

To: Elizabeth Holmes[eholmes@theranos.com]
Cc: Gary Frenzel[gfrenzel@theranos.com]
From: Ian Gibbons[/O=THERANOS ORGANIZATION/OU=FIRST ADMINISTRATIVE GROUP/CN=RECIPIENTS/CN=IGIBBONS]
Sent: Sun 6/8/2008 8:09:46 PM (UTC)
Subject: Theranos Disease and Therapy Monitoring System.ppt

Theranos Disease and Therapy Monitoring System

Performance Summary

Ian Gibbons

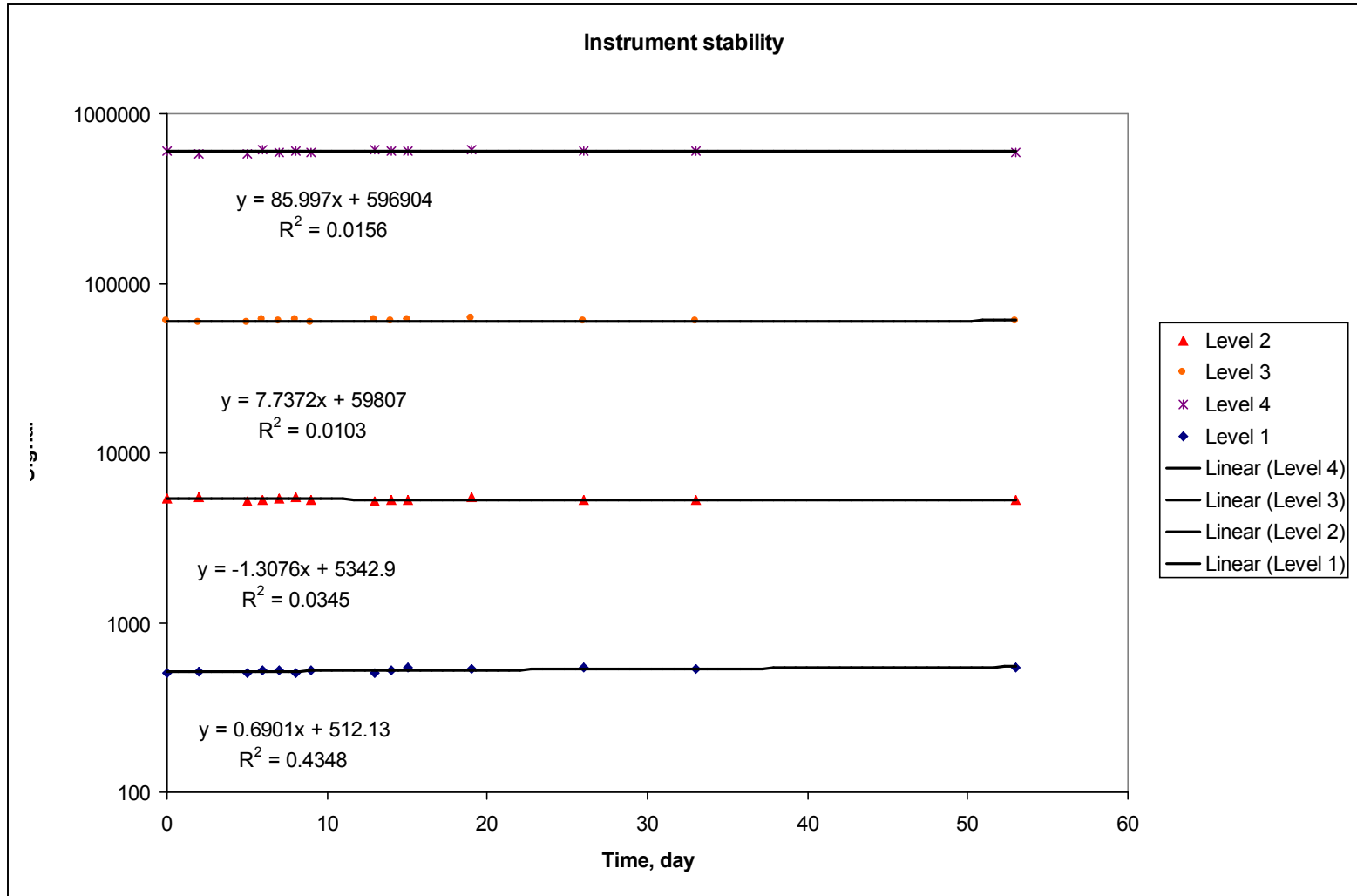
June 2008

System Design

- Multiplexed measurement of biomarkers
 - Max 6 per cartridge
- Serial measurements to detect trends
- Blood, plasma or serum samples
- Small sample size (20 uL)
- Mix and match selection of analytes
- Wide measurement range
 - pg/mL – mg/mL (1 billion fold)
- High sensitivity
 - 0.2 pg/mL (2 parts per 10-billion)
- On-board chemistry controls
- Factory calibration (no user calibration)
- Wireless communication of results to appropriate user
- Proprietary algorithms to interpret time trend results

