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Peptide nanocarriers incorporated with adaptogens

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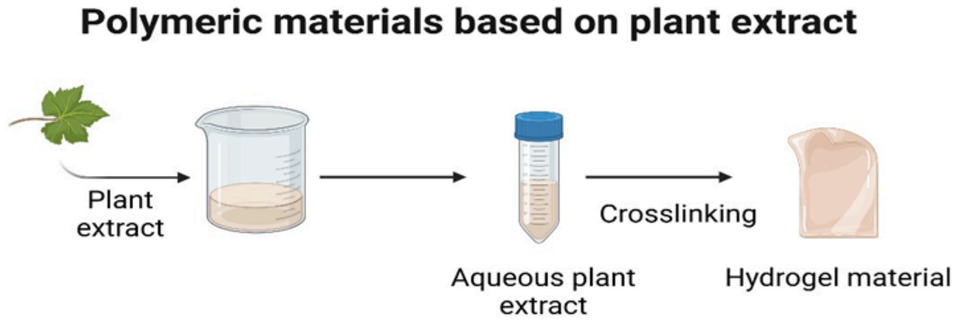
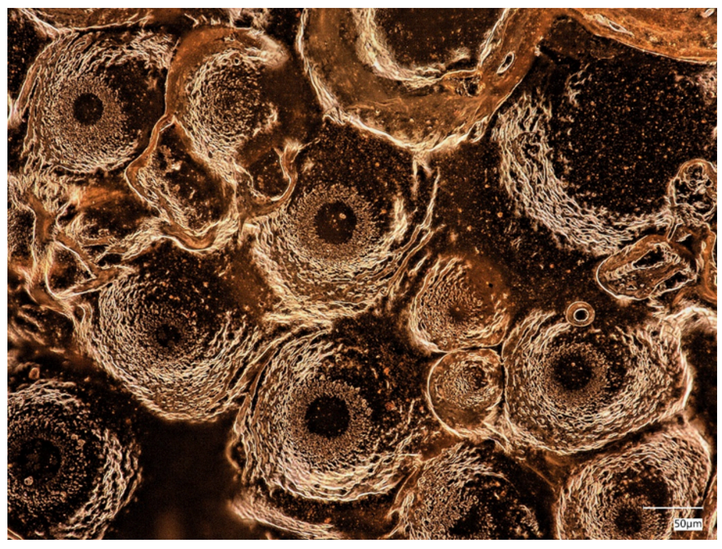
BACKGROUND:

Peptide nanocarriers combined with adaptogens represent an innovative approach in the field of medicine and cosmetology, offering new possibilities in therapy and skin care. Adaptogens, known for their antioxidant properties, stress resistance and homeostasis support, have been incorporated into peptide nanocarriers to increase their stability and effectiveness. Thanks to the carefully designed peptide structure, these nanocarriers enable precise delivery of adaptogens to cells, increasing the bioavailability of active ingredients. The study assessed the physicochemical properties, stability and therapeutic effectiveness of nanocarriers, demonstrating their potential in combating oxidative stress and aging processes.

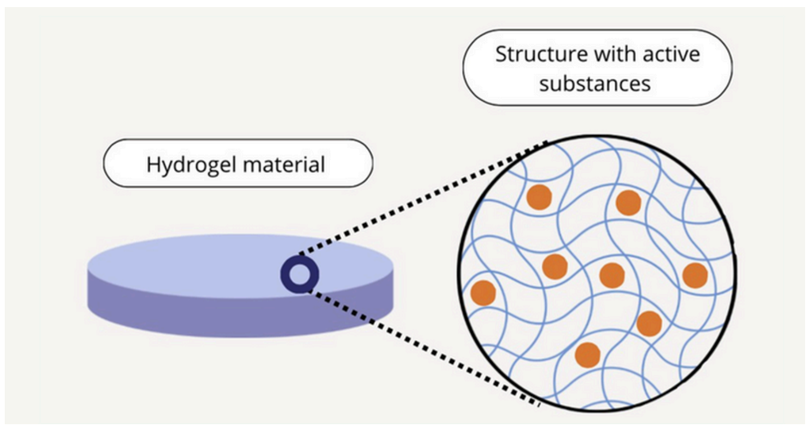
CONCLUSIONS

Peptide nanocarriers are able to deliver adaptogens to cells, characterized by good bioavailability, stability in biological conditions and the ability to control the release of active ingredients, which increases their effectiveness in access, including targeted therapy. Studies have shown that nanocarriers effectively reduce oxidative stress, support cellular homeostasis and prevent skin destruction, which is why they are used in targeted therapy and in severe skin diseases.





Hydrogel material reinforced with adaptogens.



Structure of a hydrogel containing active substances.

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Cracow University of Technology
Faculty of Materials Engineering and Physics

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