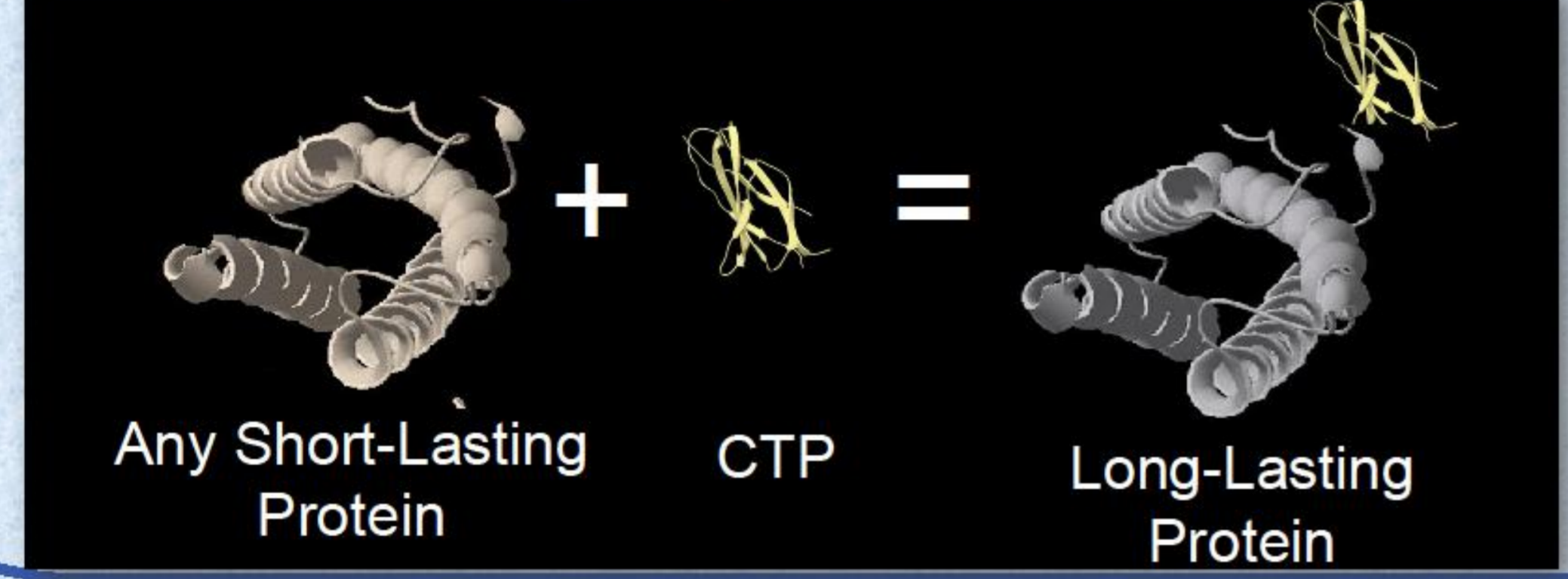


CTP - A CLINICALLY VALIDATED TECHNOLOGY FOR ELONGATING THE HALF LIFE OF COAGULATION FACTORS, ENABLING A PROLONGED HAEMOSTATIC ACTIVITY IN HEMOPHILIC ANIMAL MODEL

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Introduction: Prolor Biotech Inc. is a clinical stage public company developing biobetter long acting versions of existing therapeutic proteins utilizing a technology called CTP. The technology involves fusion of the C terminus peptide of hCG to one or both ends of the target protein. The technology was clinically validated and proven as a safe and efficient way for increasing the half-life of several therapeutic proteins while maintaining their biological activity.

CTP – A Natural Peptide Created During Evolution to Enhance Longevity of the hCG Hormone



CTP Long lasting Clotting Factors Program: Summary & Perspectives

FVIIa-CTP

- Pharmacokinetic parameters, as assessed by a clotting assay, were superior to those of rFVIIa. Its half-life and AUC were 5 and 3.5 fold higher, respectively and significantly improved recovery was observed.
- In a TVT study, FVIIa-CTP had a profound survival effect which was maintained for a significantly longer period.
- FVIIa-CTP specific activity was comparable to FVIIa.