Instrument optics stability

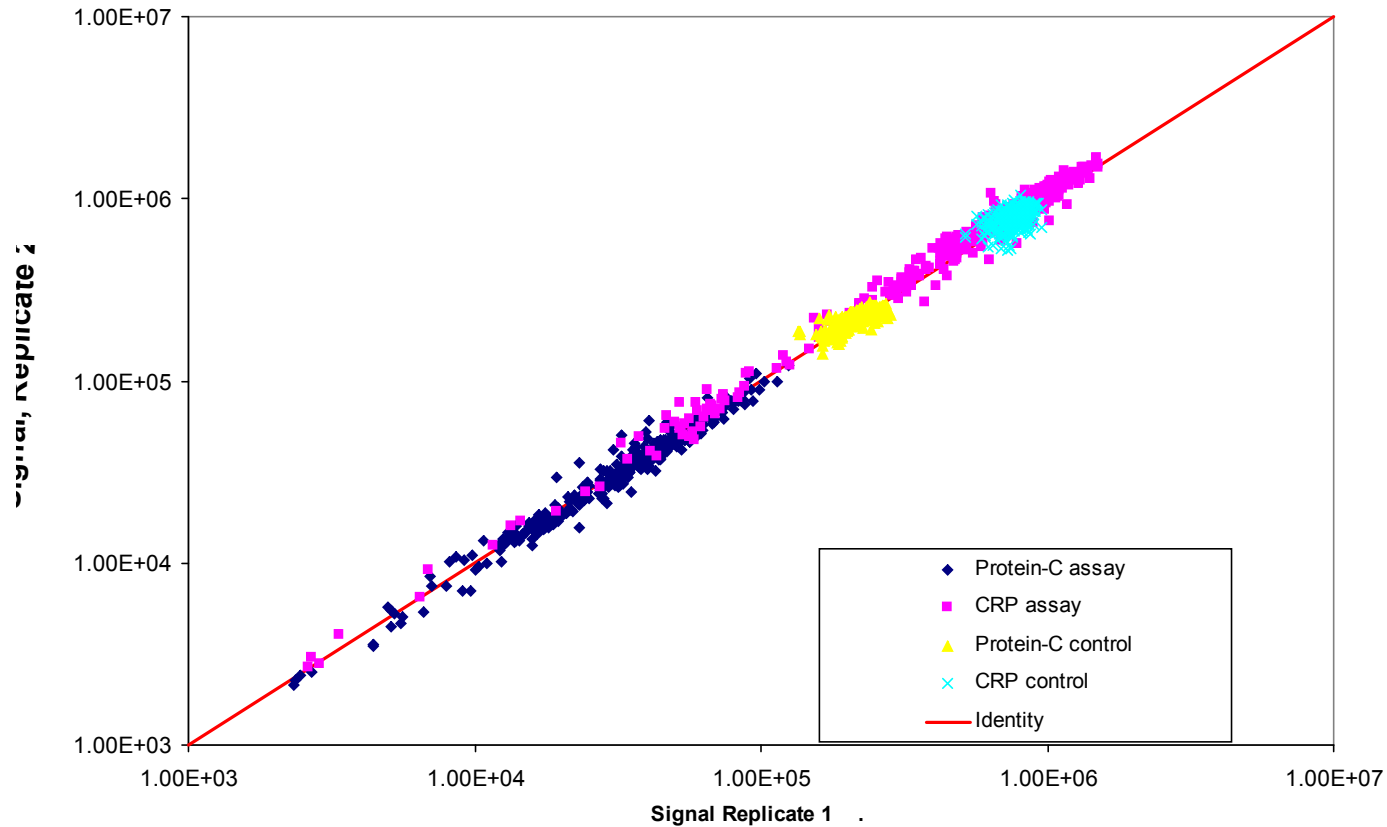
Perfectly stable over two months



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System is precise and stable

Replicate measurements within single cartridges for two assays and two controls agree for blood samples in clinical study (sepsis)

