

# A NEW ERA

for the modeling of blood and autoimmune diseases and drug development

Advanced Hematopoietic PBMC Chimera – ApbHC

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**G**IMMUGENYX

Leukemia

Myeloma

Lymphoma

# Immugenyx

A new era for the modelling of blood / autoimmune diseases  
and drug development

Immugenyx has developed a novel  
type of humanized mice that  
possess a functional human  
immune system:  
Advanced Hematopoietic peripheral  
blood  
Chimeras ('ApbHC')

## What are ApbHC?

- Mice with high levels of human hematopoietic chimerism made via transplantation of proprietary processed human peripheral blood mononuclear cells
- Possess a variety of T Cells in the peripheral blood and a variety of human immune cells in the spleen and bone marrow.
- Chimeric animals generate human IgM and IgG and immunogen-specific human IgM and IgG easily detectable in peripheral blood.
- Chimeric animals continue generating antibodies that were developed by a human donor of blood that was used to make the ApbHC.
- Fast and inexpensive to make

## Validated:

- Collaboration with a major biopharmaceutical company on the development of AHC as a tool for assessment of immunogenicity of biologics
- Collaboration with J&J (Janssen) to develop an *in vivo* tool for modeling and development of treatments of Lupus (LSE)
- Used to test efficacy of CDX antibody
- AML engraftment into AHC is demonstrated and used to test CDX bispecific antibody

## Possible applications:

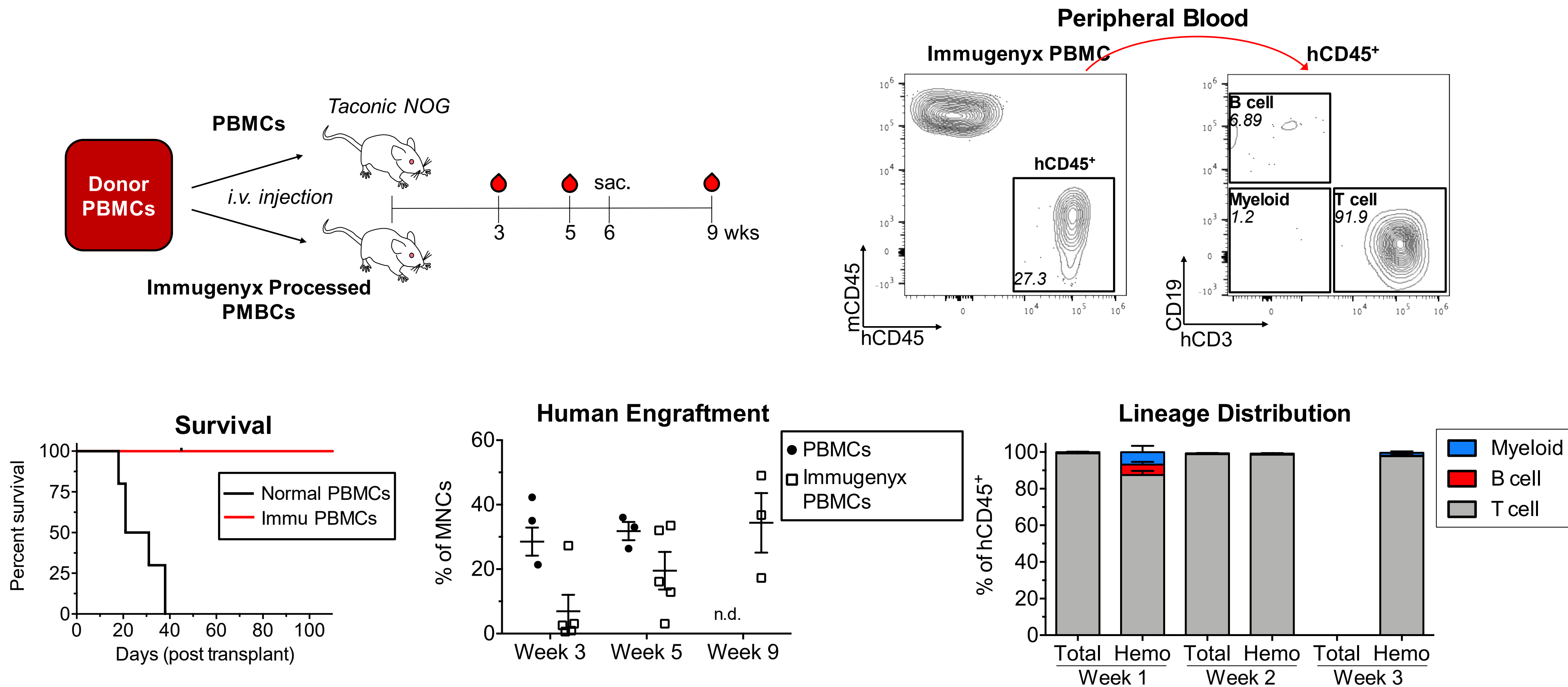
- Assessment of immunogenicity of biologics
- An *in vivo* tool for the modelling and development of treatments of autoimmune diseases
- A tool for the rapid generation of human antibodies in response to human-specific pathogens (Biodefense)
- A tool for modelling blood diseases such as AML and testing novel treatments that involve reprogramming of the immune system (multi-specific antibodies for immune cell redirection, CAR-T etc.)
- An *in vivo* tool to study the physiology of human plasma cells and plasma cell-associated diseases such as multiple myeloma