FIX-CTP

- FIX-CTP half life, as assessed by a clotting assay, was 4-5 times longer than rFIX. Fusion of CTP significantly improved FIX recovery while its specific activity was slightly reduced.
- A significant reduction in bleeding duration and intensity following a tail vein bleeding challenge in FIX -/- mice was observed.

Fusion of CTP to FVIIa and FIX has a markedly enhanced pharmacokinetics, increased exposure, increased recovery and a prolonged hemostatic effect in hemophilic mice.

CTP fused coagulation factors can improve prophylactic and on-demand therapy in patients.

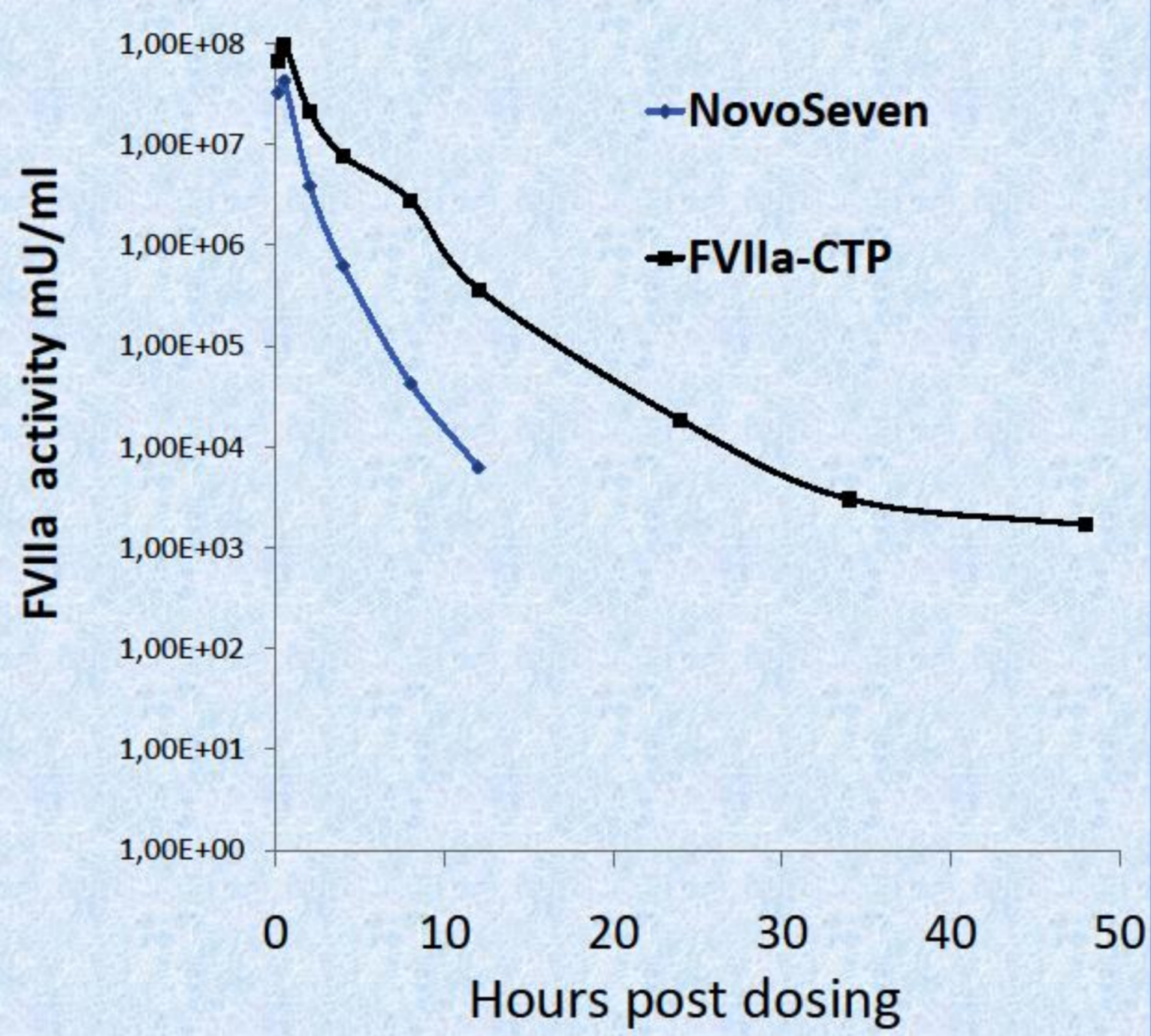
Long acting FVII-CTP Demonstrates Improved Recovery, PK profile and prolonged Haemostatic Effect