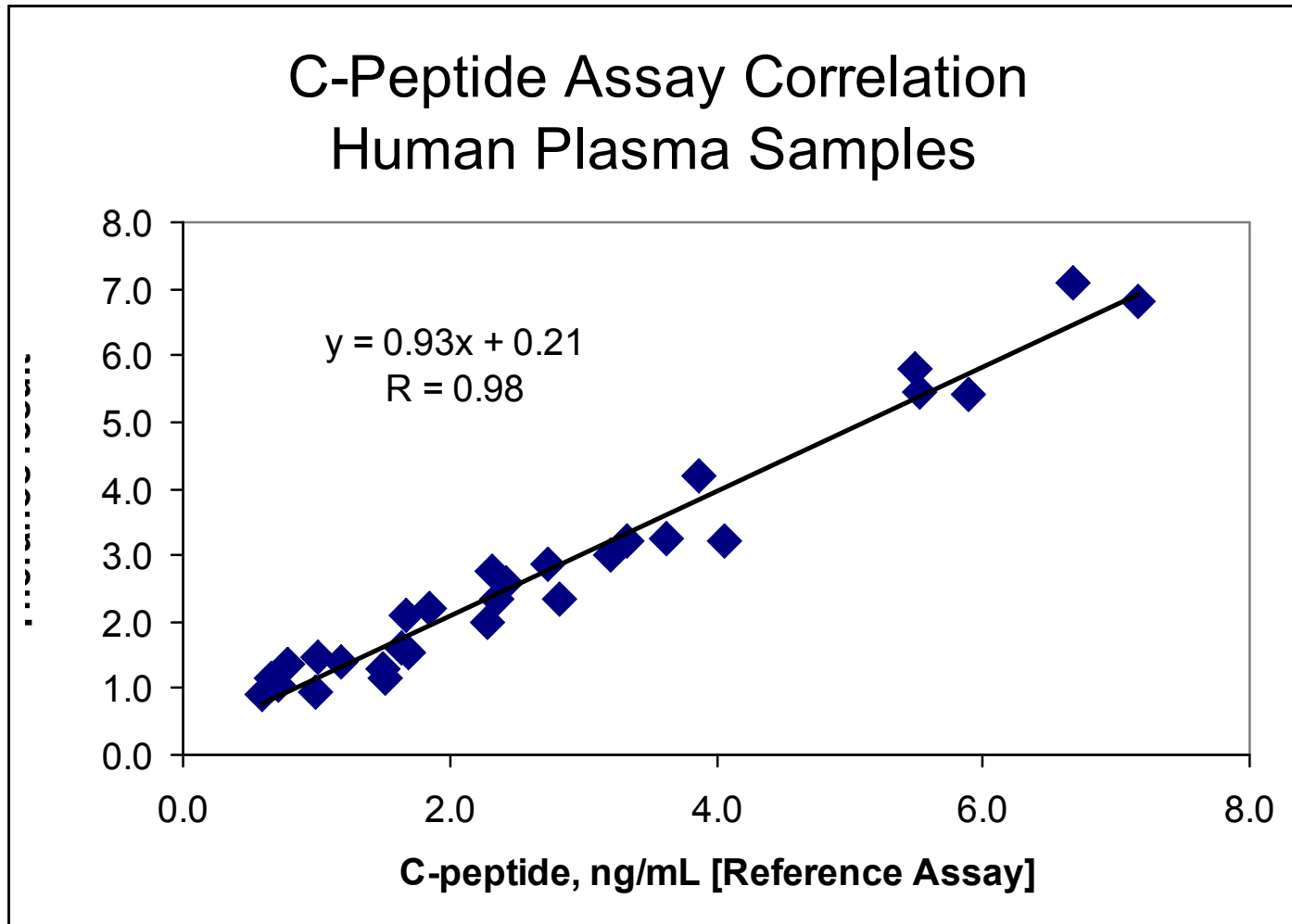


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Assay results correlate well with reference methods

