

## Theranos, Inc.

- Our immediate goal is to become the standard for improving the efficacy and risk/benefit and safety profile of every therapy.
- Initial Market: Phase IV Clinical trials
- Product Platform:
  - System: Cartridges, Readers, Informatics Service
- Founded 2003
- Menlo Park, CA
- 50 Employees

## Theranos Today

- 6 Deals, 5 companies: \$6-12M for validation phase
- 6 Phase IVs: \$20-\$50M each
- \$120 - \$300M revenue in next 1.5 years
- 10 companies and 1 government agency: 15 additional deals
- \$21-52M for validation
- \$300-\$750M for phase IVs
- Existing deals: \$120M - \$1.5Bn in revenue
  
- Improve label, validate efficacy and preempt liabilities

## Management

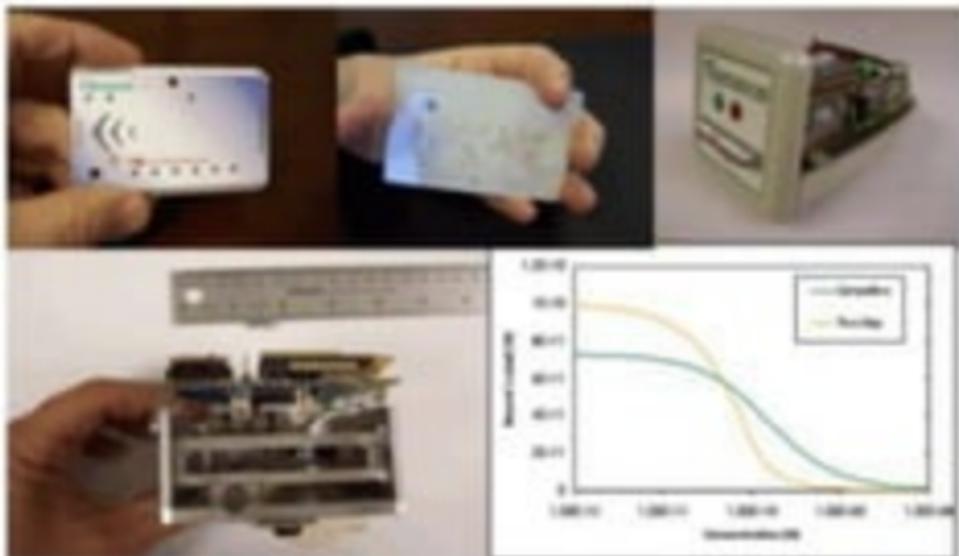
- Elizabeth Holmes, President and CEO
  - Left Stanford Chemical and Electrical Engineering to found Theranos, also Genencor, Genome Institute Singapore
- Howard Bailey, CFO
  - Former CFO who took QED and Photon Dynamics public, also CFO Occam, C-Cube, and Controller, Intel
- Diane Parks, COO
  - Former Senior Vice President, Biotherapeutics and Managed Care, Genentech, also Vice President, Marketing, Aventis
- John Howard, Senior VP, Products
  - Former President, Panasonic Semiconductor, also President, IBM Microelectronics Division
- Dr. Ian Gibbons, Senior Director Assay Development
  - Former Senior Director, Syva, ACLARA, Biotrack, AmCell, First Medical
- Tim Kemp, Senior Director Informatics Systems
  - Former lead systems engineer, IBM, Embedded Systems

### Board of Directors:

- Donald L. Lucas, Chairman of the Board
  - 40-year veteran of the venture capital business
- Elizabeth Holmes
  - CEO, Theranos
- Peter Thomas
  - Founder and Managing Director, ATA Ventures, General Partner, Institutional Venture Partners
- Channing Robertson
  - Stanford Senior Associate Dean of Engineering

# Theranos

What is our system?



