Disease Model Research—Creative Biolabs Advances Fibrosis and Organ Injury Studies

Creative Biolabs ramps up its investment in disease model development, establishing a portfolio of research platforms that span multiple organ systems.

Creative Biolabs

SHIRLEY, NY, UNITED STATES, August 27, 2025 /EINPresswire.com/ -- The increasing prevalence of chronic kidney disease, pulmonary fibrosis, and liver disorders is straining public health systems, as well as the health and drug development industries globally. Against this backdrop, animal models remain a vital bridge between fundamental science and clinical practice—where scientific rigor and reproducibility are more important than ever. Creative Biolabs' sustained efforts in model development are enabling researchers to tackle these challenges head-on.

Kidney Injury Models That Capture Complexity

The adriamycin-induced nephropathy model has long been recognized as a robust tool for studying chronic proteinuria and glomerulosclerosis. With the help of public databases and in-house experience, Creative Biolabs has adjusted the chronic kidney injury studies to replicate the disease progression by refining the observation timelines, dosage, and administration routes. Beyond evaluating the renal protective effects of drug candidates, this platform provides valuable insights into the interplay of immunity, inflammation, and fibrosis.

Creative Biolabs delivers a broad range of evaluation endpoints, including:

* Body and kidney weight
* Proteinuria and creatinine levels
* Immunohistochemistry
* Biomarker analysis
* Confocal microscopy assessment

A Classic Tool for Pulmonary Fibrosis Research

Bleomycin is still the benchmark for constructing pulmonary fibrosis models in respiratory research. Creative Biolabs' bleomycin model of pulmonary fibrosis captures the dynamic trajectory from acute inflammation to chronic fibrosis, closely mirroring the pathology observed in patients. By offering multiple administration options—such as intratracheal instillation or systemic injection—the model allows researchers to tailor experimental design to their study goals and test the efficacy of antifibrotic candidates.

Evaluation services include:
* Bronchoalveolar lavage analysis
* Morphological assessment
* Pulmonary function testing
* Histopathological analysis
* Collagen quantification

From Acute Injury to Chronic Liver Fibrosis
The liver is the most susceptible to various types of injuries, given that it serves as the main organ for metabolism and detoxification. Through the free radical-generating capability of CCl_4, Creative Biolabs has developed a CCl_4-induced liver fibrosis model in mice. This model reproduces the entire range of pathologic changes, including acute cell necrosis and chronic fibrosis. The platform provides a remarkable tool to study the hepatoprotective mechanisms and drug candidate toxicity through the fibrosis model's histological, biochemical and molecular diagnosis.

"The real value of a disease model goes far beyond 'mimicking disease'—it lies in accelerating the drug development journey," said a Creative Biolabs scientist in a recent interview. "By tailoring our modeling strategies, we aim to ensure that research outcomes are both scientifically sound and highly relevant to clinical translation."

For more information on disease model solutions, please visit https://www.creative-biolabs.com/drug-discovery/therapeutics/.

About Creative Biolabs
Creative Biolabs is developing systematic and standardized disease model services from kidney, lung, and liver that give researchers and pharmaceutical firms around the world a strong base.

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