Drug Company Validation Study



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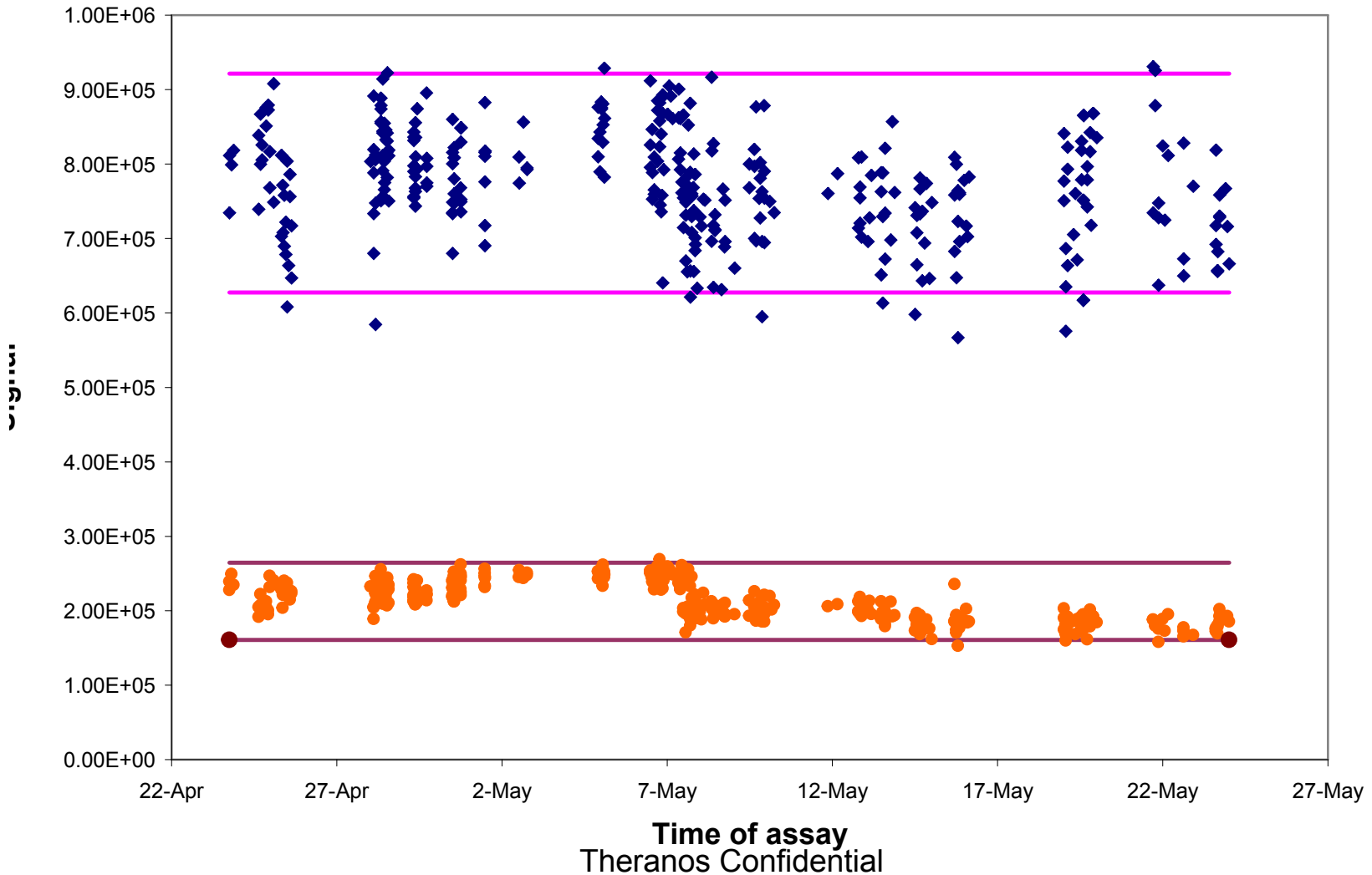
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Sensitivity matches or exceeds best available methods in real samples

- GLP-1: 0.17 pM (drug company study)
- IL-6: 0.4 pg/mL (in house study)

Controls verify system performance

Clinical study over one month System calibration was stable
Two assays, 20 instruments, 360 cartridges

