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***In-vitro* characterization of gambogic acid bound nanobioconjugated target oriented drug carrier system for pancreatic cancer**

Sennur Gorgulu Kahyaoglu, Lütfi Genç, Emel Ergene, Arzu Ersöz and Ridvan Say
Anadolu University, Turkey

Pancreatic cancer is one of the worst mortality and malignant types of cancer to treat which has poor diagnose at an early stage, associated with debilitating symptoms and poor prognosis with an aggressive metastasis. Disadvantages of antibody based drug delivery systems are short term and less effective availability because of their brittle structures. Therefore, the development of novel and effective drugs as specific targeted drugs is crucial. Multifunctional magnetic nanoparticles were used for target orientation as a drug carrier. In this study, bioconjugated nanolactoferrin (BCNanoLf) was designed as a new generation polymeric drug carrier system. The bioconjugates were prepared by using ANADOLUCA method that is a cross-linking polymerization technique. Anti-mesothelin antibody and FeCl₃ were oriented and cross-linked, Gambogic acid, the natural compound extracted from gamboges as a potent anticancer agent was conjugated to BCNanoLf. These multifunctional nanostructures can be targeted to pancreatic carcinoma cells. Cytotoxicity analyses were performed by xCELLigence real time cell analyzing system for calculation of IC₅₀ values of the bioconjugates. Then flow cytometry and molecular biological analyses were evaluated for *in-vitro* characterization of the bioconjugates. The obtained results in this study showed that the prepared bioconjugates could be used as a potential theranostic drug.

Biography

Sennur Gorgulu Kahyaoglu has completed her MSc degree from Anadolu University Department of Advanced Technologies-Biotechnology and continued Doctoral studies at the same University Graduate School of Health Sciences, Department of Pharmacology. She is responsible for xCELLigence RTCA MP System, flow cytometer, confocal microscope and cell culture laboratory. She is pursuing her studies on nano-biotechnology for novel drug research and development. She has 3 papers in refereed journals and has attended more than 15 conferences.

sennur@gmail.com

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