Factor VIIa-CTP Shows Superior Recovery, Efficacy and Longevity in FVIII-/- Mice

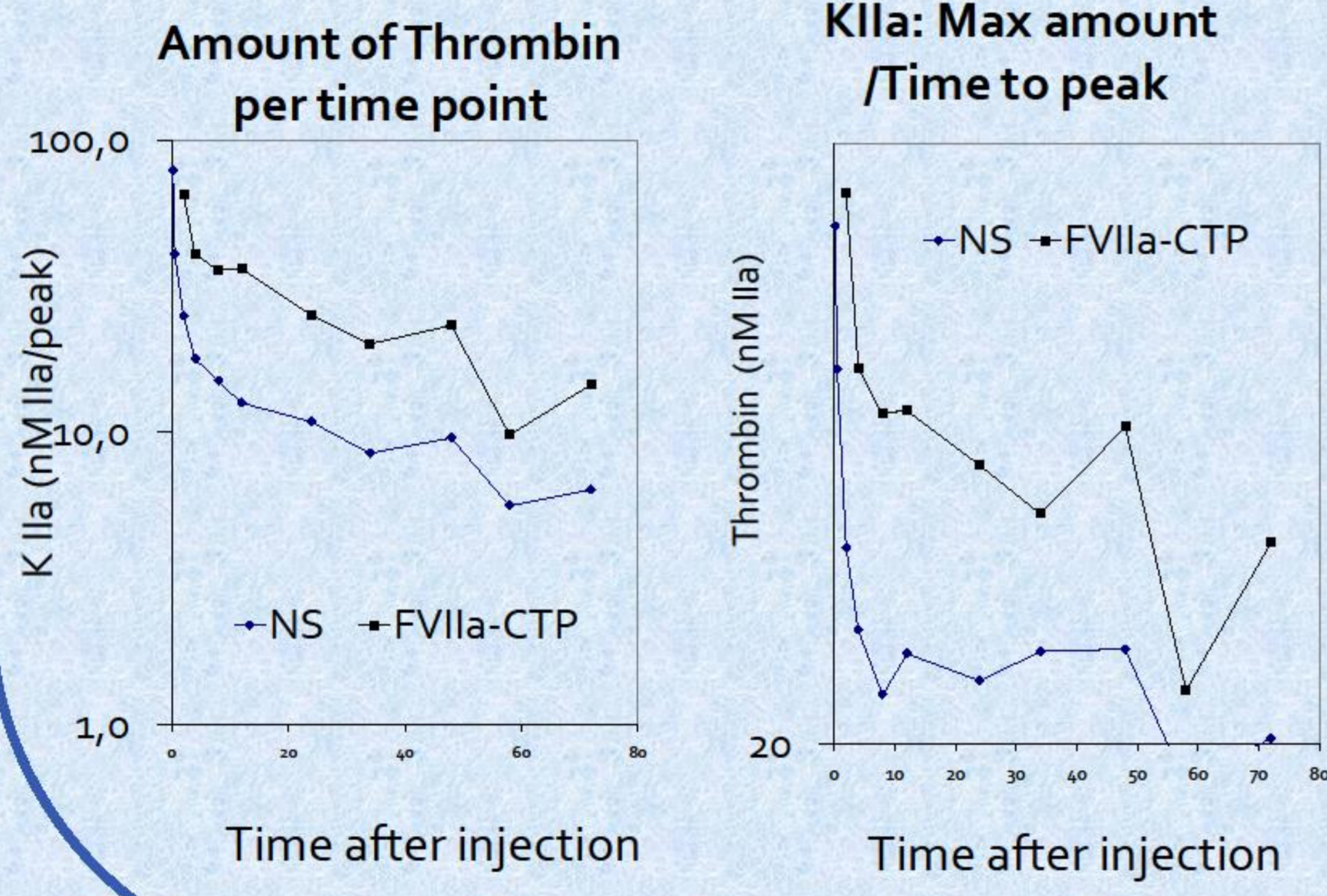
Factor VIIa-CTP Improved In Vivo Recovery (IVR)