[www.theranos.com](http://www.theranos.com)

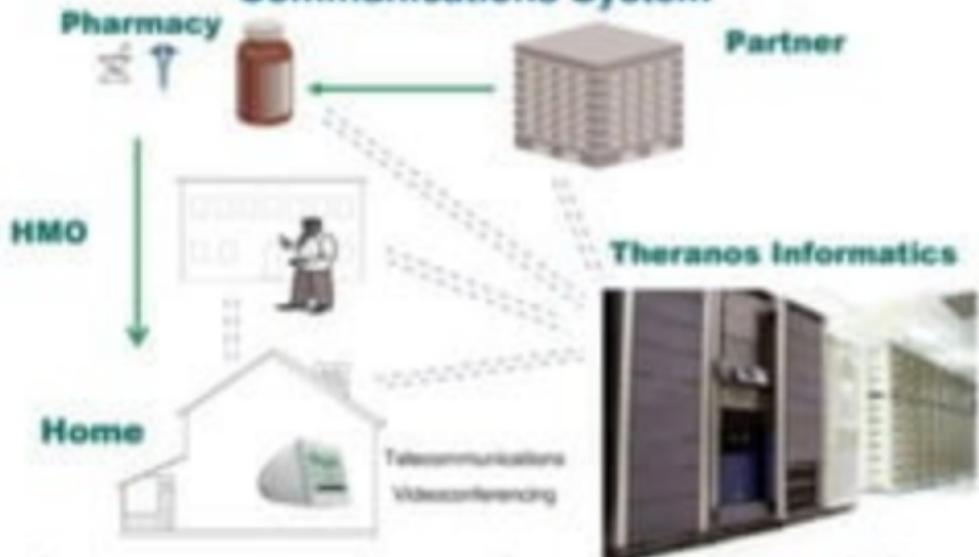
# Theranos<sup>®</sup> Technology

## Theranos Products



# Theranos

## Theranos ABCS™: Ambulatory Bioinformatics Communications System



Effective narrow range therapy through post-prescription monitoring of the total available patient base.

# Theranos<sup>®</sup>

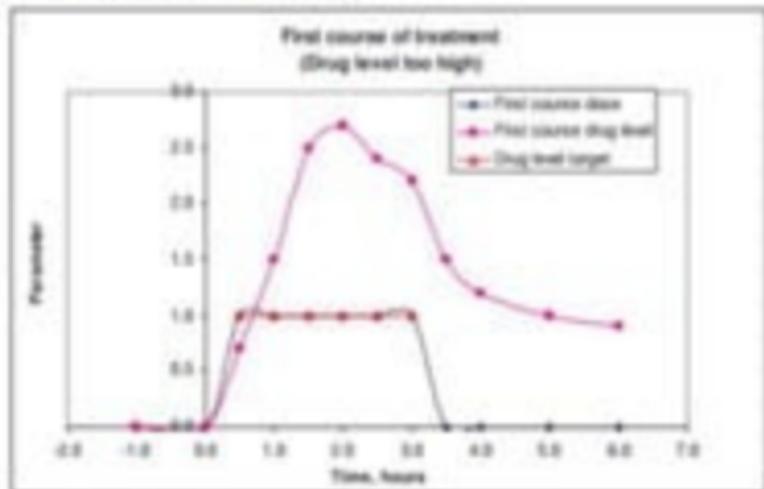
## Product Features

- **Use:** Simultaneous quantitative measurement of drugs and treatment-related biomarkers
- **Sample Size:** 5-10 $\mu$ L of blood
- **Time:** Multiplex assays complete in < 30 minutes
- **Calibration/Control:** On board with each measurement
- **Operating Principle:** Chemiluminescent/Immunoassay
- **Dynamic Range:** Low picogram/mL – high microgram/mL
- **Accuracy:** Results comparable to "gold standards"
- **Precision:** Average total 5-7% Coefficient of Variation or better
- **Data Reporting:** Immediate upload from secured server
- **Attractiveness:** New assays can be developed and implemented within about three months and can be fully developed at ISO 9000 standards within about six months.

