



BROKERAGE FOR HEALTH

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From drug formulation to pre-clinical characterization:
SINTEFs activities along the whole value chain

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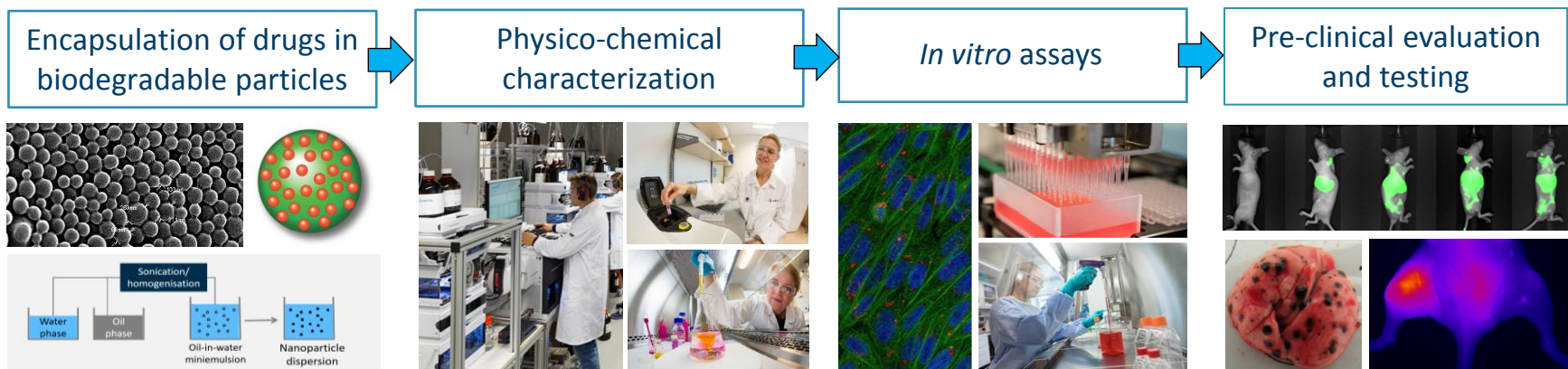


SINTEF

- **Non-commercial** multidisciplinary research organisation
- Main office in Trondheim, Norway
- One of the largest research organisations in Europe
- Strong collaboration with the university sector
- We offer high competence and services along the whole value chain **from drug formulation to preclinical testing**
- SINTEF leads or is partner in 40 **nanomedicine**-related national and international projects

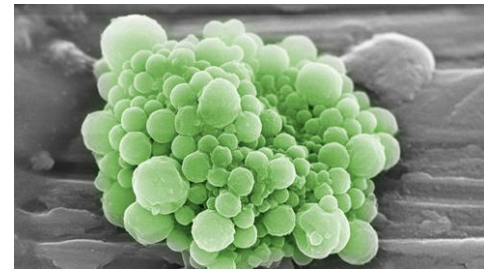
Nanoencapsulation of bioactives for treatment of various diseases

SINTEFs technology platform for encapsulation of drugs



Novel drug delivery systems

- Nanoencapsulation and nanoformulation of drugs in biodegradable and biocompatible materials
- Lipid or polymeric nanoparticles with high drug loading and controllable degradation rates
- Surface functionalization
- Targeted delivery to specific disease sites
- Ultrasound-mediated delivery



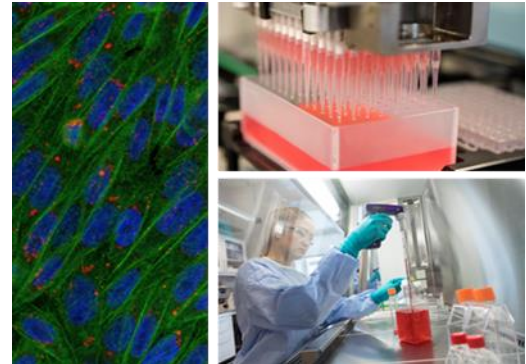
Physico-chemical characterization

- Size, size distribution, concentration and zeta potential using NTA, DLS and FFF
- Drug loading, loading efficiency, drug release by LC-MS/MS
- MW determination by GPC



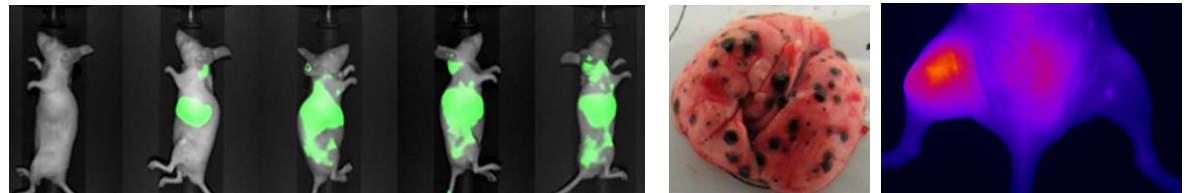
In vitro assays

- High throughput screening for *in vitro* efficacy and toxicity in various cells (e.g. cancer cells, normal cells, bacteria)
- Cellular uptake by flow cytometry and CLSM



Preclinical evaluation and testing

- Biodistribution in mice and rats by whole animal imaging, LC-MS/MS and CLSM
- Enhanced drug delivery with ultrasound
- Efficacy studies in mice in various cancer models





Relevant calls

SINTEF is looking for R&D cooperation:

- Bringing our various delivery systems into the consortium
- Contributing with our characterization methods and expertise

Relevant calls:

- Personalised medicine: SC1-BHC-02-2019: Systems approaches for the **discovery of combinatorial therapies** for complex disorders
- Innovative health and care industry: SC1-BHC-07-2019: **Regenerative medicine**: from new insights to new applications
- Infections diseases and improving global health: SC1-BHC-14-2019: Stratified host-directed approaches to improve prevention, treatment and/or cure of **infectious diseases**
- Infections diseases and improving global health: SC1-BHC-32-2019: Towards a next generation **influenza vaccine** to protect citizens worldwide – an EU-India collaboration



Contact details

Thank you!

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