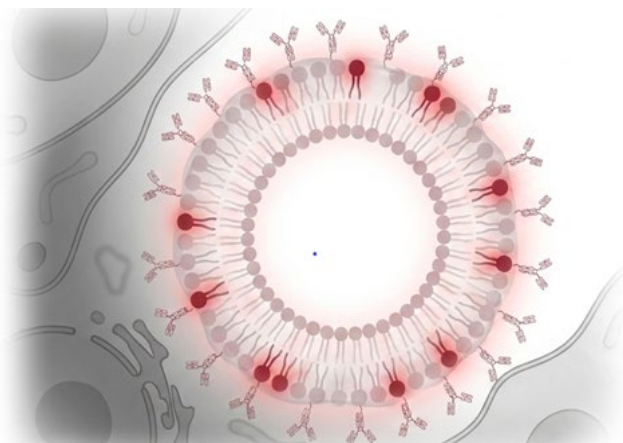


Technology Offer

CSIC/AF/028

Fluorescent nanovesicles as a bioimaging tool



Ultra-bright fluorescent nanoparticles with Near-Infrared emission for non-invasive imaging and diagnostics.

Intellectual Property

Priority patent application filed

Stage of development

Under preclinical development

Intended Collaboration

Licensing and/or co-development

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Market need

NIR fluorescent dyes are powerful tools for fluorescence-guided surgery, sentinel lymph node mapping, tumour detection, vascular imaging and diagnosis. However, current NIR dyes have important limitations, including short circulation half-life, poor photostability, limited brightness and non-specific targeting.

Nanocarriers can help overcome these limitations, but existing fluorescent nanoparticles still face challenges such as poor particle-to-particle homogeneity, limited biocompatibility and insufficient robustness of optical and physicochemical properties during scale-up.

New fluorescent nanoparticles are needed to overcome these challenges.



Proposed solution

New NIR-emitting Quasomes circumvent the above-mentioned challenges, while maintaining the advantages associated with NIR emitting dyes.

The nanoparticles display biocompatibility, high particle-to-particle homogeneity, long-term stability and can be functionalized with targeting compounds.

Competitive advantages

- Significant higher brightness over competitors.
- Tumour specificity.
- Long circulation half life.
- Scalable production under GMPs.
- Room temperature storage.