# ApbHC

**Advanced peripheral blood  
Hematopoietic Chimera**

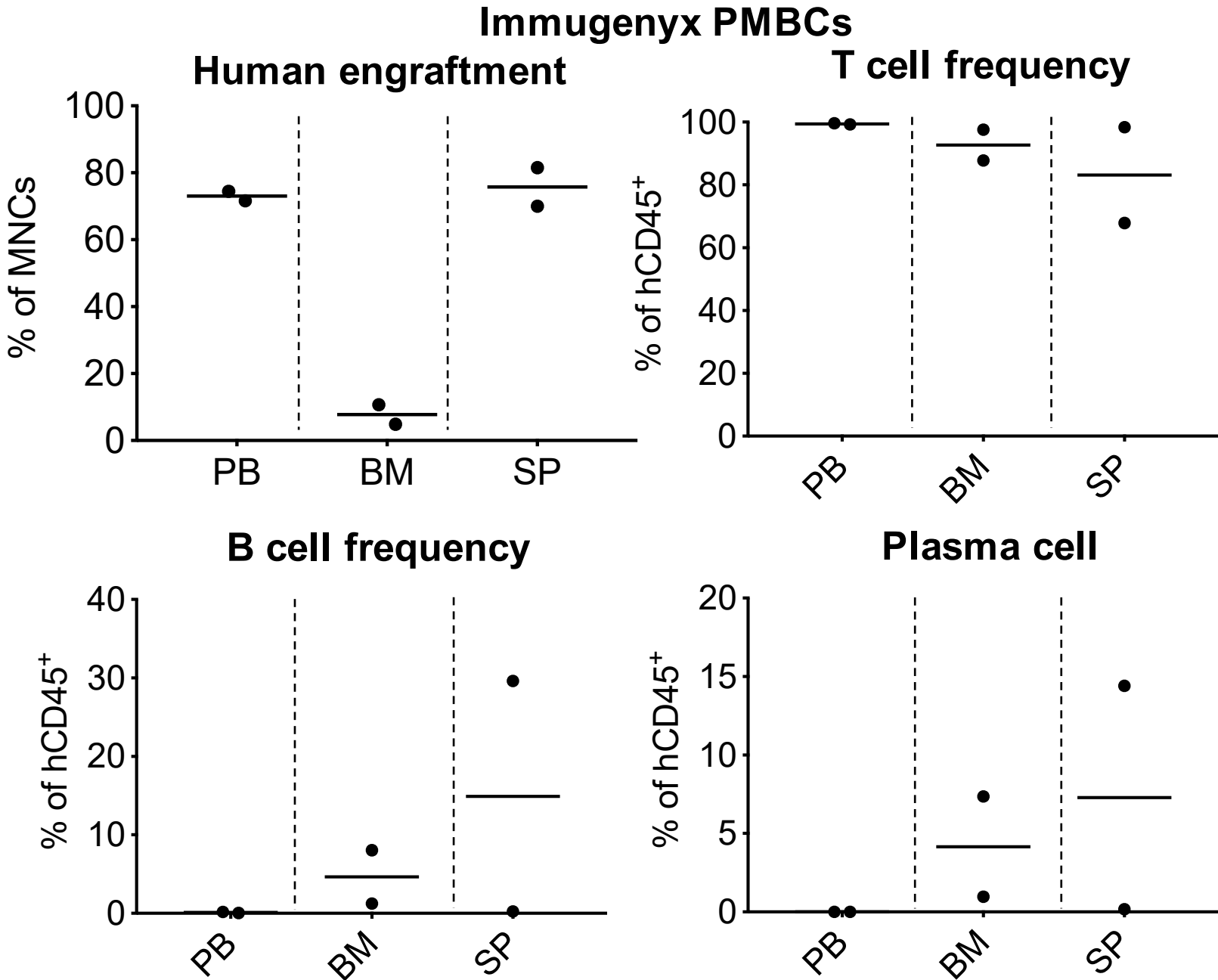
