Production of gallocyanine nanogel as drug delivery system for tauopathies

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Abstract Body

The aim of this study was to develop and characterize nanogels loaded with gallocyanine dye (GC) for controlled delivery. This dye is as an inhibitor of DKK1-LRP5/6 interactions (Remelli , Zheng and Wu). Phenoxazines are compounds, present in several bioactive molecules and natural products that display diverse biological activities. Importantly, phenothiazine compounds have also been reported to able to activate the Wnt signaling pathway as indicated by the increased levels of β-catenin, and decrease the DKK1-induced Tau phosphorylation at serine 396 (Thysiadis et al.)
The controlled delivery of drugs may be accomplished by employing various polymeric drug carriers such as natural polymers. The great advantage using chitosan polymers are the low cost and biocompatibility ability to entrapments of diverse drugs. The development and characterization of GC-nanogel such as size, zeta potential, drug release in different pH's and SEM images were obtained for this preparation.
GC-nanogel may be a promising vehicle for the drug delivery to inhibit DKK1 in neurodegenerative tauopathies. FAPDF,CNPq,CAPES,FINATEC.

1. Image:

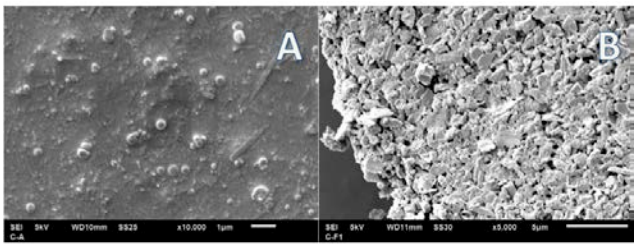


Figure1: SEM A) GC-nanogel; B) GC-nanogel freeze dried.

2. Reference:

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3. Biography:

Claure N.Lunardi has completed her undergraduate in chemistry from Universidade de São Paulo (1996), master's at Chemistry from Universidade de São Paulo (1999) and PHD at Chemistry from Universidade de São Paulo (2004). Has experience in Chemistry, focusing on Photochemistry and Nanotechnology. She has published more than 45 papers in reputed journals.

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