



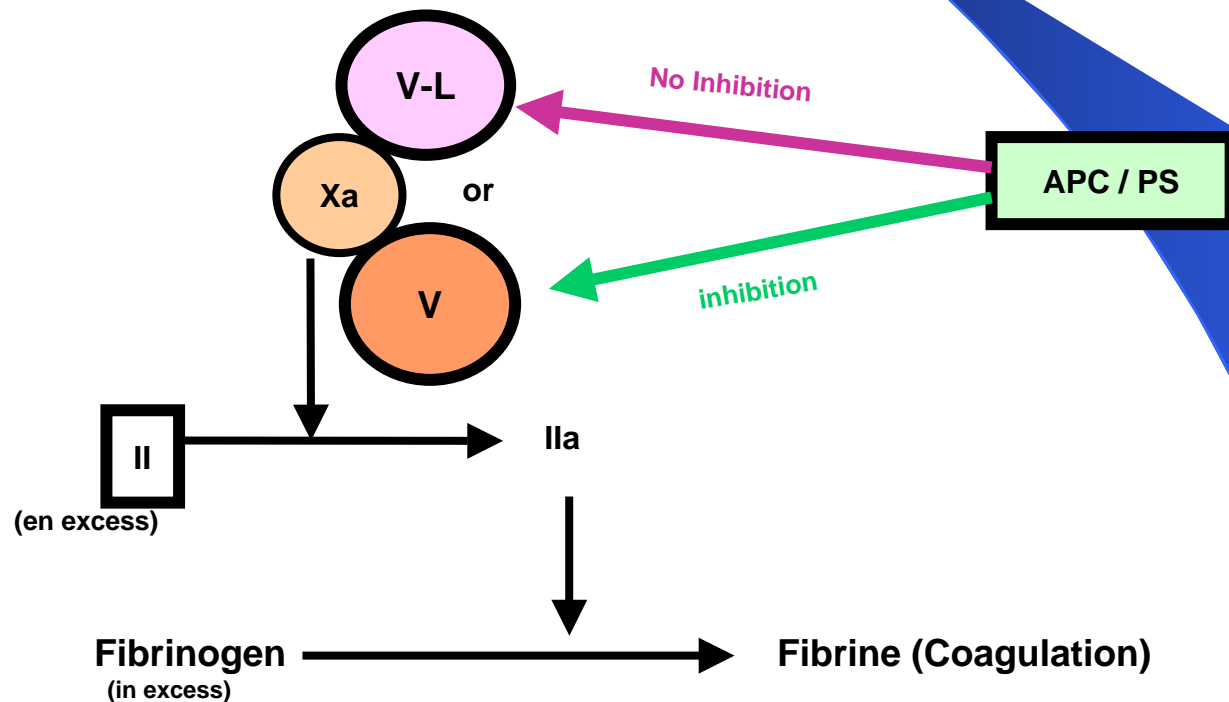
## **HYPHEN *BioMed SAS***

New Quantitative Assay for Factor V-Leiden

**Measuring APC Resistance Associated  
With Factor V-Leiden,  
Quantitatively**

*A Simple and Calibrated Assay for measuring the Factor V-Leiden Concentration, using a Single Clotting Test.*

# Quantitative Evaluation of FACTOR V-LEIDEN



# RESULTS with the usual assay

CT1 without APC  
CT2 with APC

$CT2/CT1 < 1.80$   $\Rightarrow$  V-L

$1.80 < CT2/CT1 < 2.00$   $\Rightarrow$  ??

$CT2/CT1 > 2.00$   $\Rightarrow$  V-N

# REAGENTS (QUANTITATIVE V-L)

- R1  
(Fibrinogen/Prothrombin/PS/APC/Polybren)
- R2  
(Xa/Phospholipids/Ca<sup>++</sup>)

1/20 Diluted Plasma

⇒ C.T.