## Value Proposition

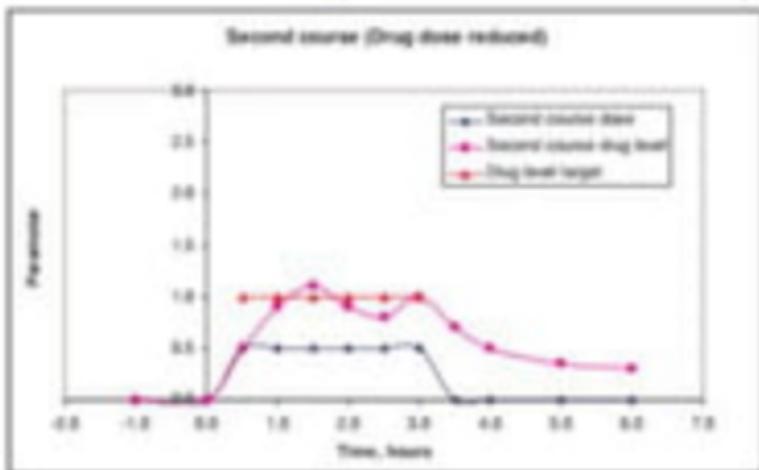
- Increase pharmaceutical sales by improving the label of a compound
  - Remove black boxes
  - Safely sell to total available patient base
  - Introduce existing compounds to market (rather than relying heavily on gene sequencing and new discoveries)
  - Increase the number of patients enrolling in trials and reduce drop-outs
  - Increase compliance

## First course of infusion chemotherapy with Theranos monitoring



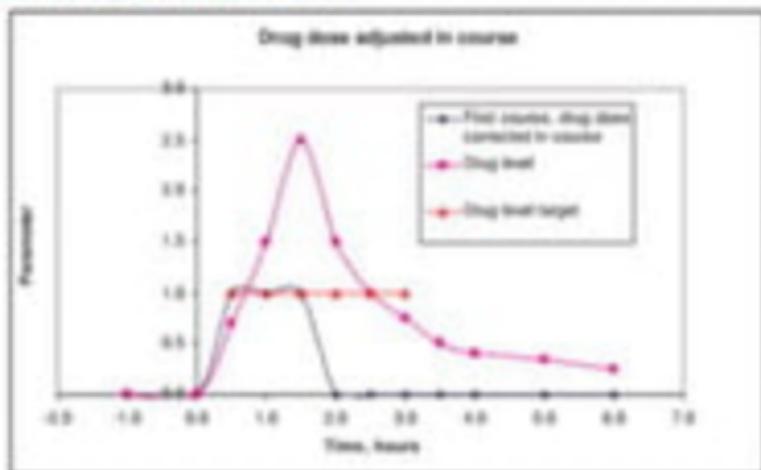
Standard dose rate; patient is not eliminating drug rapidly and drug concentration increases over the target level to a toxic level.

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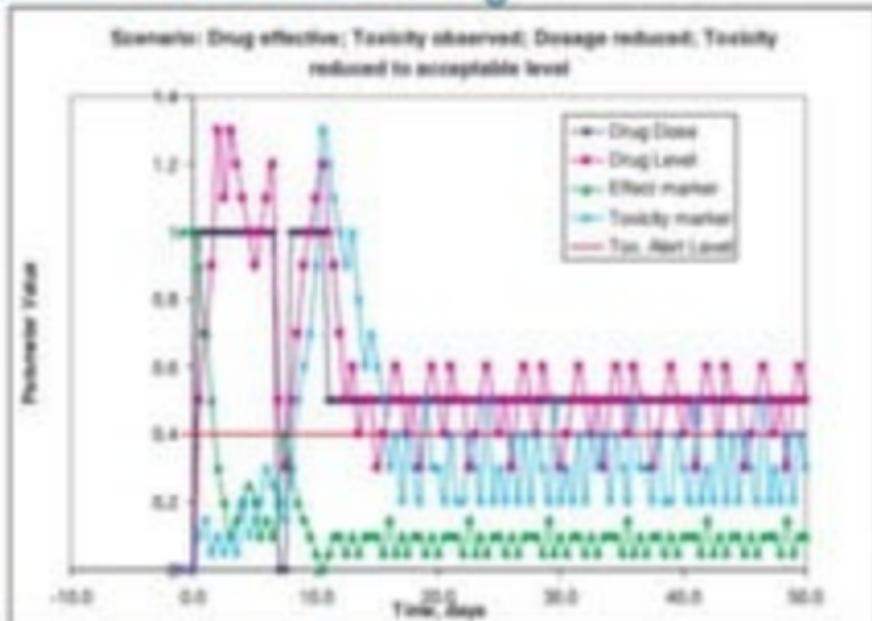
Same patient, second course of therapy; dose is lowered based on Theranos results >> drug level is at target.

