PRESS RELEASE



Development of Autophagy Inducing Cyclodextrin Derivatives for Aging-associated Diseases

The aim of this project – financed from the Hungarian National Research, Development and Innovation Office- is the development of cyclodextrin based drug molecules as anti-aging candidates and to induce autophagy to treat aging-associated pathologies.

Cyclodextrin (CD) derivatives are widespread used by the pharmaceutical industry mainly as excipients in final dosage forms. Nowadays, in the case of more and more diseases, it can be observed that at a certain concentration CDs themselves show therapeutic effects. Autophagy (cellular self-digestion) is one of the hot topics for pharmaceutical industry. Our recent results suggest that certain CDs are able to induce autophagic processes that play essential roles in the removal of cellular damage, and thus have anti-aging and neuroprotective effects.

Systematic studies are needed to identify the CD derivatives that are going to be developed for the treatment for aging-related pathologies. Since there is no known autophagy induced drug on the market despite the intensive research and autophagy-associated neurodegenerative diseases (e.g. Alzheimer's, Parkinson's and Huntington's) affect many people, our potential candidates represent a very significant market value.

After successful testing of the developed derivatives, the best candidates are brought to the market. After the project ends, we intend to conduct preclinical and early clinical trials with the help of partners/investors.

These potential compounds can increase healthy life and inhibit neurodegenerative processes, therefore have significant therapeutic, economic and social benefits.

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