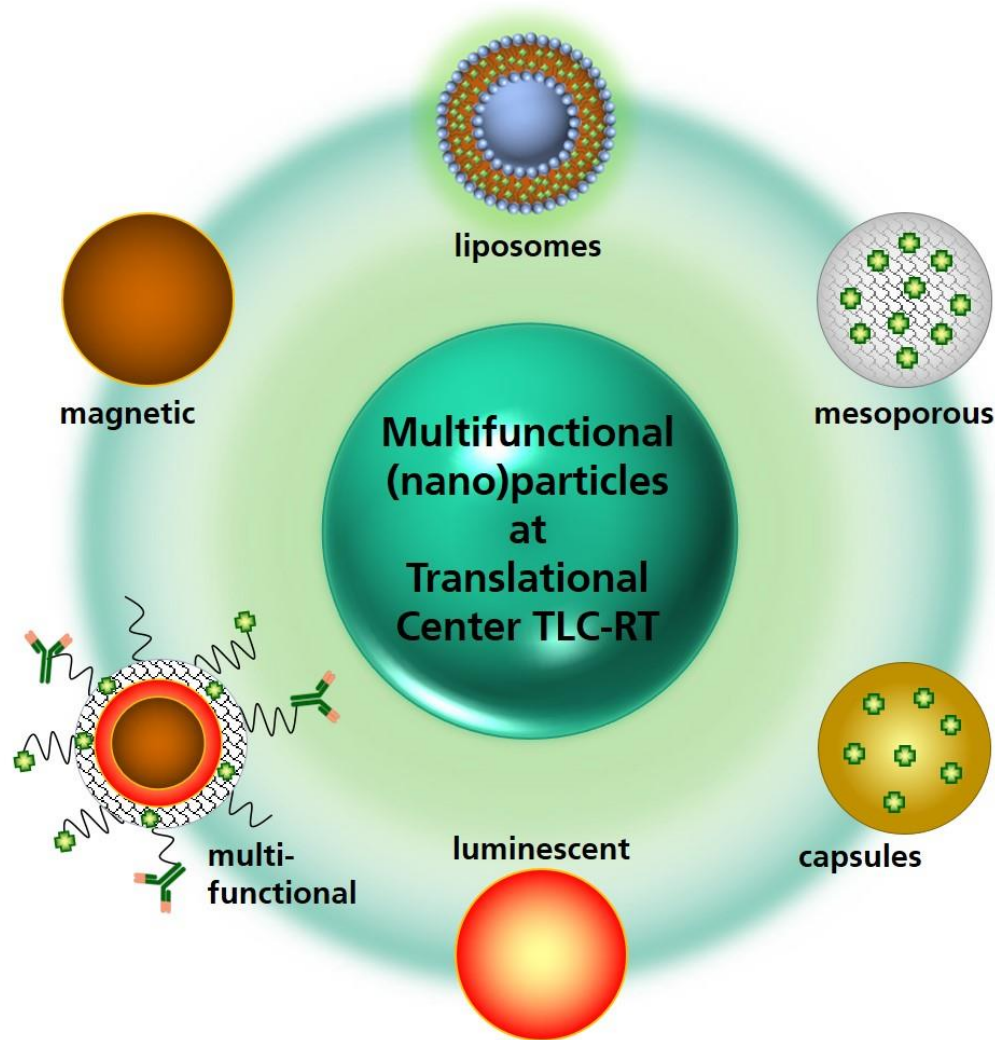
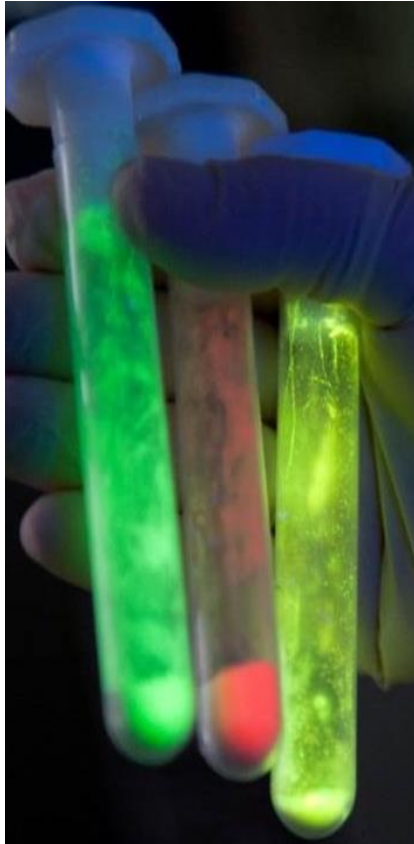