## Dose Customization



Same patient but in the first course rapid (within one hour) feedback from Theranos monitor leads to a decision to stop the infusion. Drug level drops from toxic to target.

## Real-time PK/PD Monitoring



## Total Available Market: Phase IV Clinical Trials

- Phase IV Clinical Market = \$39 Billion per year
- Number of ongoing trials per year = 600 to 800
- Average Theranos Revenue per trial = \$50M
- \$7,500 "Information Fee" per patient for every four months
- Average: 2,000 to 10,000 patients per trial

## Total Available Market: Pharmaceutical preclinical market

- Pre-clinical Market = \$10 billion per year
  - \$5M annual revenue per research group
  - 133 groups per pharmaceutical company
  - 15 companies of this size

Note: These numbers exclude sales to one of the largest preclinical market segments: academic institutions.

## Theranos Value Proposition

### Revenue:

- Information fee includes use of
  - Readers
  - Cartridges
  - ABCS informatics, patient diary and data integration service
- 70% margins
- Requisite solution for improving labels or preempting liabilities
- Cost to pharmaceutical companies is 20-30% less than current costs of equivalent testing through clinicians office

## Pains In The Existing Marketplace

- Adverse Drug Reactions reduce sales and keep some drugs off the market
- Pharmacogenomic tests (diagnostics) do not eliminate adverse drug reactions
  - And screen some patients who could safely benefit from a drug
- No mechanism to measure the effect of environmental factors on drug efficacy
- No continuous monitoring to determine the correct dosage
- Current testing procedures too expensive or impossible for some drugs

## Theranos Solution

- Monitoring can take place anywhere and can be done by anyone
- Monitoring can be as frequent as needed with little increase in cost
- Results compare to / beat those obtained by a blood lab
- Results are available in minutes
- Warning to doctor can be sent within minutes of a test
- Effectiveness of dose can be monitored in real time
- Drug-drug combinations can be monitored to improve the label
- Drugs can be prescribed with monitoring devices to prevent ADRs
- Instant analysis and availability of related data improve speed and effectiveness of trials
- Consumer WWW increases value of therapy: Informs patients, drives compliance and increases patient adherence to given drug

# Theranos<sup>®</sup>

## Drivers for Success

- › First mover advantage
- › Combination of several different technologies makes reproducing the solution difficult
- › Innovation Pipeline: Next generation systems
- › Strong Customer Base
- › Speed to Market and Focus on Quality
- › Patents
- › Management and Culture

