

Hematology Services in Biologics and Preclinical Research

Preclinics provides comprehensive *in vivo* and *in vitro* hematology services to support your preclinical research. We enable high-quality characterization of bleeding disorders, treatment efficacy, and pharmacokinetics through standardized workflows and advanced monitoring systems. By combining specialized mouse models with expert validated assays, we support reliable, data-driven evaluation of your therapeutic candidates.

Our assays and methods are rigorously validated and conducted under the highest animal welfare standards, tailored to your specific study requirements.

Specialized *in vivo* Portfolio

Research Area	Specialized Analysis	Applications
Bleeding & Hemostasis	• Nail-clip, Tail-clip, and Saphenous vein bleeding assays • Hemarthrosis quantification	Assessment of hemostatic recovery across multiple coagulation-deficient models (e.g., FVIII-KO, FIX-KO mouse strains)
Health Monitoring and Physiological Phenotyping	• Longitudinal tracking of running behavior via the Revolyzer system • Clinical observation of bleeds and muscle swelling • Regular health checks including body weight monitoring, genetic phenotyping and blood analysis	Therapy monitoring, time-course studies, and intervention studies
Pharmacokinetics (PK)	• Standard and advanced administration (including catheterization) • Sampling of plasma, serum, whole blood, and organs	Phenotype characterization and metabolic studies

Core Analytical Portfolio

Analysis Type	Description & Purpose	Target Parameters
Antigen Quantification	ELISA-based assays to quantify protein levels in plasma of treated deficient mice	FVIII and FIX Antigens
Complete Blood Count	High-precision automated hematology using the Exigo H400. Validated for murine and multi-species samples	RBC, WBC (4-part Diff), PLT, HGB, & HCT
Activity Assays	Chromogenic assays established for human and mouse plasma to measure functional factor activity	FVIII, FIX, and VWF activity
Coagulation Kinetics	Chromogenic assessment of the plasma's ability to generate thrombin, a key enzyme in the cascade	Thrombin Generation Assay (TGA)
Immune Profiling	Flow cytometry using precision gating to quantify absolute counts and frequency percentages in whole blood, spleen, or bone marrow samples	T, B, & NK Cell Populations
Blood Loss Quantification	Semi-quantitative assays to measure total blood lost during in vivo bleeding challenges	Hemoglobin concentration
Cytokine Profiling	Multiplex assays (flow cytometry, MSD)	Cytokines of interest

Get in Touch

We are always keen to establish new methods and collaborate intensively with our customers. We are open for visits and willing to travel to other laboratories for on-site training.

Ready to discuss your next study? Contact our expert team for a customized research plan.