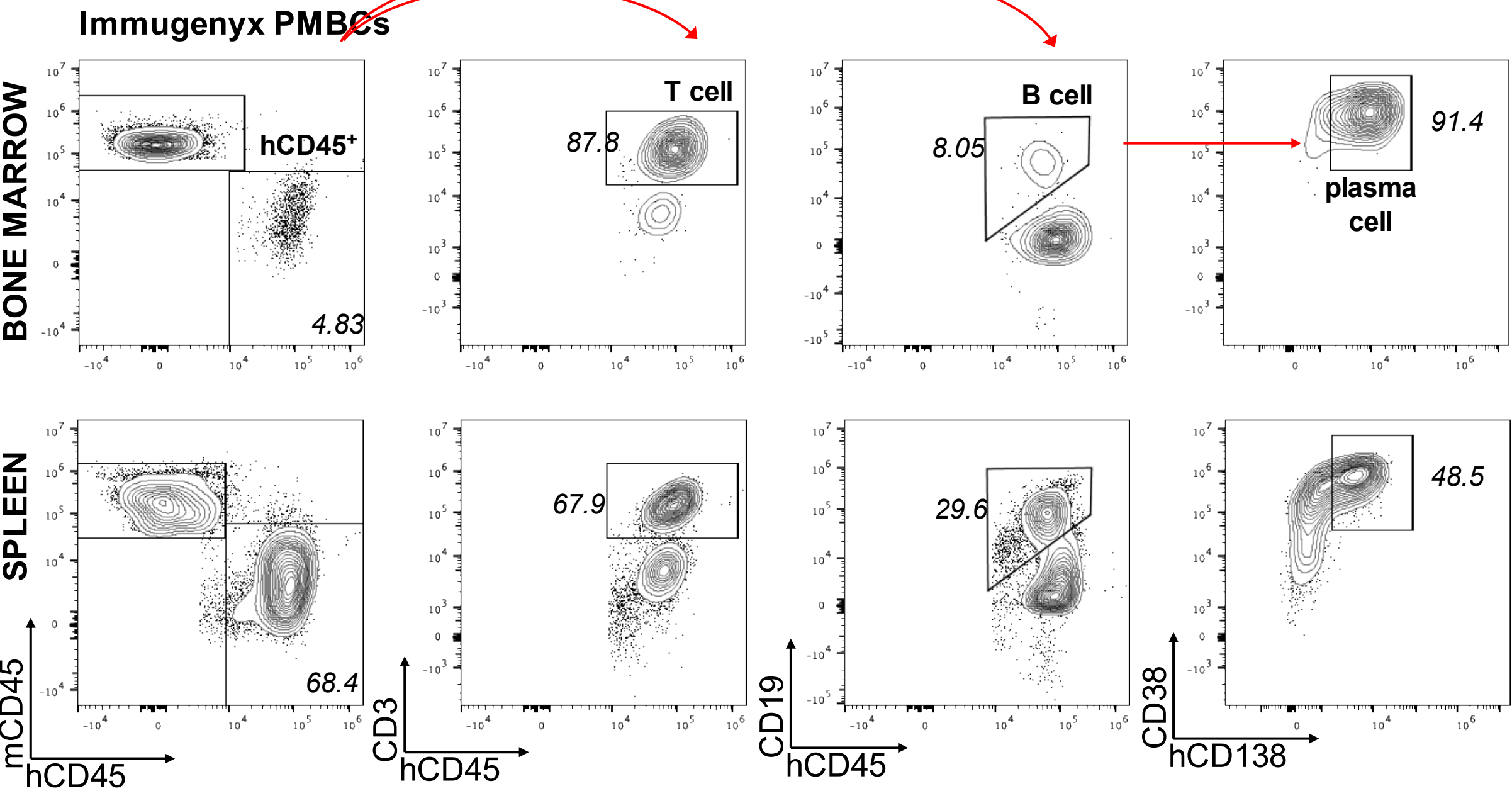
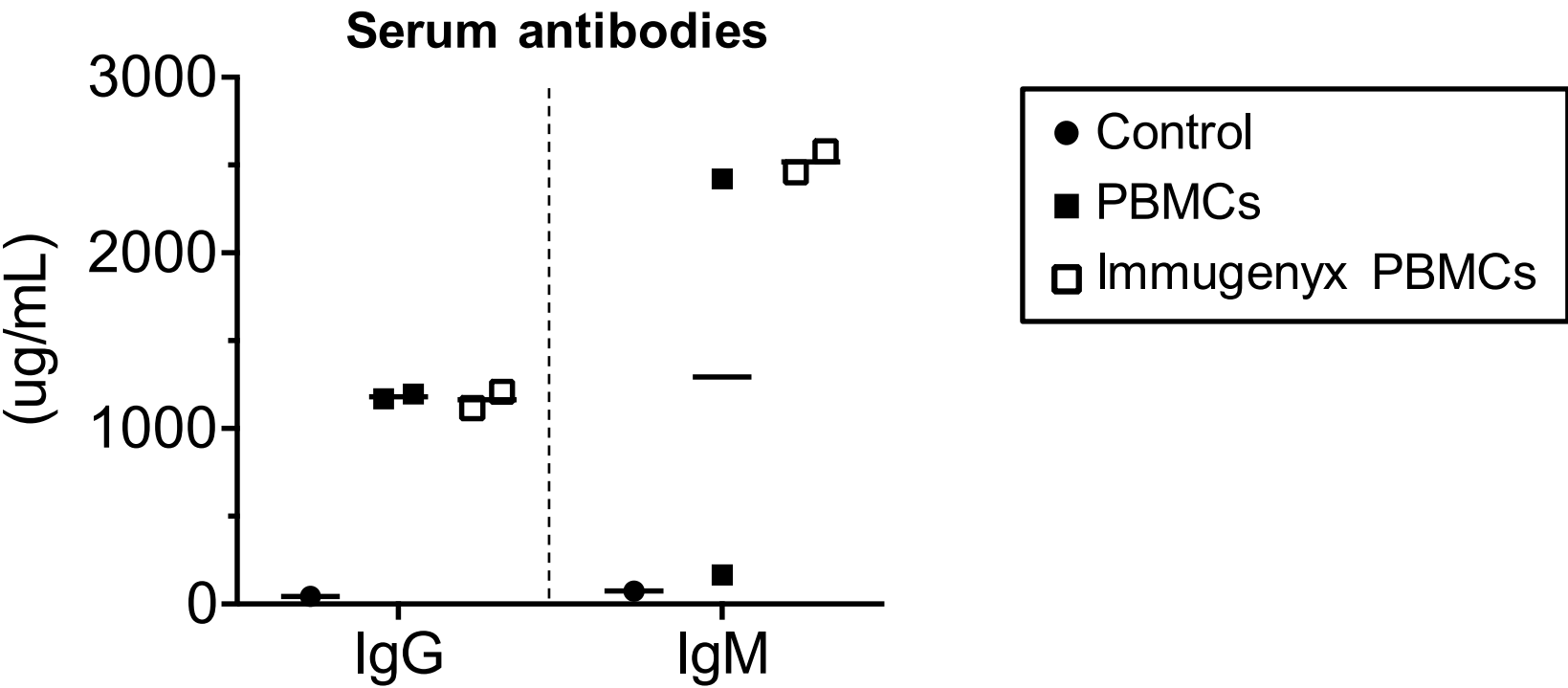