# CALIBRATION

Heterozygous Factor V-L Plasma Pool  
(50% of Factor V  $\Rightarrow$  V-L)

- $1/20 \Rightarrow 50\%$  V-L
- $1/10 \Rightarrow 100\%$  V-L

# PROTOCOL

At 37°C :

100 µL R1

50 µL Plasma diluted 1/20

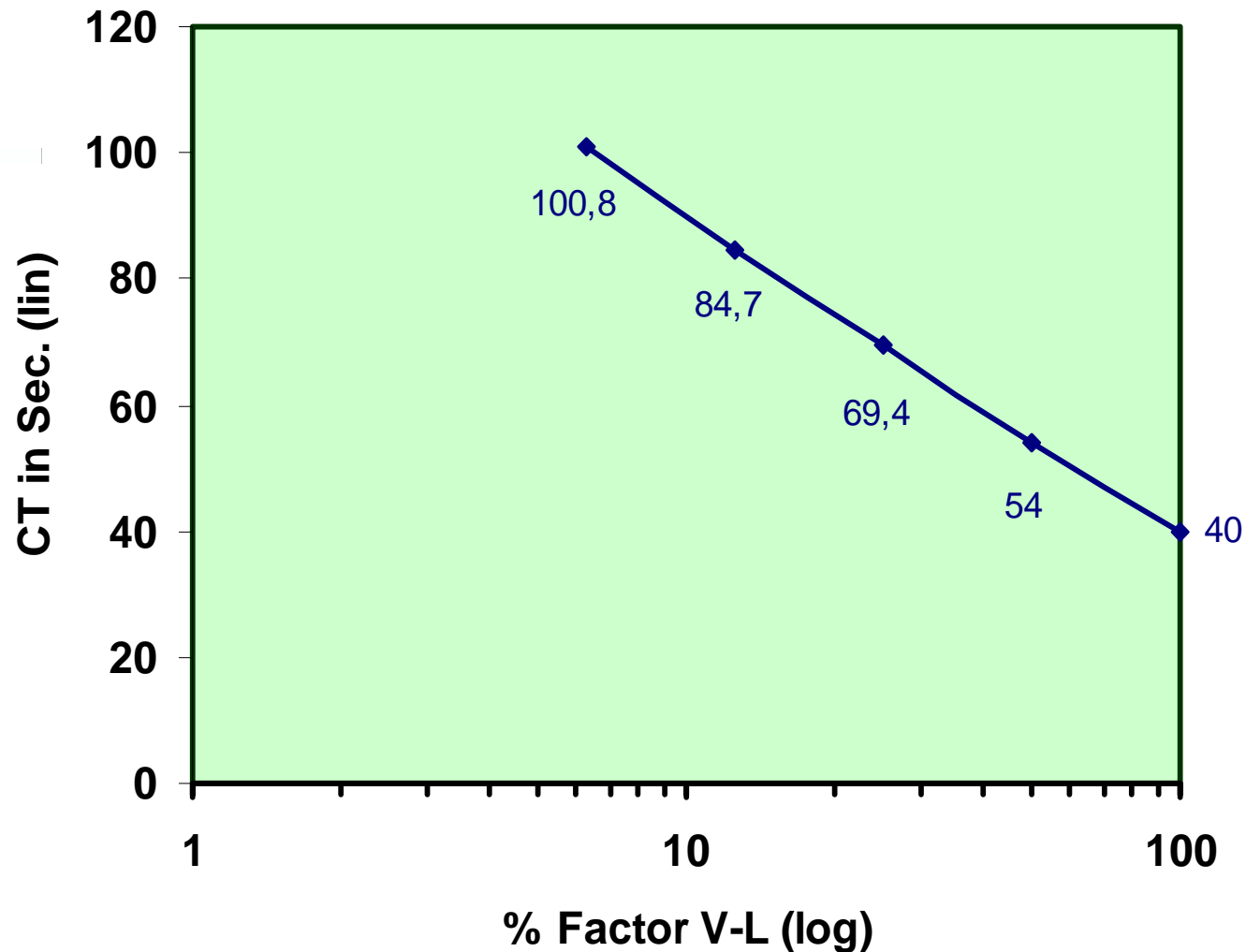
Incubation 1 minute at 37°C

100 µL R2

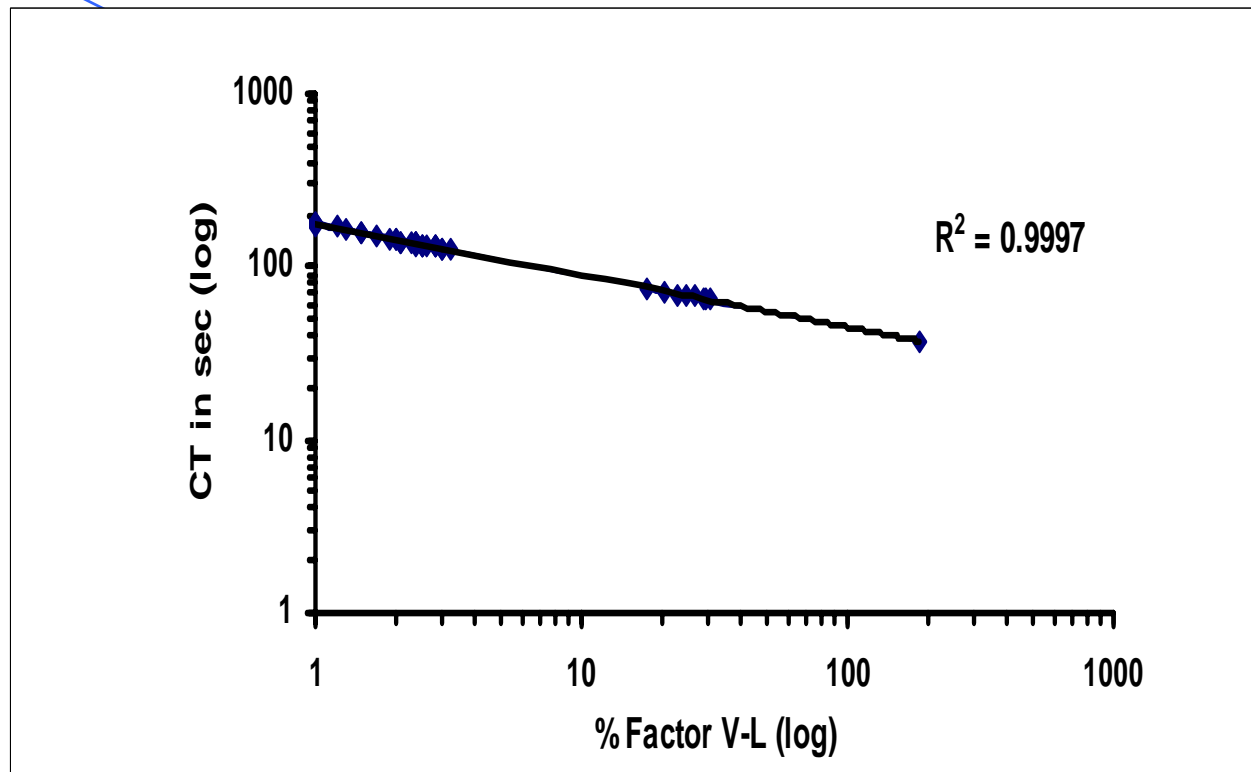
Measure Clotting Time (CT)

# CALIBRATION CURVE

## Factor V-L quantitation



# QUANTITATIVE ASSAY OF FACTOR V-L



# RESULTS with the New Assay

NORMALS :  $V-L \leq 5\%$

HETEROZYGOUS :  $V-L$  de 25 - 60 %

HOMOZYGOUS :  $V-L \geq 70\%$

If necessary : Measure factor V

# CONCLUSIONS

- Quantitative Reagent for Measuring Factor V-Leiden
- No Interference of Plasma Factor Deficiencies (Other than that of Factor V).
- Excellent Discrimination Between Heterozygous/Homozygous and Normals.
- Only a Clotting Time (CT).