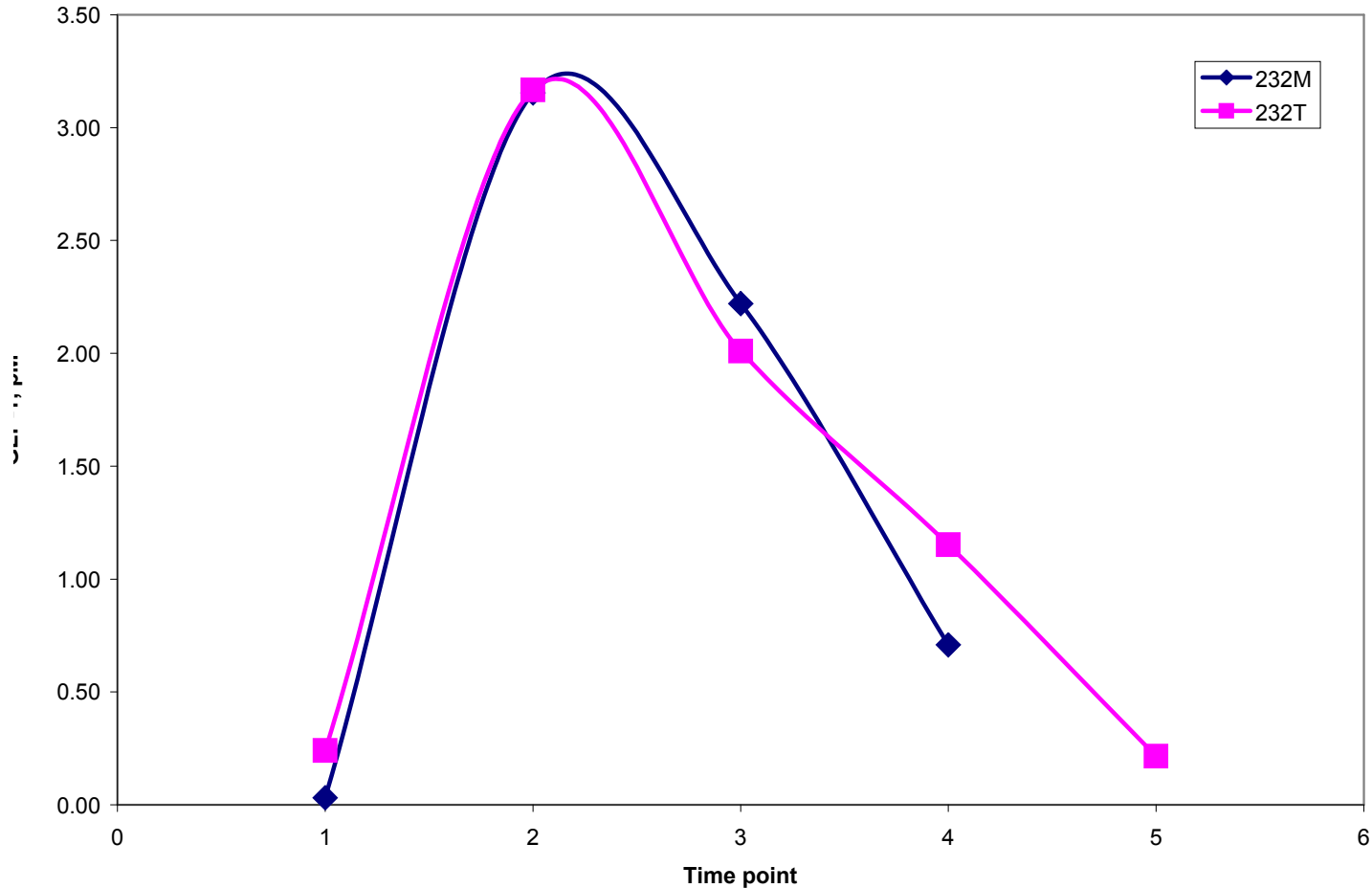


GLP-1 release, pre-clinical drug company study

Theranos results compared with best available method:

Human subjects: food challenge

Subject 232

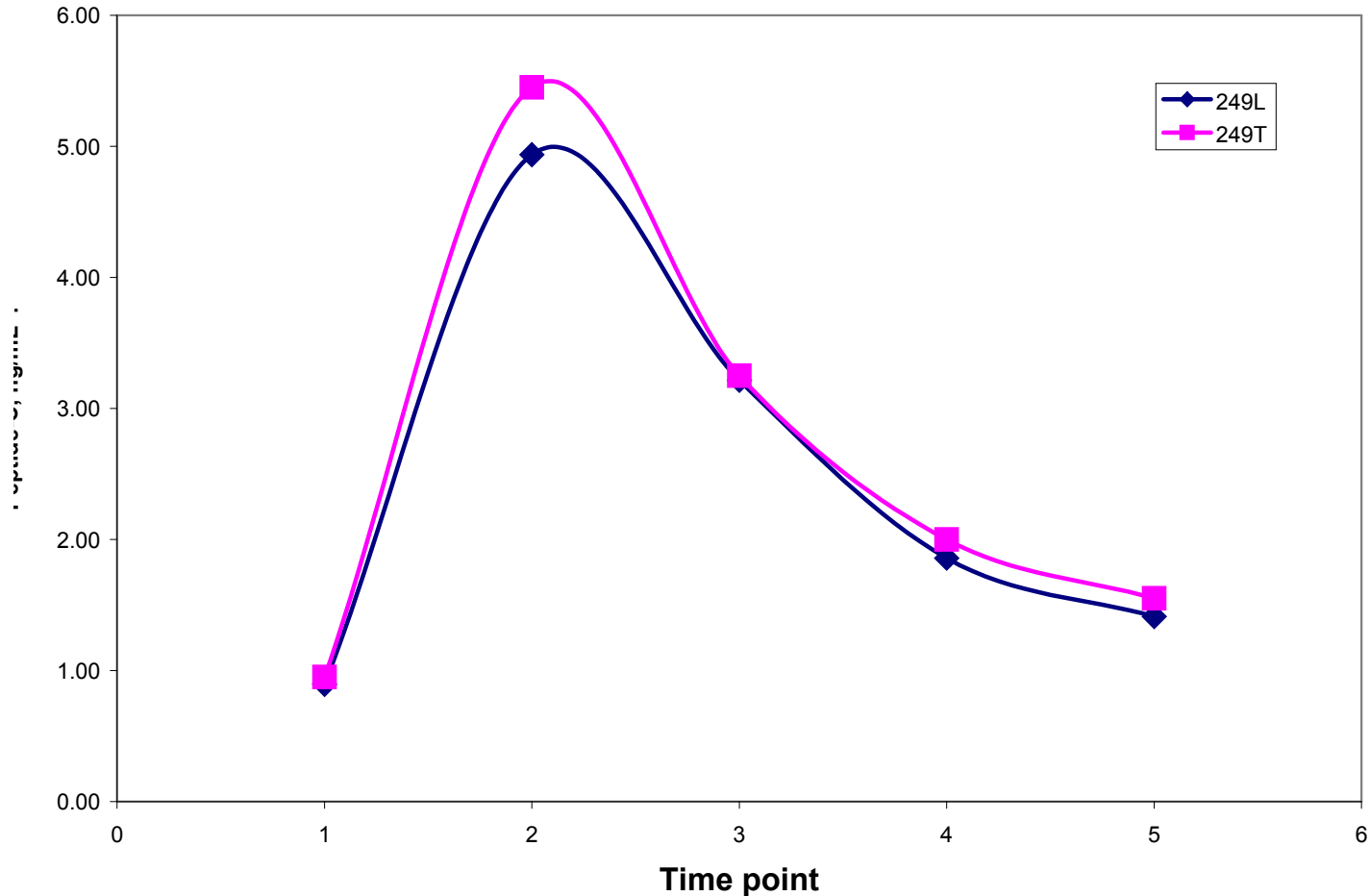


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C-Peptide release, pre-clinical drug company study

Theranos results compared with best available method:
Human subjects: food challenge

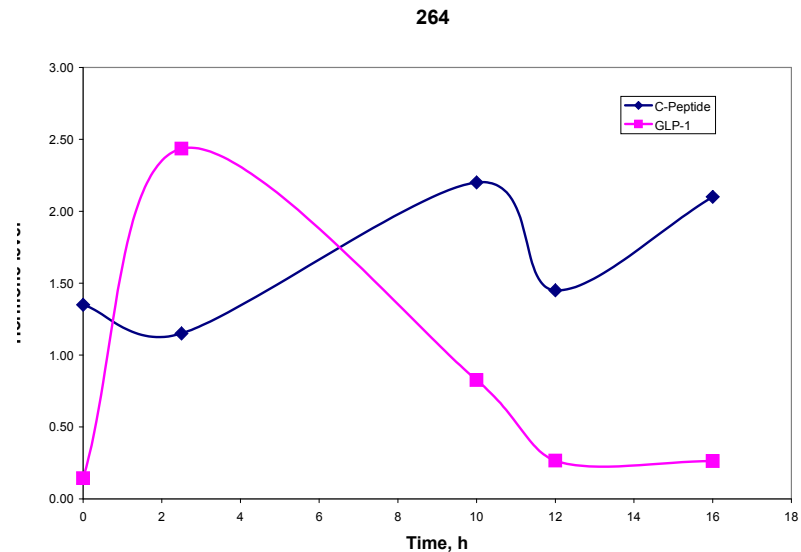
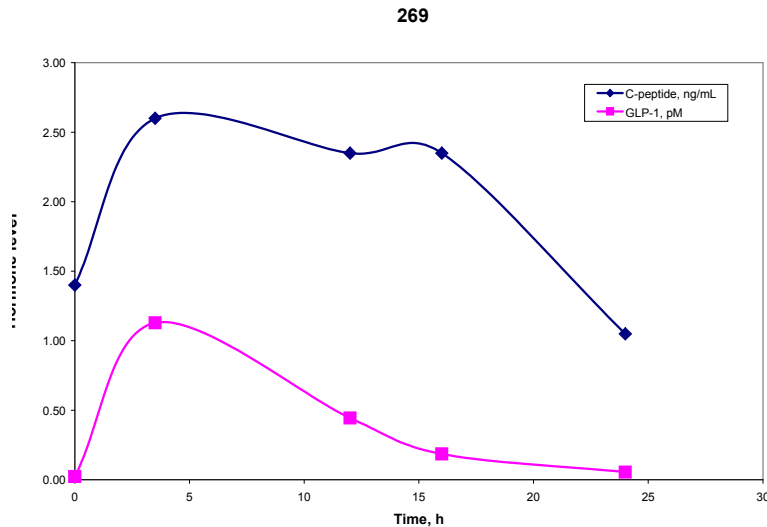
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Using multiple markers to see differences between patients

