



April 7, 2020

EPS Holdings, Inc.

EPS Group co-develops COVID-19 vaccine with Osaka University and AnGes Co., Ltd. as a contract research organization

EPS Group entered into a development collaboration of DNA vaccine against COVID-19 with Osaka University and AnGes Corporation. This collaboration is the joint development of preventive DNA vaccines against the novel coronavirus, using plasmid DNA manufacturing technology, that was announced on March 5th, 2020 by Osaka University and AnGes. EPS Group will promote the clinical development of the COVID-19 vaccines as a contract research organization. EPS Group will operate and manage the clinical studies in human after the pre-clinical studies to support the smooth conduct of the clinical development.

Overview of the development of preventive DNA vaccines against the novel coronavirus, using plasmid DNA manufacturing technology —Reference information from the news release published by AnGes on March 5th and March 13th—

(AnGes's website <https://www.anges.co.jp/>)

- Joint development of DNA vaccine against novel coronavirus between AnGes and Osaka University (Department of Clinical Gene Therapy; Department of Health Development and Medicine) based on the previous achievement of plasmid DNA product.
- The manufacturing process can be established in a shorter period of time with the manufacture of DNA vaccines, compared with the vaccine with using inactivated viruses (attenuated vaccines) or the vaccine with using genetically modified virus protein.
- The manufacturing operations will be undertaken by Takara Bio Inc. that possesses manufacturing technology and facilities of plasmid DNA.
- Daicel is developing an intradermal gene transfer method, using this new administration device, and promote research with Osaka University (Impulse Science for Medicine; Department of Health Development and Medicine), aiming at its clinical application.
- Use of this new administration device is expected to increase the efficiency of intradermal genetic expression and antibody production capability, enabling the development of more efficient DNA vaccines.



[About DNA vaccine]

DNA vaccines are safe and can be produced in a short time period without using any dangerous pathogens. By inoculating a circular DNA (plasmid) encoding the protein of the target pathogen, the pathogen protein is produced in the body and immunized against the pathogen. Unlike attenuated vaccines, DNA vaccines are safe as they have no pathogenicity.

[About EPS Group]

Since its establishment in 1991 as one of the pioneering CROs covering Asia, EPS Group has been a healthcare solution provider to pharmaceutical companies, medical device manufacturers, hospitals, clinics, and academia with various solutions from clinical development to marketing, sales, consultation and new values created in big data & AI, regenerative medicine, etc.

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