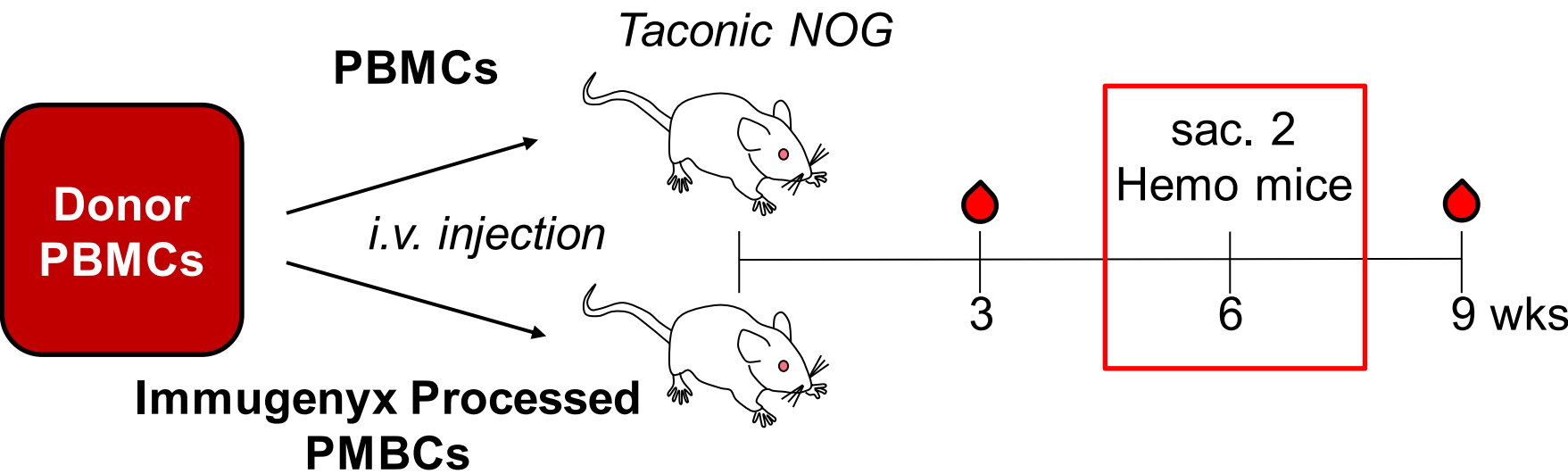
1. Properties
2. Application Examples

