原　著

トランスレーショナルリサーチの要諦

Part 1：トランスレーショナルリサーチ〜動物から人へ〜 モデル動物のCapability

Part 2：動物自然発生疾患モデルとヒトの疾患 ― 糖尿病モデル動物を例として ―

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The key to success in translational research and critical path research

Part 1: Capability of model animal in translational research

Part 2: Mechanistic equality in animal disease models and human disease

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Abstract

Clinical science is based on data which is drawn from patients, so the characteristics of the data are uncertain and changeable over time. Because of that, medical approaches can only be done based on probability theory. Therefore, in order to adapt animal data to human disease, accurate understanding of the mechanisms of human diseases and selection of appropriate animal models is essential. In this paper, we will outline conditions which are necessary to improve the translational success rate in Part 1. In Part 2, we describe a concrete method which allows appropriate model selection to enable translation to human disease, a diabetic animal model for example.

Establishment of a new technique that can be classified as complex clinical conditions in detail becomes a new standard for animal model selection. This is the key for successful translational research. Once it is actualized, then we can finally truly discuss about the capability of an animal model. We are expecting that this paper will be of help for success in translational research.