Theranos multiplexed measurements of GLP-1 and C-peptide in two patients
Drug company pre-clinical trial

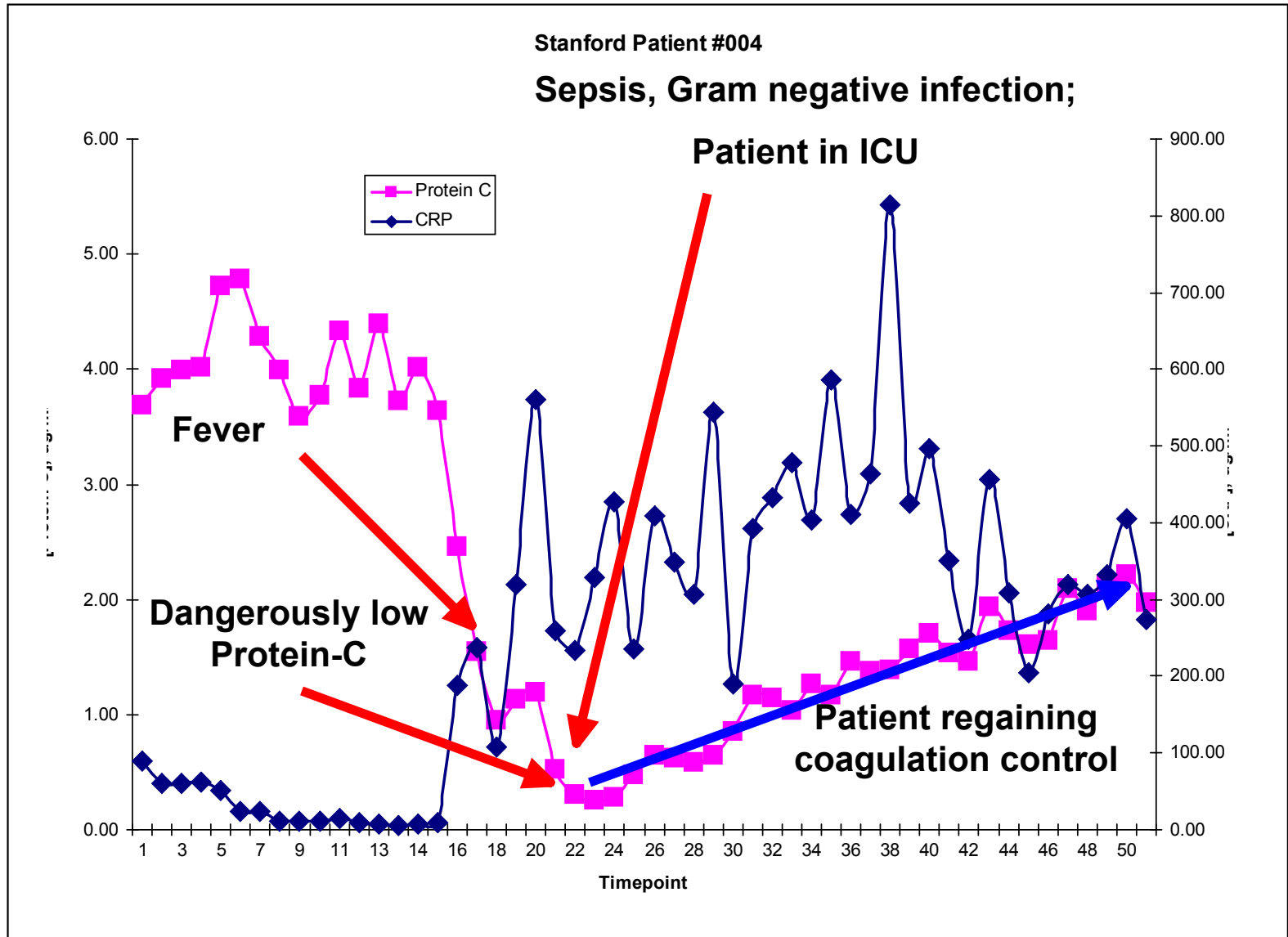


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Monitoring therapy in real time