Test Article	Practical Inj. Dose (U/ml)	Cmax U/ml	% IVR
NovoSeven	1.23e6	4.25e4	30
rFVIIa-CTP	1.29e6	9.74e4	64.6

PK Study in FVIII-/- Mice



Factor VIIa-CTP Improves In Vivo Thrombin Generation Performance

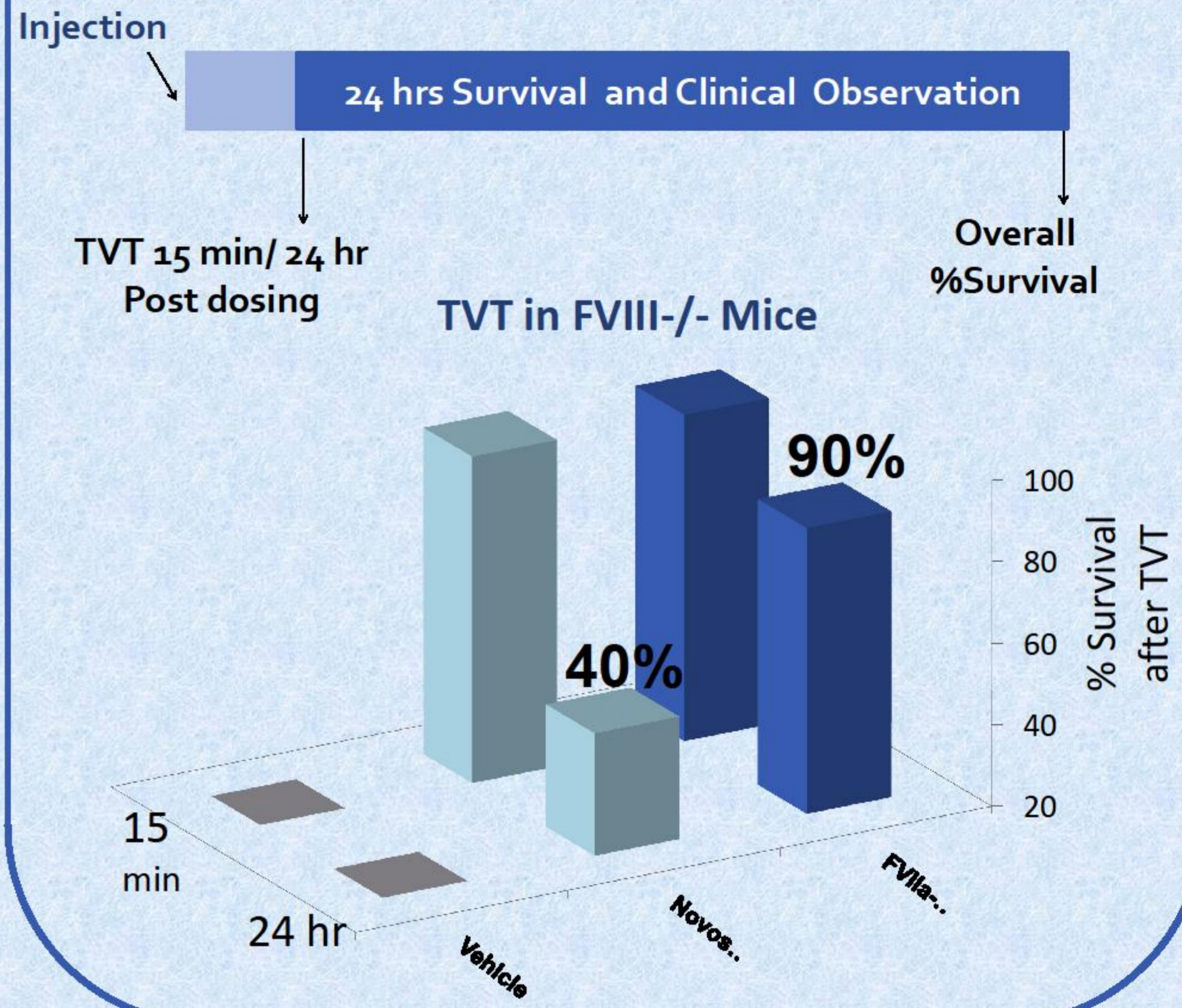


PK Parameters

PK Par.	NovoSeven	FVIIa-CTP
Half-life (0.5-48hr)	0.9	4.9

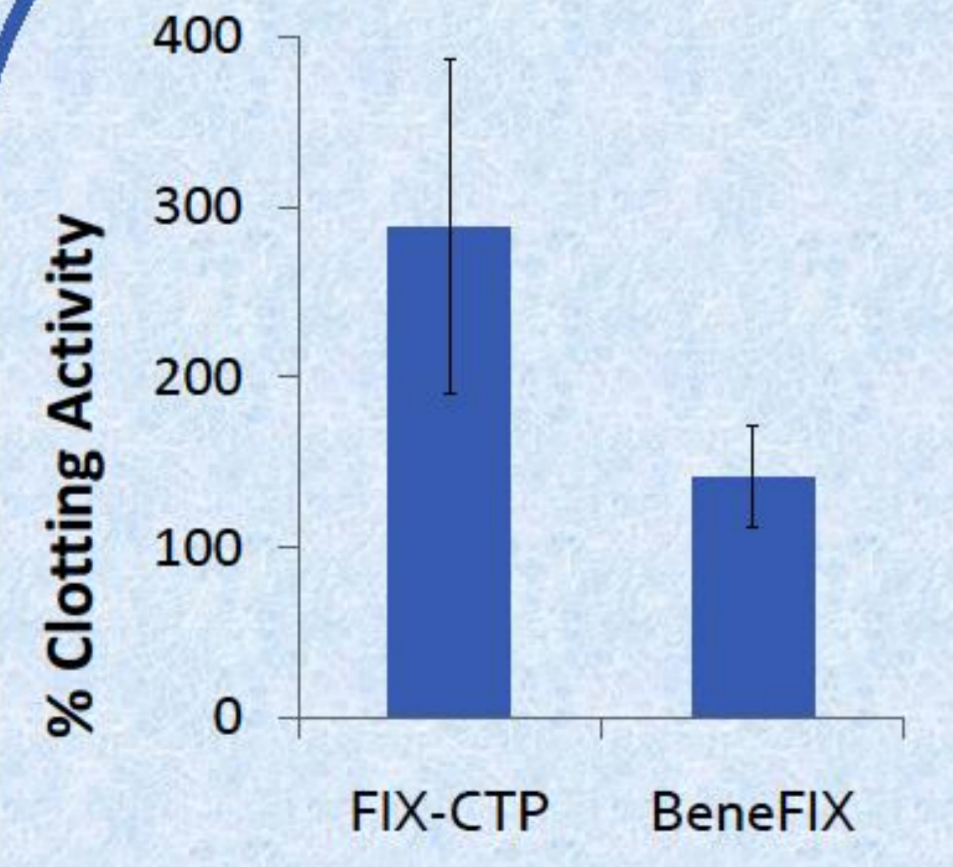
FVIIa-CTP Has a Profound Survival Effect as Compared to FVIIa Following TVT

FVIII -/- mice were administered IV with $-1.6e5$ U of NS or FVII-CTP₃ (10 mice). Five mice (per time point) were injected with 200ul of vehicle as control. 15 min, & 24 hr post dosing the tail vein was cut. Animals survival and clinical condition were evaluated for 24 hours.

