

Translational animal models of disease in drug discovery and development

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Animal models of diseases play a pivotal role in drug discovery and development, ranging from proof of concept studies such as target validation, efficacy, pharmacokinetic and pharmacodynamic correlation as well as drug safety and tolerability assessment. Since considerable variables and differences exist between animal models and humans, none of the animal models fully and authentically represents the human biology and disease pathology. Partly due to the same reasons, enormous therapeutic agents demonstrated to be effective in preclinical models have failed in clinical studies in regards to efficacy, safety and tolerability. This presentation is aimed to address translational gap that emanates from lack of congruency between preclinical models and humans, via systematic analyses and 'case studies' exemplifying animal models of disease from translational medicine perspectives. The generic nature of "translational model" principles and their impacts on pathological research and successful drug development are highlighted and discussed.

Biography

Xinkang Wang, Ph.D., FAHA, is Director Translational Science, Agennix USA, responsible for mechanism of action studies for an immunotherapeutic protein agent, talactoferrin, for the treatment of patients with non-small cell lung cancer. Dr. Wang completed his Ph.D. from the University of Pennsylvania, and has been engaged in drug discovery and development research for 18 years. Dr. Wang's research has involved in various translational models of diseases for drug discovery and development, including target validation, efficacy, drug safety and translational biomarker discovery. Dr. Wang has published more than 130 peer-reviewed scientific publications and reviews.

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