

Development of flagellin-based subunit vaccines against coronaviruses

In connection with the fight against the coronavirus epidemic, we want to develop a new type of protein-based vaccine that elicits an innate immune response and an acquired immunity, thus making our body resistant to the attack of the real virus. The idea is to combine two proteins in the vaccine: one is the part of the flagellin protein, the main component of the locomotion organelle of the salmonella bacterium, which has been shown to be a useful carrier or excipient to increase the effectiveness of vaccines. The other component of the fusion protein would be the cell surface-binding portion of the "spike" protein responsible for recognizing the target cell on the surface of selected animal coronaviruses. It is believed that by incorporating the receptor-binding domain of the coronavirus, which directs entry into infected cells, inside the flagellin, there is a promising potential for the production of an effective vaccine.

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Contractors:

University of Pannonia

HQ: 8200 Veszprém, Egyetem u. 10.

Tel: +3688-624-000

E-mail: fpi@uni-pannon.hu

web: <https://fpi.uni-pannon.hu/>

web: <https://eng.uni-pannon.hu/>

Ceva-Phylaxia, Inc.

HQ: 1107 Budapest Szállás utca 5.

Tel: +361-262-9505

Tel: +361-260-3889

E-mail: ceva-phylaxia@ceva.com

web: <https://www.ceva.hu/en>

TargetEx Kft.

HQ: Madách Imre utca 31/2, Dunakeszi, Hungary, H-2120

Tel: +361-279-3153

Fax: +361-279-3154

E-mail: info@targetex.com

web: <http://www.targetex.com/>

Supporter:

National Research, Development and Innovation Office
Hungarian Government

Office: Kéthly Anna tér 1., Budapest, Hungary, H-1077

E-mail: nkfialap@nkfih.gov.hu

Tel: +36 1 795-9500

web: <https://nkfih.gov.hu/english-nkfih>