## Lead investor profiles:

## • Series A

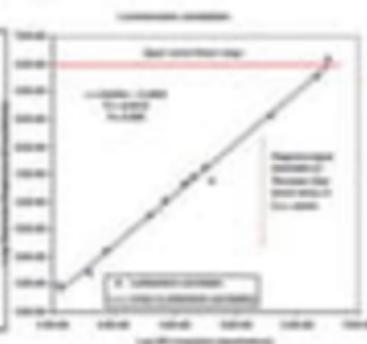
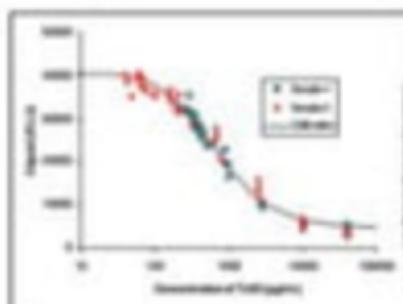
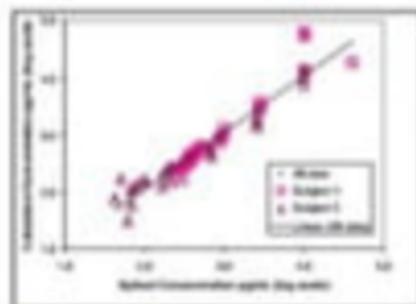
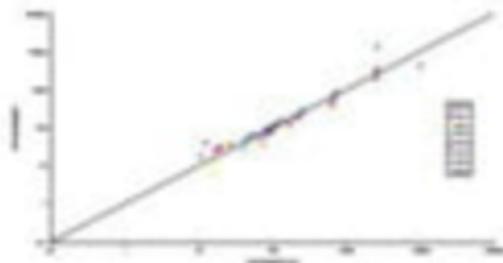
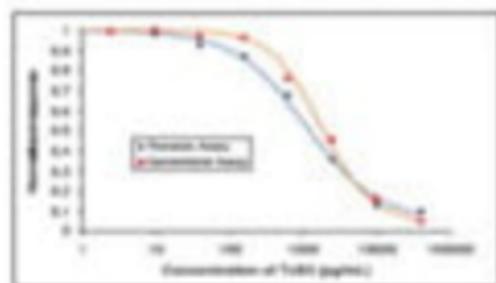
- Chang, Escom Taipei: Multi-billion dollar distribution group; leading distributors of high technology devices in Asia with headquarters in China and in Taiwan.
- Continental Properties Company: Fund lead by John Schweitzer and Stephen Feinberg, director of MD Anderson, leading center in innovative cancer treatment, cutting-edge research and clinical trials.
- Draper Fisher Jurvetson: Draper Fisher Jurvetson is a global network of affiliated venture funds with over \$3 billion in capital commitments and offices in the major technology centers around the world.
- Jupiter Partners: Fund lead by John Bryan, limited partner in numerous venture capital and private equity funds and leading investor in companies ranging from Amgen to Hewlett Packard.
- Palmieri Trust: Fund lead by Victor Palmieri, business takeover financier; director of numerous high growth companies including Phillips Petroleum, the Pennsylvania Company, Arvida Corporation, Outlet Communications, the William Carter Company, Broadcasting Partners, and Mullin Consulting and a Trustee of The Rockefeller Foundation.

## • Series B

- Donald L. Lucas fund: Premier Silicon Valley venture capital veteran (note biography in board profile document)
- ATA Ventures (Early Stage Venture Capital)
- Larry Ellison, Tako Ventures
- Dixon Doll (Doll Capital Management)
- Ray Bingham, BJ Cassin, other private equity investors

# Theranos<sup>®</sup>

## Technology: Theranos System versus Today's Lab

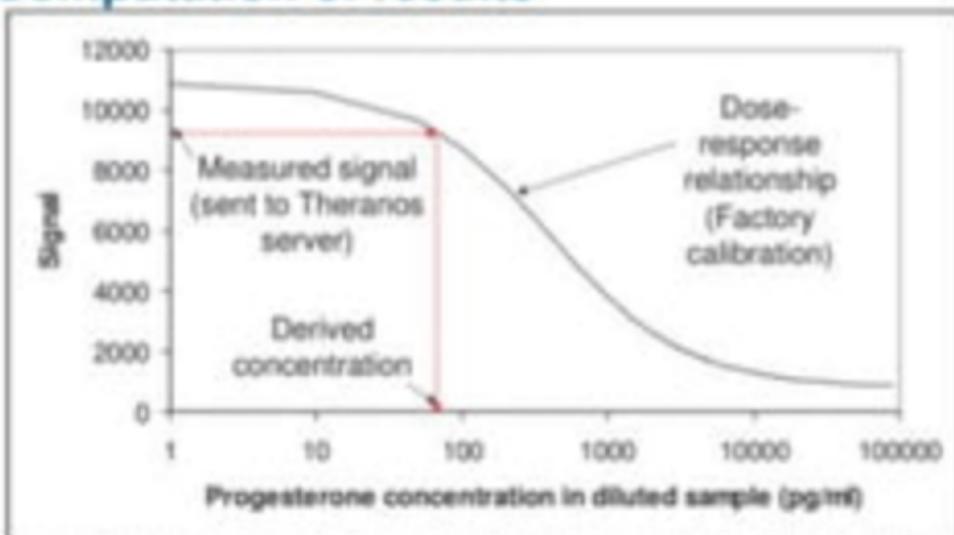


On chip microfluidics enables greater sensitivity than the clinical lab

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## Computation of results



Concentration in sample = Signal >> Derived conc. \* Dilution factor (fixed)

