

The Application of Minipigs for Preclinical Development

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QPS' globally recognized toxicology scientists offer a wide range of toxicity studies, as well as other preclinical safety tests, that are essential for preclinical drug development programs. We have a long and successful track record of designing specialized *in vivo* studies. Quality and flexibility are the key factors as we work together to ensure that all regulatory studies for your investigational new drug (IND) filing are not overlooked. We will design and execute the most cost-effective development strategies for your drug candidates. Our commitment is to provide you with a fast and reliable route to clinical phase 1-2 studies.

Since early 2019, and as a next step in the development of our service offerings at QPS Taiwan CTPS, we have begun to offer studies utilizing mini pigs. Mini pig is an animal model that is widely used for preclinical research across Asia, the United States, and Europe due to anatomical, biochemical, and physiological similarities to humans. With a can-do attitude and an affinity to embrace change, QPS Taiwan Center of Toxicology and Preclinical Services (CTPS) notices the trends in the marketplace and sets up the milestone for others. To date, we are proud to have successfully completed several studies in mini pigs, including a good laboratory practice (GLP) repeated study.

At QPS Taiwan we view the opportunity to change, develop, and adopt new methods and systems as investments in ourselves that make us better partners and increase the value of the service that we provide to our sponsors, from small biotechs to large pharmaceutical companies.

In vivo animal models are the most efficient and clinically relevant approach for studying wound healing. Our veterinarians are capable of performing surgeries for testing of wound healing, with post-operation monitoring of clinical observations, body weight, and food consumption. Wounds are regularly measured for assessment of the extent of healing. At the completion of the in-life experimentation, our board-certified pathologist (DACVP) performs histopathology examination of the wound tissues. All studies are reviewed by IACUC in compliance of animal welfare requirements.

The atopic dermatitis model in mini pigs is currently under establishing, the clinical

endpoints and scoring system includes: SCORAD index (scoring atopic dermatitis, blood samplings for circulating cytokines ELISA test, skin biomarkers via histology HE Stain/IHC stain, statistical analysis of efficacy data, clinical scoring, and histomorphometry for quantitatively evaluation.

Key words: Lanyu-400 mini pig, preclinical, wounds healing, atopic dermatitis, Taiwan