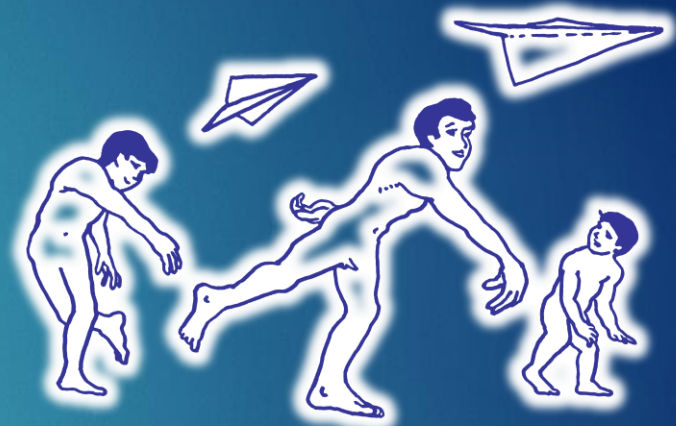


Jectas Innovators Co., Ltd.

VACCINES, ADJUVANTS, MONOCLONAL ANTIBODIES,
PROTEIN ENGINEERING, MOLECULAR DESIGN



“ **Jectas Innovators** is your partner of choice for development of innovative vaccines and to open up its future. ”



Our Strengths



Strengths in early-stage vaccine development

- ▶ Jectas Innovators focuses on research and development of veterinary vaccines against infectious diseases.
- ▶ Our strengths are in bioengineering techniques for protein design and recombinant protein expression as well as in biochemical and immunological analyses of proteins. Those techniques are particularly important during the early stages of vaccine development. Since our establishment, we have been working intimately with pharmaceutical companies to achieve our goals. Our unique and proprietary protein design technologies have allowed us to develop vaccines against livestock diseases such as porcine edema disease and chicken egg drop syndrome



Devoted to subunit vaccine development

- ▶ Most prophylactic vaccines against veterinary infectious diseases are composed of live-attenuated or killed pathogens or purified toxoids.
- ▶ We focus instead on protein antigens of pathogen origin that are critical for their survival and multiplication in the body. Through appropriate selection of pathogen-derived antigens, application of our unique protein design and modification technologies, and exploitation of various recombinant protein expression systems (e.g., *Escherichia coli*, yeast and silkworm), we create subunit vaccine molecules that are safer and more effective than ever before.



Research and Development



Infectious disease vaccine projects

- ▶ Our company's most important mission is to develop recombinant protein-based veterinary vaccines against infectious diseases of pigs, chickens and other domestic animals. Unlike conventional live-attenuated or killed vaccines, we genetically engineer recombinant protein vaccines using our original and unique protein design technologies.
- ▶ Examples include a vaccine for preventing porcine edema disease (US 9,701,724 B2) and a prophylactic vaccine against egg drop syndrome (WO2015163037).



Adjuvant projects

- ▶ Adjuvants are immune potentiators, and are essential components of recombinant protein vaccines used to augment their immunogenicities. However, adjuvants approved for clinical use are very limited.
- ▶ We are searching for new compounds with the potential to be developed as vaccine adjuvants from large repertoires of bioresources derived from plants, animals and microorganisms both on land and in the sea. We also evaluate the adjuvant effects of various known chemical compounds.



Therapeutic antibody projects

- ▶ Several of our projects focus on the development of therapeutic monoclonal antibodies. Since monoclonal antibodies specifically recognize and bind to a single unique epitope of pathogen- or toxin-derived antigen, they are generally considered safer than antisera derived from animals such as horses, which contain a mixture of various types of antibodies (i.e., polyclonal antibodies). Thus, monoclonal antibodies are highly useful for therapies against many kinds of diseases.
- ▶ We are particularly interested in development of toxin-neutralizing monoclonal antibodies against bacterial protein toxins and snake venoms.



Diagnostic tool projects

- ▶ In these projects we develop diagnostic tools based on immunological techniques such as immunochromatography (ICT) or enzyme-linked immunosorbent assay (ELISA). We are particularly interested in development of ICT test kits for infectious diseases of domestic animals, including companion animals like dogs and cats. These test kits are designed to achieve rapid and convenient diagnosis, and thus are useful in small veterinary hospitals and even in the field.
- ▶ We also develop ICT kits for detecting snake venoms, which could provide useful information in treating patients bitten by unidentified snakes.



Contact us

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