Computation performed at Theranos server

Chemistry is calibrated through Theranos server by comparing results on cartridge to known results for calibration wells in database so as to preempt use of environmentally deteriorated cartridges



A Presentation For Investors

June 1, 2006



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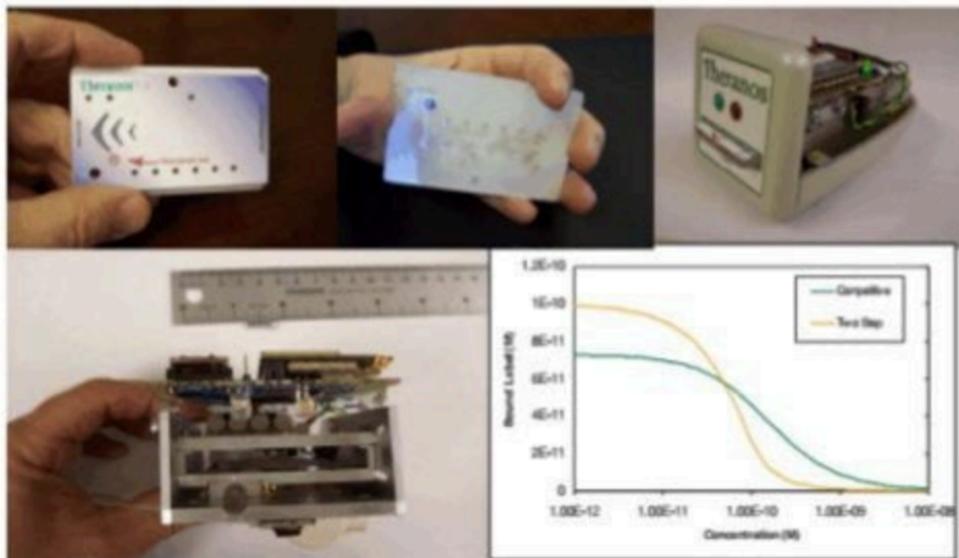
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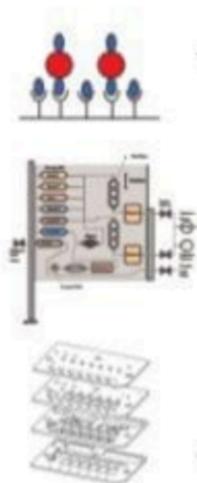