# Immugenyx Processing of PBMCs Prior to Transplantation Prevents Development of GVHD and Retains Normal Engraftment Frequencies



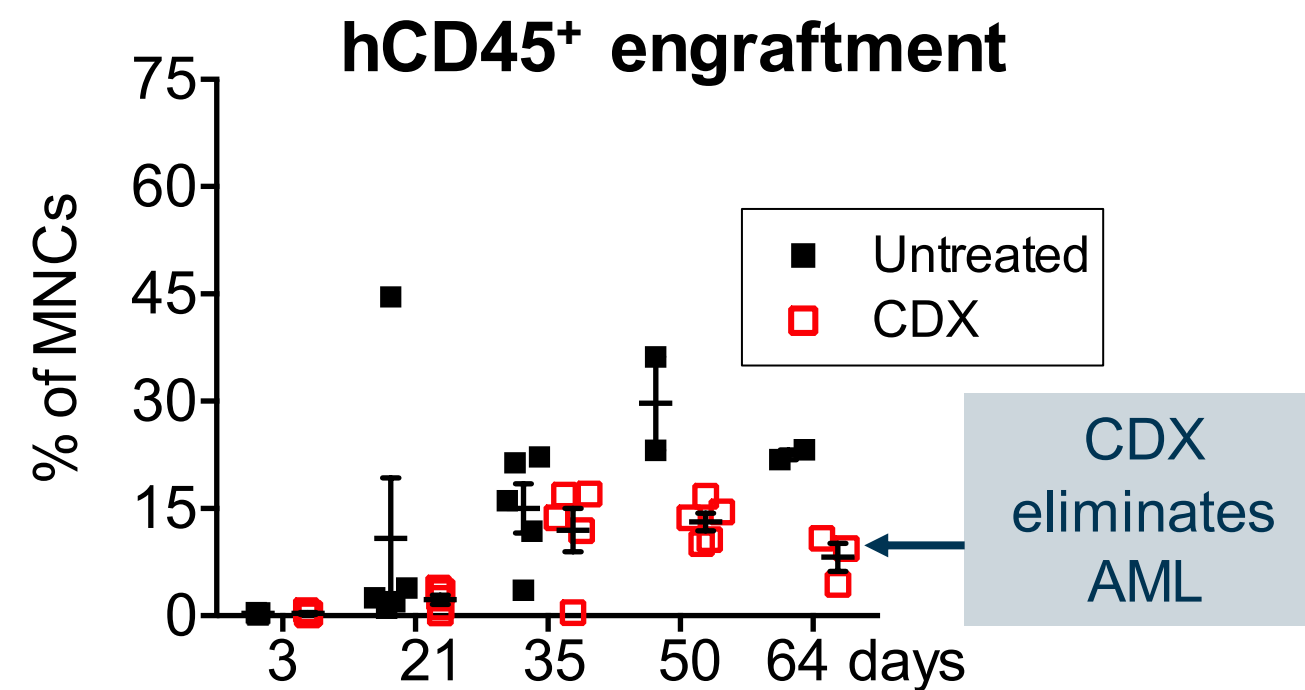
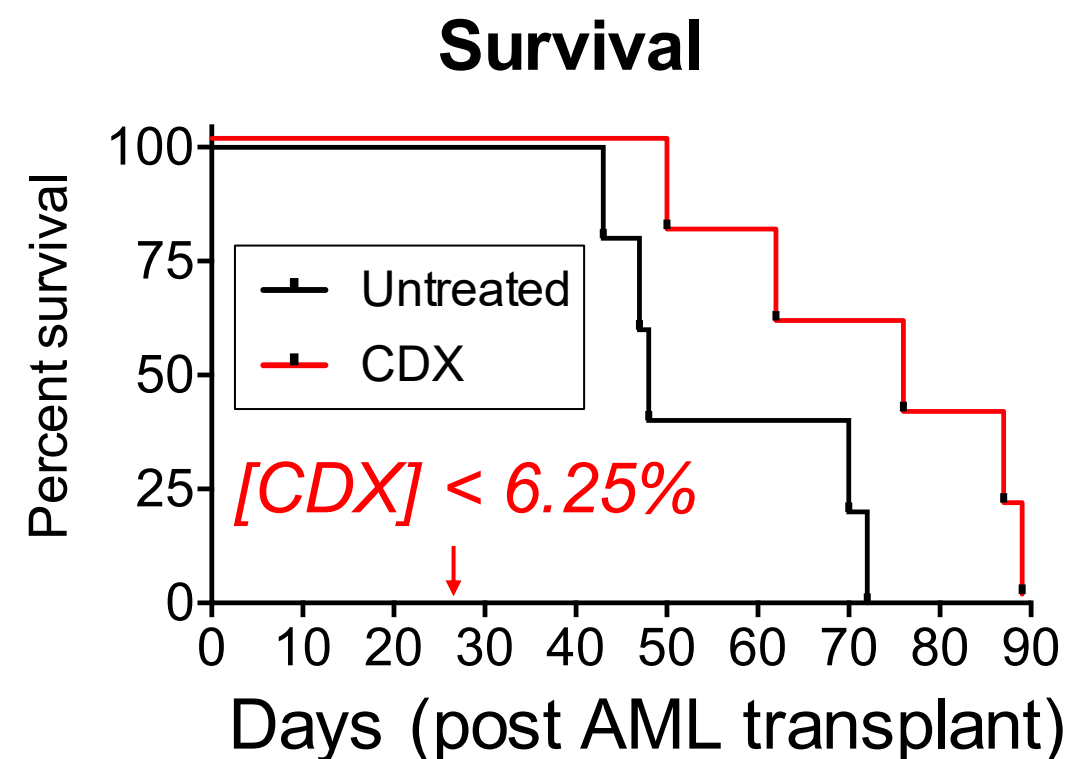
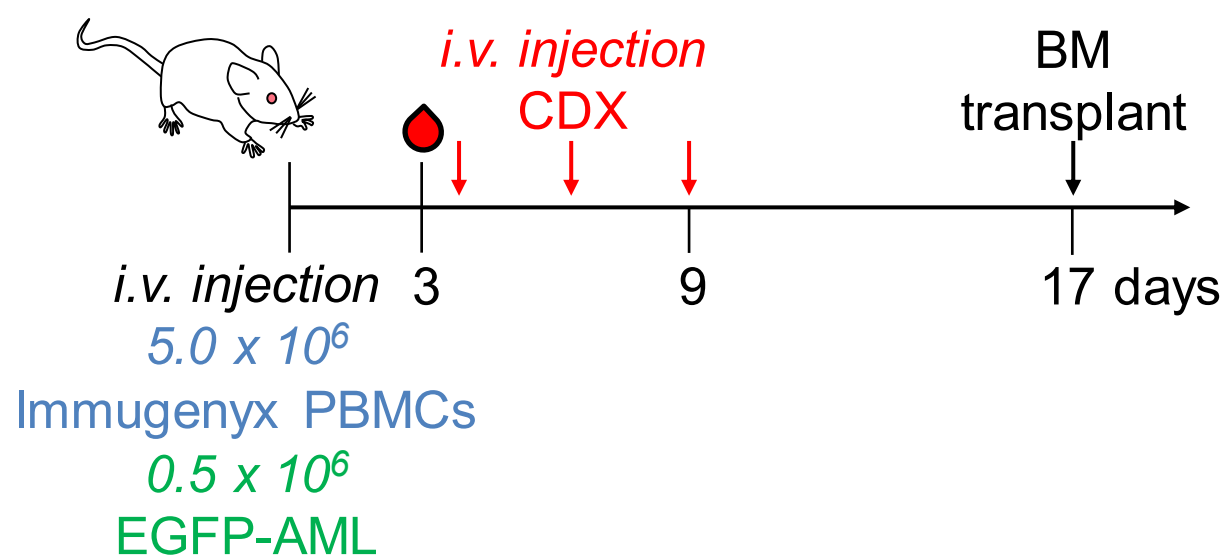