Stanford sepsis study: Blood samples

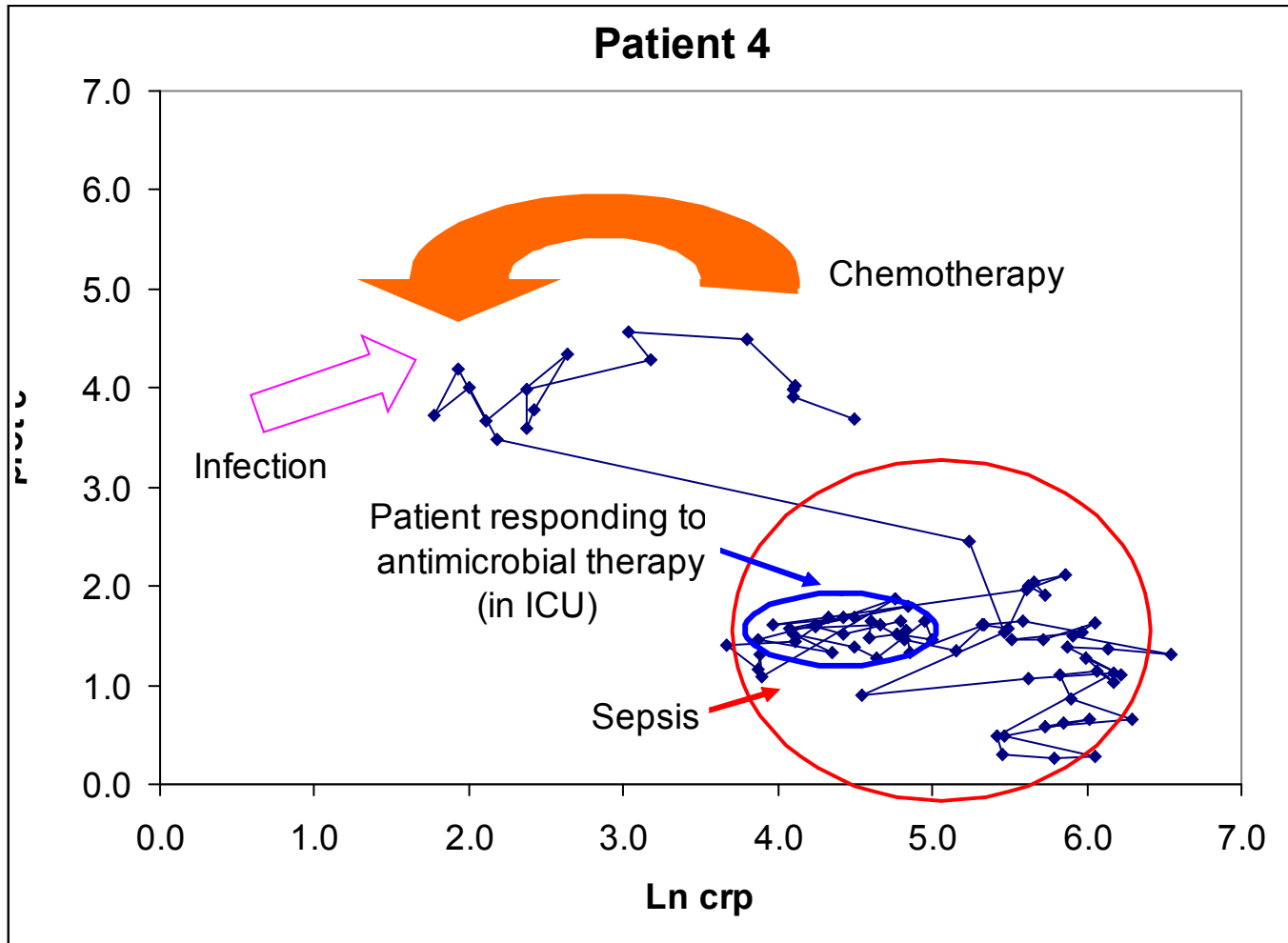


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Multiple assays following disease and therapy

Trajectory to sepsis

Data connected by time



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Conclusions

- Performance design goals have been demonstrated.
- The system is now in clinical evaluation at several sites.
- Results have been excellent.
- Scale-up, GMP documentation and 510k submissions are in hand.