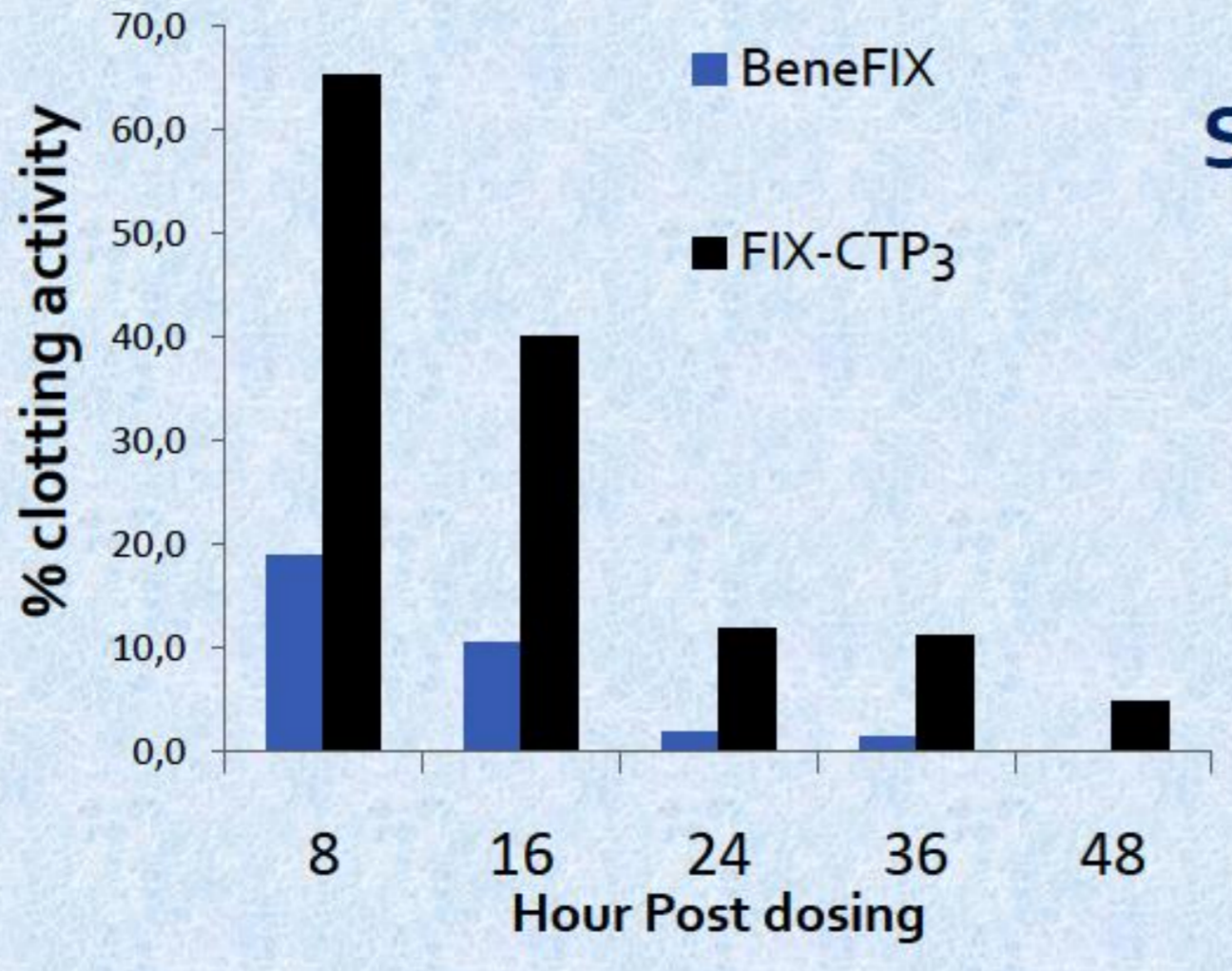


Long acting FIX-CTP Demonstrates Improved Recovery, PK profile and prolonged Haemostatic Effect

