

To: chris@bdventures.com[chris@bdventures.com]
From: Elizabeth Holmes
Sent: Thur 12/22/2005 3:49:38 PM
Importance: Normal
Subject: RE: Great to meet you!!!
Received: Thur 12/22/2005 3:49:00 PM
[The Theranos Industry Q4-05 PPT.pdf](#)
[Theranos Inc. Offering Memorandum 11-05.pdf](#)
[Appendix Financials A.xls.pdf](#)
[Appendix B2_CY2006 Forecast Revenue.xls.pdf](#)
[Appendix B1_CY2006 Forecast.xls.pdf](#)
[Appendix Financials D.xls.pdf](#)
[Appendix Financials C.xls.pdf](#)

Got it! And got your voicemail. It was great to meet you as well. I have attached our PPT and a copy of a recent business plan. The information attached is of course strictly confidential. As you know, I am thrilled to get you and Don involved in Theranos as we scale and look forward to being in touch – and hopefully in person again --soon!

Elizabeth.

Elizabeth Holmes

President and CEO

Theranos, Inc.

(tel): 650.838.9292 x 111

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Menlo Park, CA 94025

www.theranos.com

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From: Christopher B. Lucas [mailto:chris@bdventures.com]
Sent: Wednesday, December 21, 2005 4:54 PM
To: Elizabeth Holmes
Subject: FW: Great to meet you!!!

From: Christopher B. Lucas [mailto:chris@bdventures.com]
Sent: Friday, December 16, 2005 5:15 PM
To: 'eholmes@theranos.com'
Subject: Great to meet you!!!

Elizabeth,

I really enjoyed meeting you and learning about your company. You are clearly addressing a large market that needs your help. Please email me any information you feel comfortable in sending. Your PPT would be helpful, if you do leave that behind when you meet with people.

I know that Don is very excited about your future and sees how we can help make your company a huge success. Thanks for spending your time with me and I will help any way that I can.

HOLMES0018782

I listened to your interview that's posted on your website. You have a very engaging informative style which helped me further understand your mission.

Congratulations on your great progress!

Regards,

Chris

Christopher B. Lucas

Managing Director

Black Diamond Ventures, LLC

450 North Brand Boulevard, Suite 600

Glendale, California 91203

T: [REDACTED]

F: [REDACTED]



