

# New Comprehensive Rodent Models Developed by Creative Biolabs Aim to Improve Disease Research

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SHIRLEY, NY, UNITED STATES, May 24, 2025 /EINPresswire.com/ -- Creative Biolabs has recently expanded its research in [non-transgenic rodent models](#) to meet the growing diversity of non-clinical study needs.

Non-transgenic rodent models, which represent a closer approximation to natural living states, allow researchers to flexibly design experiments and shorten the time taken to model persistent pathological challenges.

Therefore, these models are emerging as valuable adjuncts to traditional transgenic models. Creative Biolabs

builds upon its existing platform by formulating comprehensive systems of rodent-based modeling approaches aimed at reproducing pathological processes and studying mechanisms of interventions.

A senior scientist at Creative Biolabs who spoke on the condition of anonymity said that non-transgenic models, in comparison to transgenic ones, provide clinically relevant simulations of natural disease onset and progression. "We are able to develop myriad experimental strategies thanks to our years of experience in animal research coupled with an expertise in disease mechanisms," he adds.

In the ophthalmology field, recent developments integrate multiple [corneal neovascularization modeling](#) techniques such as corneal micropocket, suture-induced, and alkali burn models.



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These enable the study of abnormal vascular growth and associated pathways. For inflammatory eye diseases, models such as LPS-induced uveitis, dry eye, and allergic conjunctivitis have been established, alongside models for corneal wound healing and infectious keratitis, providing platforms to evaluate the effects of local therapeutics.

In metabolic disease research, the upgraded streptozotocin (STZ)-induced diabetes model offers enhanced experimental flexibility. Researchers can adjust induction dosage and timing to simulate type 1 or type 2 diabetes, complemented by comprehensive assessments including blood glucose monitoring, insulin level measurements, histopathological analysis, and biomarker profiling. "The unique cytotoxic mechanism and clinical relevance of STZ make it a preferred model for studying ROS-mediated  $\beta$ -cell death," the scientist added.

In the field of tumor immunology, Creative Biolabs has extended its humanized mouse platform to include [CDX \(cell line-derived xenograft\) models](#). In mice with a reconstructed human immune system, researchers can subcutaneously, orthotopically, or intravenously implant human tumor cells. This simulates tumor growth in different microenvironments, enabling the exploration of immune evasion, antigen recognition, and mechanisms of immunotherapy effectors.

This part of the expansion also addresses modularity and controllability of experimental workflows. Creative Biolabs assists researchers by providing freedom over the animal species and modeling approaches, observation periods, and endpoint evaluations, including histological examination, biochemical assays, and imaging analysis, thereby aiding the achievement of specific research objectives.

For more information or to request technical documentation, please visit <https://www.creative-biolabs.com/drug-discovery/therapeutics/>.

#### About

Creative Biolabs will keep expanding the already existing model library, emphasizing rare diseases, neurodegenerative diseases, and microbiome studies while continuing to provide potent, versatile platforms for global drug development.

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