In-Vivo Recovery



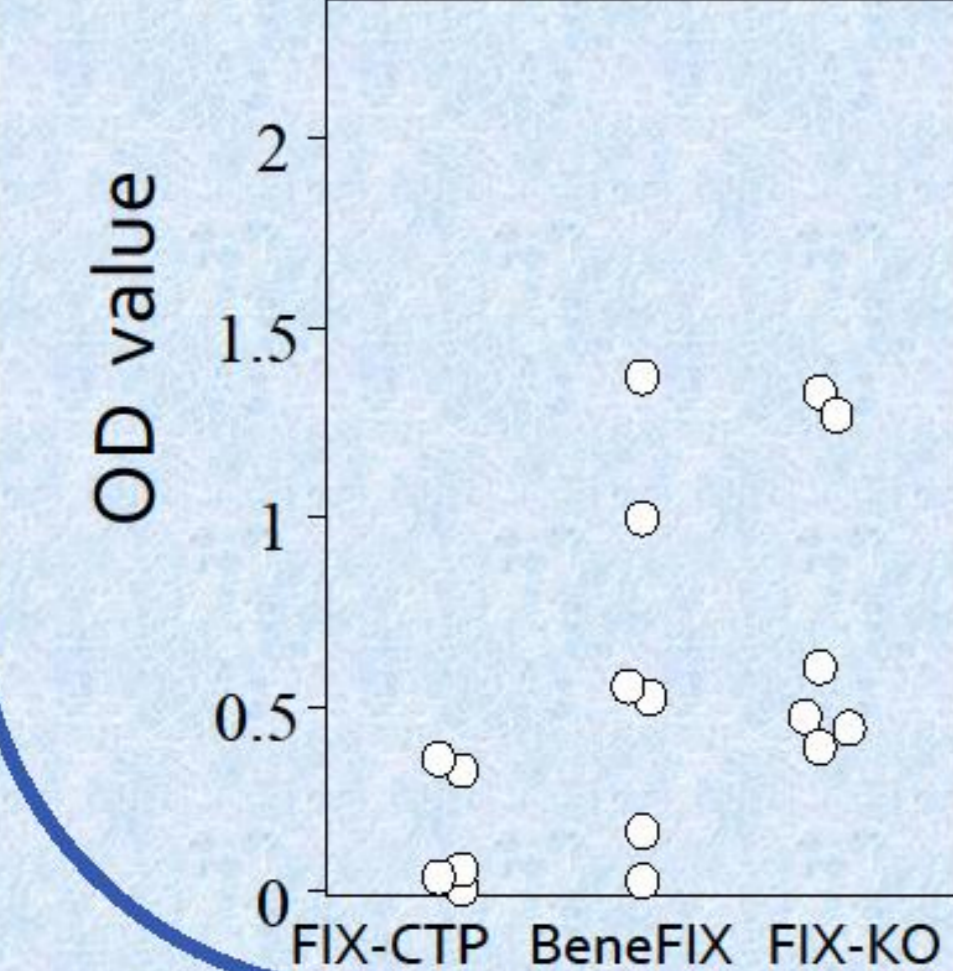
PD Profile



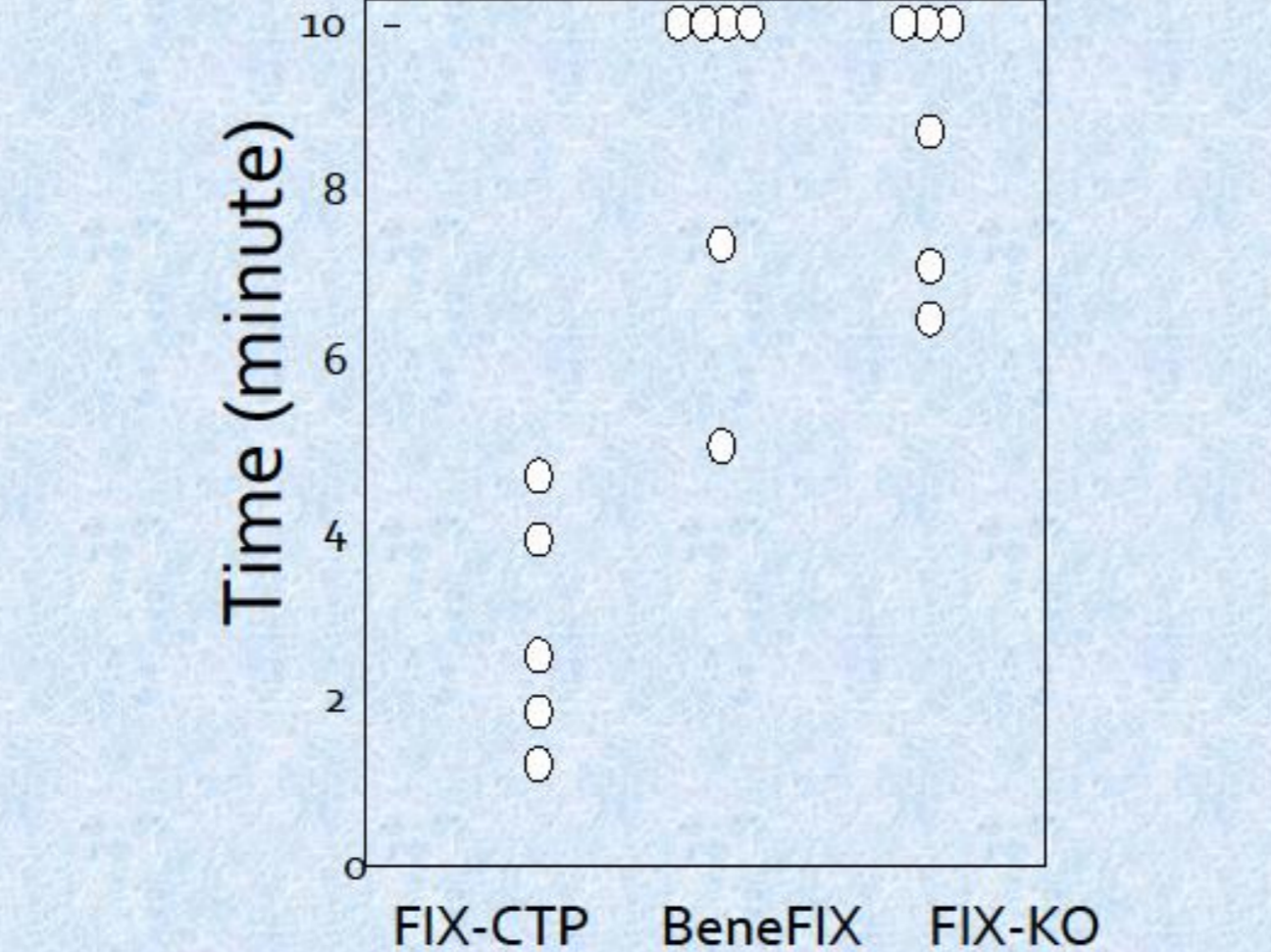
Survival Outcome Following Observation Post Bleeding Challenge.

Product	Delayed re-bleeding	Death
FIX-CTP (100U/kg)	0/5 (0%)	0/5
BeneFIX (100U/kg)	3/6 (50%)	0/6
FIX-/- (untreated)	5/6 (100%)	1/6

Bleeding Intensity



Bleeding Time



FVIIa-CTP Anticipated Milestones Timing

Manufacturing process optimization and GMP Production	Q3 2012- Q1 2013
Toxicology studies supporting IND	2012
Phase IIa	2013