Multifunctional (Nano)particles

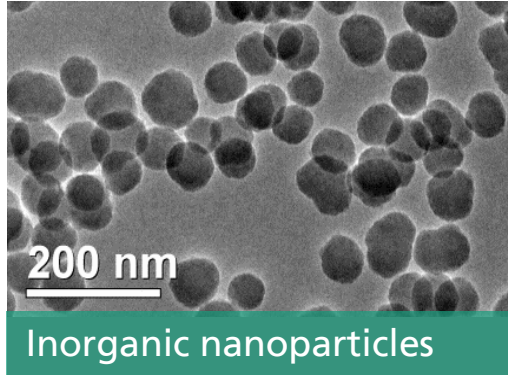


The Fraunhofer Translational Center Regenerative Therapies TLC-RT develops **multifunctional (nano-)particles** for diagnostics and regenerative medicine. With a broad portfolio of materials and synthesis methods there is a **high flexibility in respect of size, material, effective targeting and type of detection methods**. Various particle systems bind biomarkers, encapsulate active substances and are verifiable by different in vitro and in vivo detection techniques like photoluminescence based methods, magnetic resonance imaging (MRI), magnetic particle imaging (MPI), and photoacoustic imaging that **enable the further development of individualized therapy and diagnostics**.

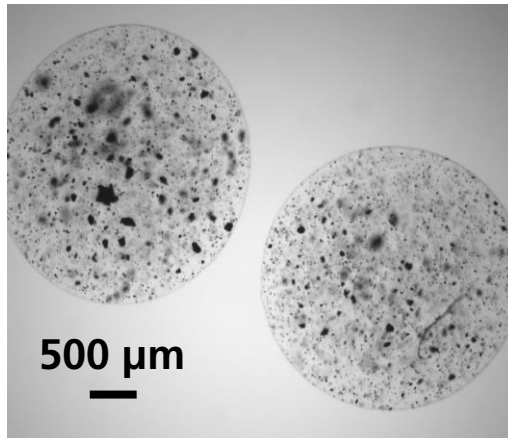
Multifunctional (Nano)particles



Luminescent nanoparticles



Inorganic nanoparticles



Nanoparticle-loaded hydrogel beads

SERVICES

- Commissioned synthesis, surface modification and biofunctionalization
- Automation of particle production processes
- Characterization
- Biofunctionalization
- Biocompatibility and functional testings in human 3D in-vitro models
- Adaption of modular designed systems to your application techniques

APPLICATIONS

- Immunodetection assays
- Contrast agents for in-vivo imaging
- Drug delivery systems
- Therapeutic active systems

Your Contact



**Head of Business Unit
Dr. Sofia Dembski**

sofia.dembski@isc.fraunhofer.de

Phone: +49 931 4100-516



**Head of Business Unit
Dr. Jörn Probst**

joern.probst@isc.fraunhofer.de

Phone: +49 931 4100-300

Fraunhofer Institute for Silicate Research ISC

Business Unit Biomaterials | Translational Center Regenerative Therapies TLC-RT

Neunerplatz 2 | 97082 Würzburg | Germany | www.regenerative-therapien.fraunhofer.de