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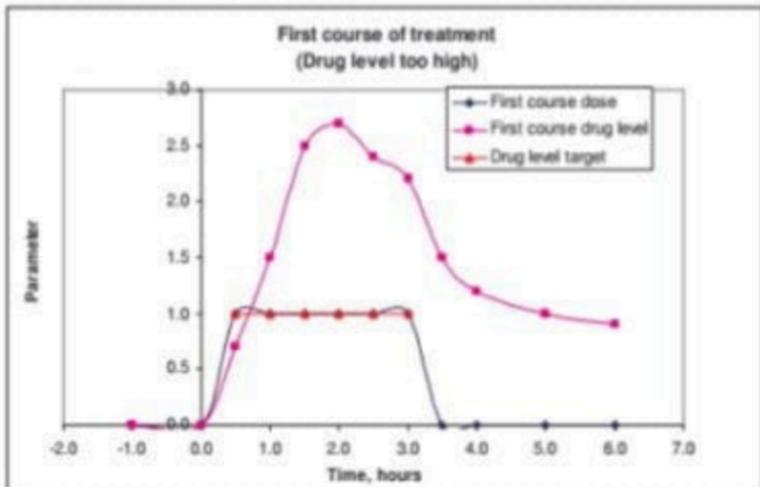
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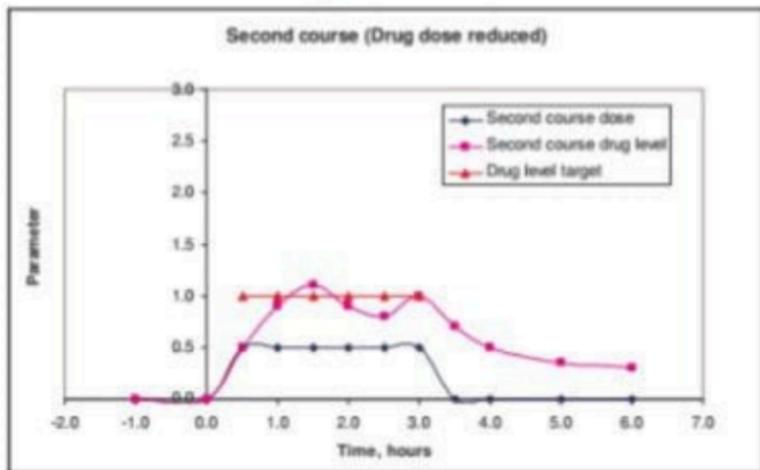
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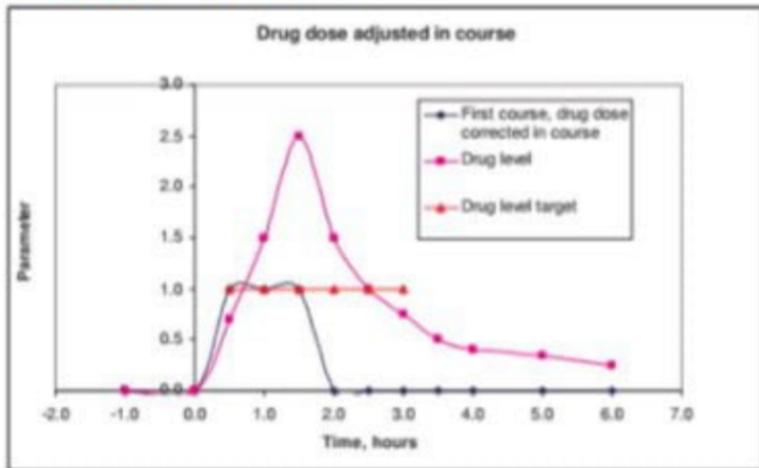
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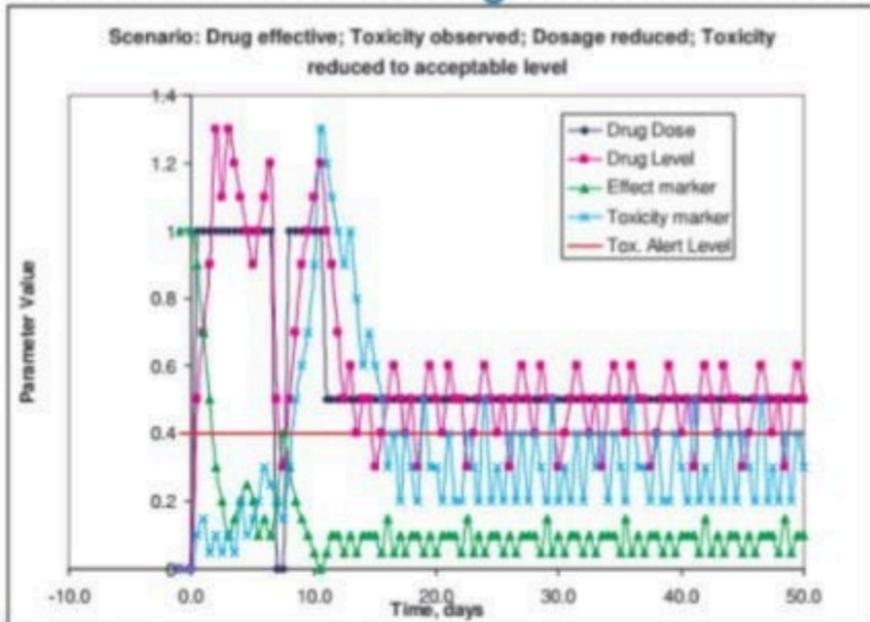
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