inotiv
analyze. answer. advance.

Genetically Engineered Models (GEMS)

An unparalleled selection of translational and physiologically relevant animal models

Inotiv is your source for unique, next-generation animal research models for discovery and preclinical research applications. Powered by legacy models developed at SAGE Labs, Inc., our portfolio now contains over 80 genetically engineered rodent models that feature specific gene deletions, insertions and modifications, and cover various therapeutic areas, such as neuroscience, ADMET and oncology.

For more information on our predeveloped transgenic models, please visit inotiv.com or contact us at GEMSorders@inotiv.com.

NEUROSCIENCE

Alzheimer's Disease	Autism	Pain	Hereditary Neuropathy	Parkinson's Disease*	Schizophrenia	Cre Models
ApoE KO rat	CHD8 KO rat	Faah KO rat	SORD KO rat	Lrrk1 KO rat	BDNF KO rat	5Ht3a-Cre KI rat
hApoE2 KI rat	Cntnap2 KO rat	Oprm1 KO rat		Lrrk2 KO rat	Cacna1c KO rat	CamKIIa-Cre KI rat
hApoE3 KI rat	Fmr1 KO rat	$p75^{NTR}$ KO rat		Lrrk1-Lrrk2 KO rat	Chrna7 KO rat	DAT-Cre KI rat
hApoE4 KI rat	Gabrb3 KO rat	Trpv1 KO rat		Park2 (Parkin) KO rat	Disc1 KO rat	Parvalbumin-Cre KI rat
App KO rat	MeCP2 KO rat			Park7 (DJ-1) KO rat	Pde4b KO rat	Sst-Cre KI rat
BDNF KO rat	Met KO rat			Pink1 (Park6) KO rat		tdTomato KI rat
	mGluR5 KO rat			Pink1/Parkin KO rat		TH-Cre KI rat
	Nrxn1 KO rat					Tph2-Cre KI rat
	Nlgn3 KO rat					Vgat-Cre KI rat
	Rbfox1 KO rat					VIP-Cre KI rat

ADMET

Transporters	Xenobiotic
Bcrp KO rat	AHR KO rat
BSEP KO rat	CAR KO rat
Mdr1a KO rat	Ppara KO rat
Mdr1a-1b KO rat	PXR KO rat
Mdr1a-Bcrp KO rat	PXR/CAR KO rat
Mrp1 KO rat	PXR/CAR/AHR KO rat
Mrp2 KO rat	
Oat1 KO rat	
Oat3 KO rat	
Oct1 KO rat	
Oct2 KO rat	

ONCOLOGY

Cell Proliferation	DNA Repair	Immunotherapy
p53 KO rat	Prkdc KO rat	B-NDG KO mouse
Pten KO rat		
Rag2-Il2rg (R2G2®) KO mouse		

IMMUNOLOGY

Inflammation	
Cox1 KO rat	Rag1 KO rat (Sprague Dawley)
Cox2 KO rat	Rag2 KO rat (Fischer 344)
Lgals1 (Gal1) KO rat	Rag2 KO rat (Sprague Dawley)
Prkdc KO rat	Rag2-Il2rg (R2G2®) KO mouse
Rag1 KO rat (Fischer 344)	Tbx21 (T-beta) KO rat

RESPIRATORY

Cystic Fibrosis
CFTR KO rat

INFECTIOUS DISEASE

COVID-19
hACE2 KI rat
hACE2 KI mouse
hTmprss2 KI mouse
hACE2/hTmprss2 KI mouse

CARDIOVASCULAR

Atherosclerosis
ApoE KO rat
hApoE2 KI rat
hApoE3 KI rat
hApoE4 KI rat
Ldlr KO rat
Leptin KO rat

*Our suite of Parkinson's disease research models have been developed in partnership with the Michael J. Fox Foundation. To help drive Parkinson's disease research, our α-Synuclein A53T KI, α-Synuclein KO, and Pink1/Parkin KO rat models do not require a breeding license or MTA for purchase.

Keep your research on track

Utilize our comprehensive portfolio of tailor-made support services to keep your research moving forward.

Contract breeding cohort supply

Ensure planned, regular supply batches of models bred, pre-conditioned and delivered to your facilities. Add-on from our integrated service spectrum to improve welfare and research efficiency.

Health status verification

Verify and maintain the health of your colonies with our in-house full spectrum health monitoring program. All of our standard and contract bred models are guaranteed to be specific pathogen free.

Cryopreservation

Reduce the risk of losing a valuable cohort through genetic or pathogen contamination or catastrophe, and eliminate needless breeding through cryopreservation.

Rederivation and revitalization

Bring cohorts back to their ideal state in the shortest time possible or completely refresh colonies from cryopreseved material.

Quarantine

Prevent the risk of introducing pathogens to your facility by utilizing Inotiv's isolators to quarantine, test, revitalize or rederive the models you need from other facilities with an unknown health status.

Surgical Services

Access to highly skilled surgical teams combined with expert solutions and a first-in-class surgical model tracking system.

Preconditioned models and services

Leverage Inotiv's Veterinary Science, Research and Support team to produce and deliver research-ready models including aged animals, special matings, and models maintained on custom diets.

THE MICHAEL J. FOX FOUNDATION
FOR PARKINSON'S RESEARCH