# Lymphocyte Engraftment of Hematopoietic Organs with Presence of Human IgG/IgM in Plasma

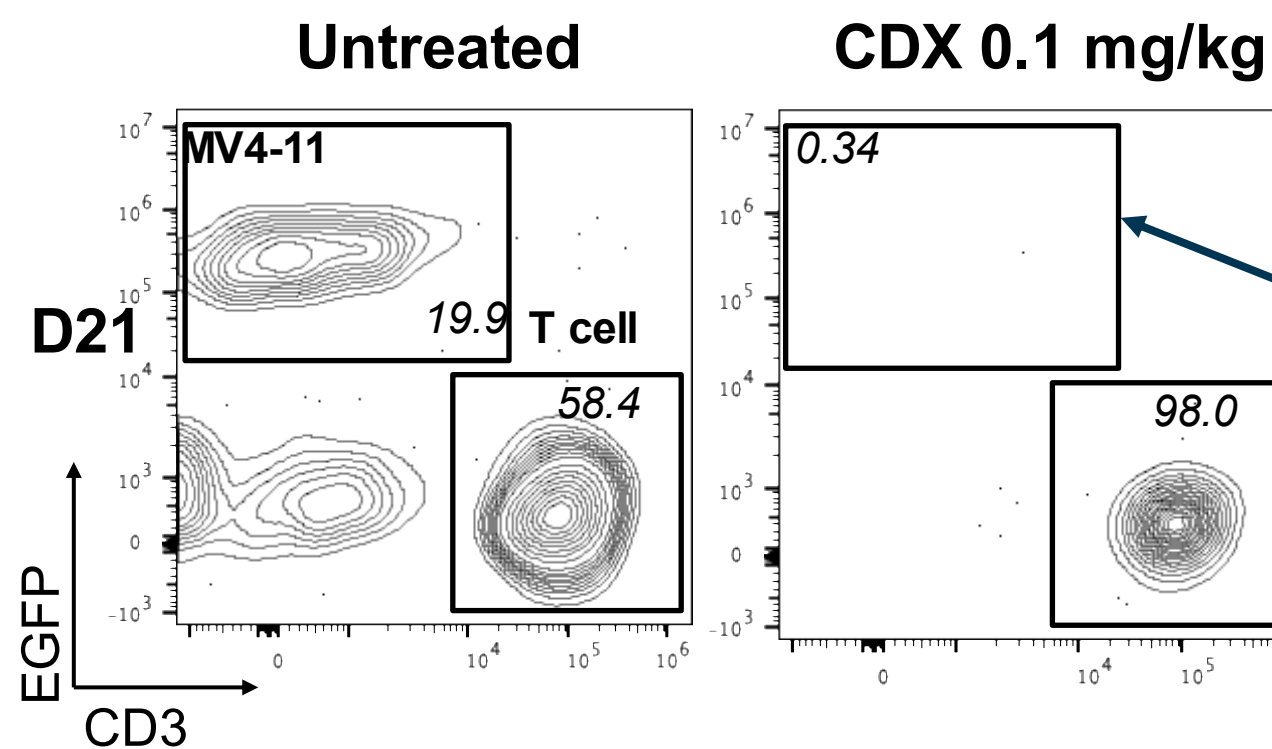


### Targeting of AML-derived cells in vivo

Immugenyx (Hemogenyx subsidiary) proprietary novel Advanced peripheral blood Hematopoietic Chimera humanized mouse model

