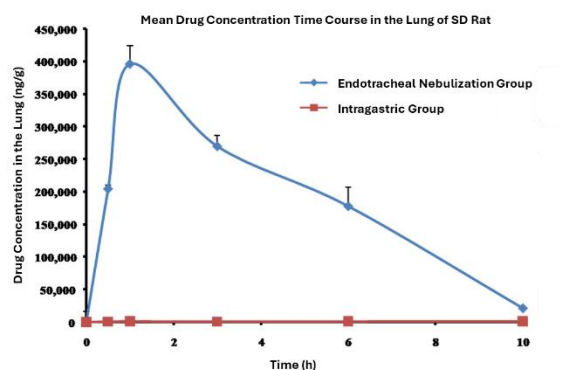


Therapeutic Areas: Respiratory Disease Models

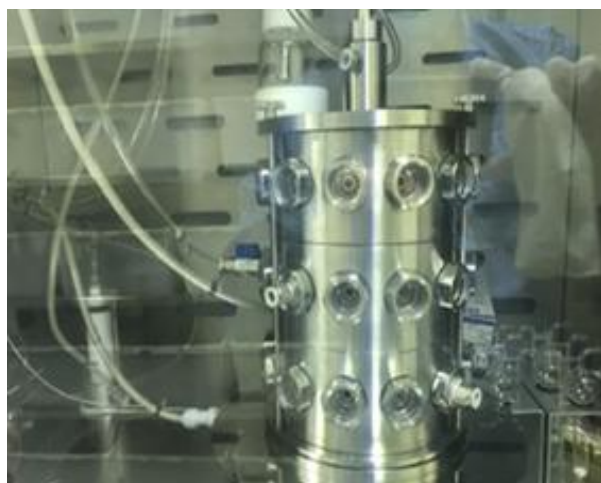
Our inhalation research platform enables dynamic aerosol delivery via endotracheal, oral, or nasal routes in both small and large animal models. It supports pharmacodynamic, pharmacogenetic, and toxicology studies for respiratory drugs targeting diseases such as asthma, COPD, and pulmonary fibrosis.



Endotracheal nebulization is a form of administration in which the drug is nebulized directly into the animal's trachea in a precise and quantitative manner and is commonly used in early preclinical studies to investigate the pharmacokinetic profile of inhaled drugs.

Disease Type	Animal Model / Study
Expectorant	Tracheal phenol red excretion model
	Tracheal ciliary movement model
Cough Relieving	Model of ammonia inhalation-induced cough
	Model of citrate inhalation-induced cough
	Model of electrical stimulation-induced cough
Asthma Relieving	Model of high-fat diet plus OVA-induced obese asthma

	Model of house dust mite-induced asthma
	Model of OVA-induced allergic asthma
	Model of histamine phosphate inhalation-induced asthma
Pharyngitis	Model of beta hemolytic streptococcus infection-induced acute pharyngitis
	Model of pharyngeal spray with ammonia-induced acute pharyngitis
Extracorporeal Trachea, Bronchus and Lung Tests	Model of acetylcholine / histamine-induced isolated tracheal smooth muscle contraction
	Lung bronchial perfusion test
Chronic Pulmonary Disease	Model of cold plus SO ₂ -induced chronic obstructive pulmonary disease (COPD)
	Model of smoking plus LPS-induced chronic obstructive pulmonary disease (COPD)
	Model of bleomycin-induced pulmonary fibrosis



Oral and nasal exposure dynamic inhalation

The oral and nasal exposure device consists of animal exposure system, aerosol generator, system airflow air pressure control and regulation system, online monitoring, and room time display. The oral and nasal exposure inhalation platform we established can carry out pharmacodynamic, pharmacogenetic and toxicological studies on large and small animals.



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