

Review of: "[Review Article] Nanocarriers for Protein and Peptide Drug Delivery"

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Potential competing interests: No potential competing interests to declare.

In the article «Nanocarriers for Protein and Peptide Drug Delivery» the authors consider issues related to drug delivery systems based on proteins and peptides molecules. The various forms of the resulting structures, the sources of preparation of such structures, and possible drugs capable of encapsulation are listed.

The aim states that the issues of obtaining nanoscale drug delivery devices should be considered. Unfortunately, there are almost no parts dealing with production methods and conditions. In addition, the article includes chapters on obtaining not only nanoscale but also microscale structures.

Chapter «III) Nanoemulsion» had a few questions. Nanoemulsions are not always formed spontaneously, although a large number of techniques related to self-assembly have been developed. Such delivery systems do not always have a targeted action. This depends not so much on the type of emulsion as on the targeting ligands.

Chapter «b) Protein-based nanoparticles». «These nanoparticles can be formulated using both animal-based and plant-based proteins. Animal proteins come from seafood, egg yolks, milk, and other tissues that animals produce, whereas plant-based ones come from plant sources [19][39].» Regarding plant tissues, one might be able to give examples of tissues, or just the proteins themselves and what kind of products they have.

There were questions with Table 2. The second column is named as "synthetic polymers". In this case, the name "derived from natural sources" would be better, because these are not fully synthetic polymers.

There are typos found in the text that do not significantly affect the meaning of the text. Some of them are:

1. Page 2. (typo) A variety of materials are used to create different nanostructured delivery systems.
2. c) Polymeric Nanoparticles (repetition)

Different techniques are used to prepare natural and synthetic polymers into polymeric nanoparticles.The following table lists some of the frequently used natural and man-made biodegradable polymers. **Different techniques are used to prepare natural and synthetic polymers into polymeric nanoparticles.** The following table lists some of the synthetic biodegradable polymers and natural polymers that are often employed [40].

3. b) Protein-based nanoparticles (typo)

Protein nanoparticles have gained significant attention in research due to their biologically safe properties and ability to be metabolized and biodegraded. Their high affinity for drug encapsulation capacity and solubility characteristics make them particularly **favorable** as nanocarriers [36][37].

More references are usually required for such review articles. It is recommended to increase their number in this case.

Logically structured paper «Nanocarriers for Protein and Peptide Drug Delivery » by Hany Akeel Al-Hussaniy et. al. describes a current scientific questions and therefore can be recommended for publication in journal «Qeios » after quality discussion and several revisions.