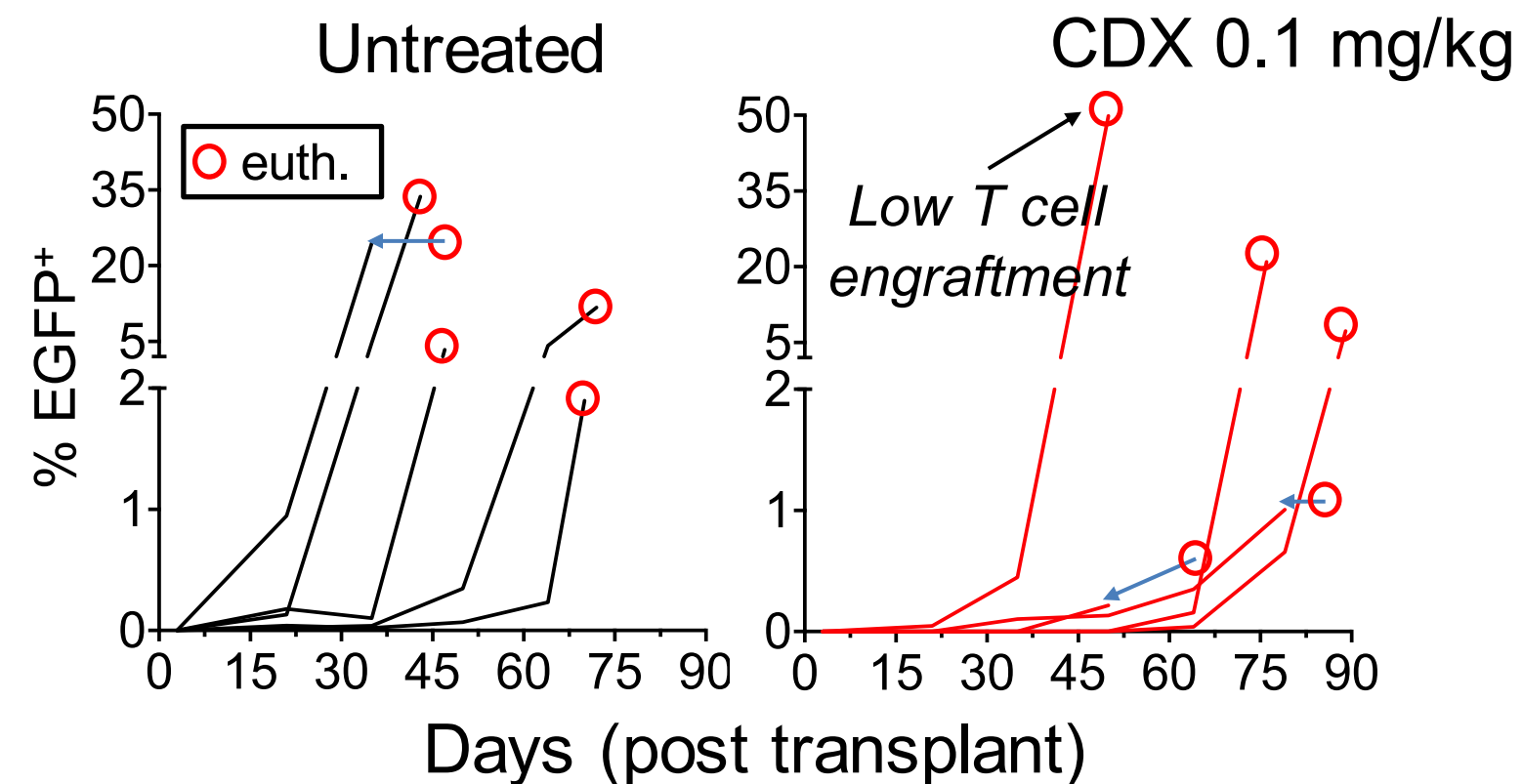


### Peripheral blood hCD45<sup>+</sup>



CDX eliminates AML

### AML progression





GET IN TOUCH

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