TheranosTM

Redefining Healthcare

December 22, 2005

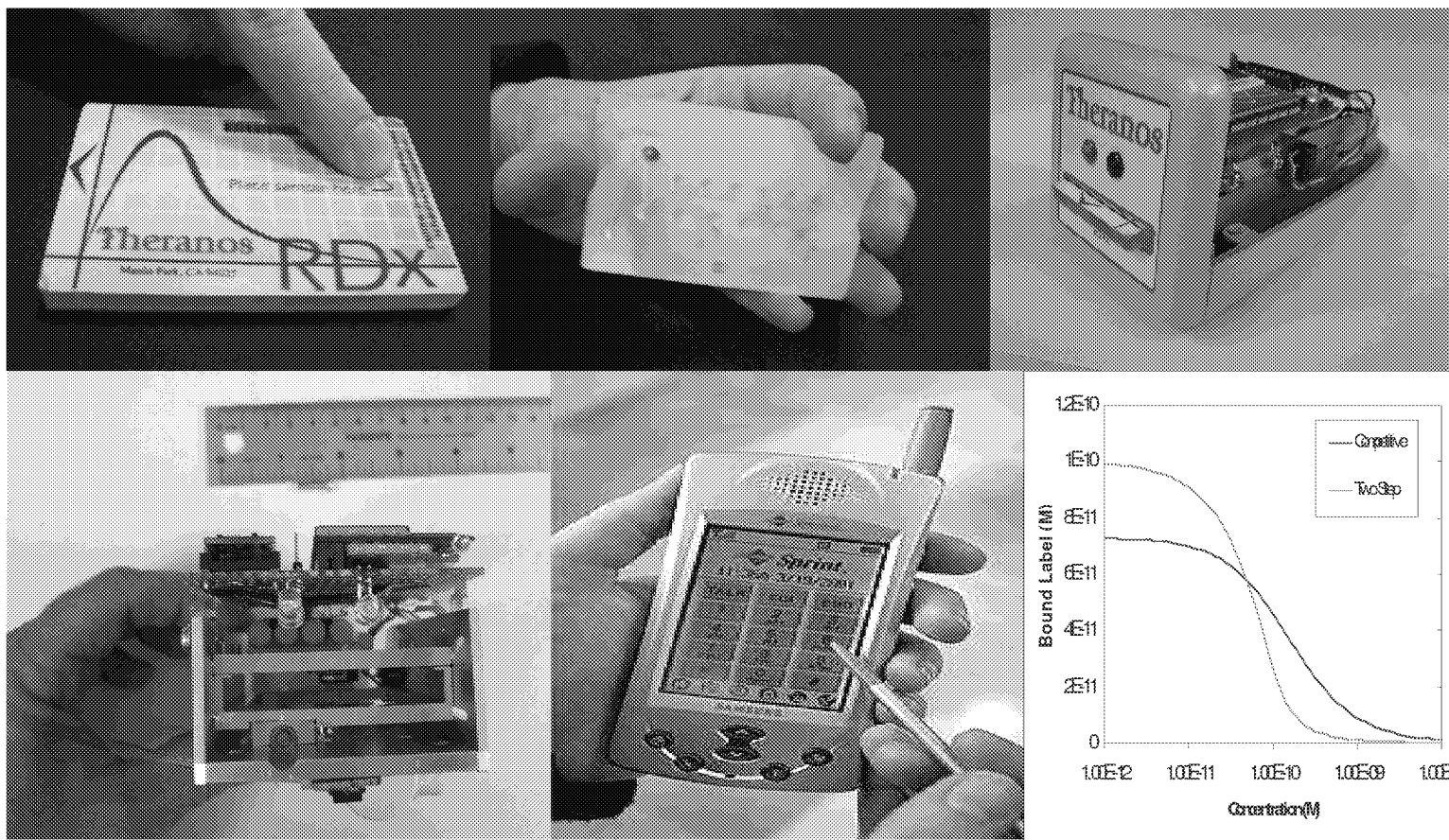


The Company

- ❖ The Team
 - Management
 - Investors
 - Board
 - Advisors
- ❖ Our IP
- ❖ Our Technology
- ❖ Regulatory
 - Critical path initiative
 - Requisite Tool for Future Approvals and Prescriptions
- ❖ Our Immediate Clients

Theranos™

Theranos 1.0: Enabling Smart Blockbuster Drugs



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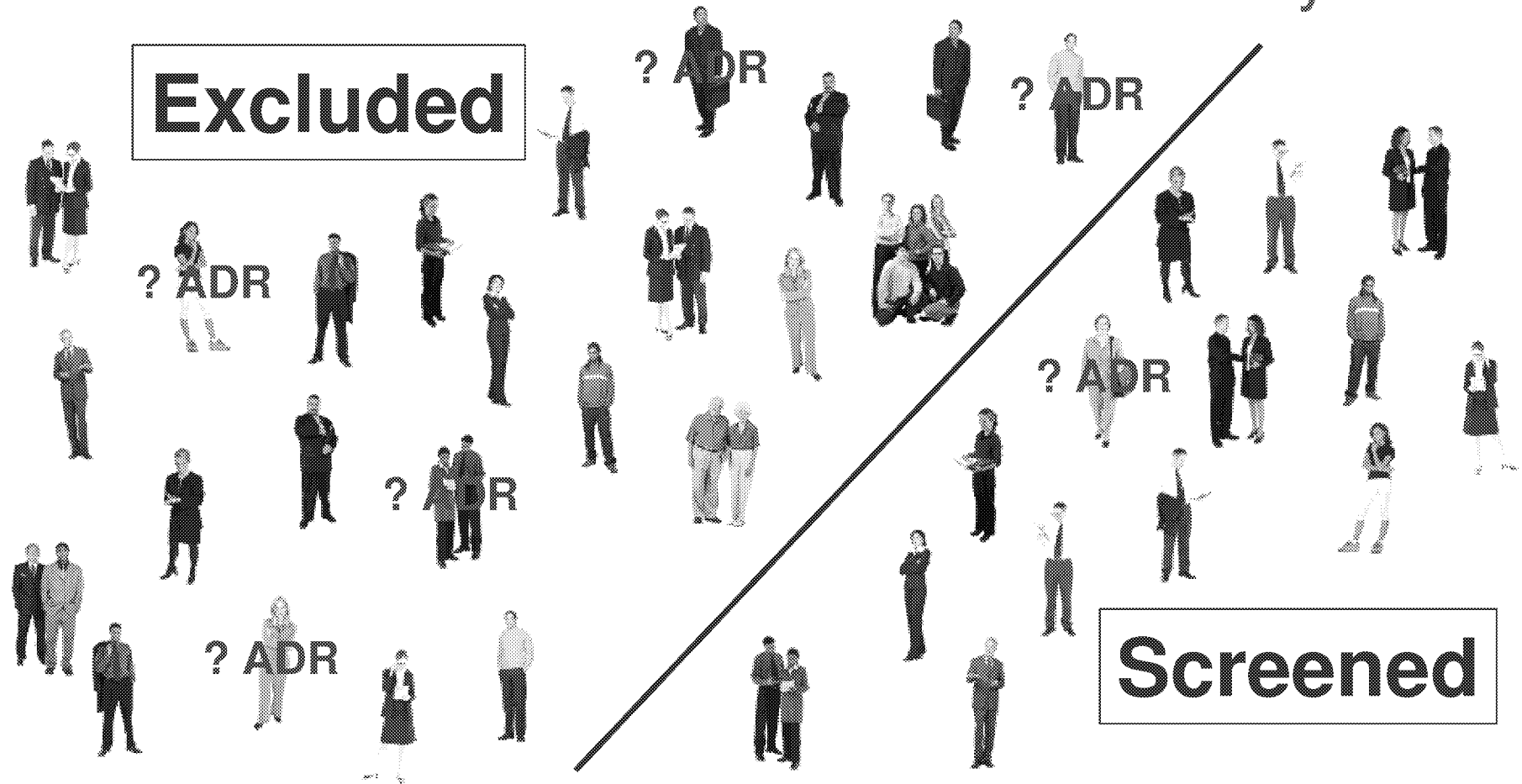
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Adverse Drug Reactions Today



Drugs prescribed generically to total available patient base.

Personalized medicine & POC Today

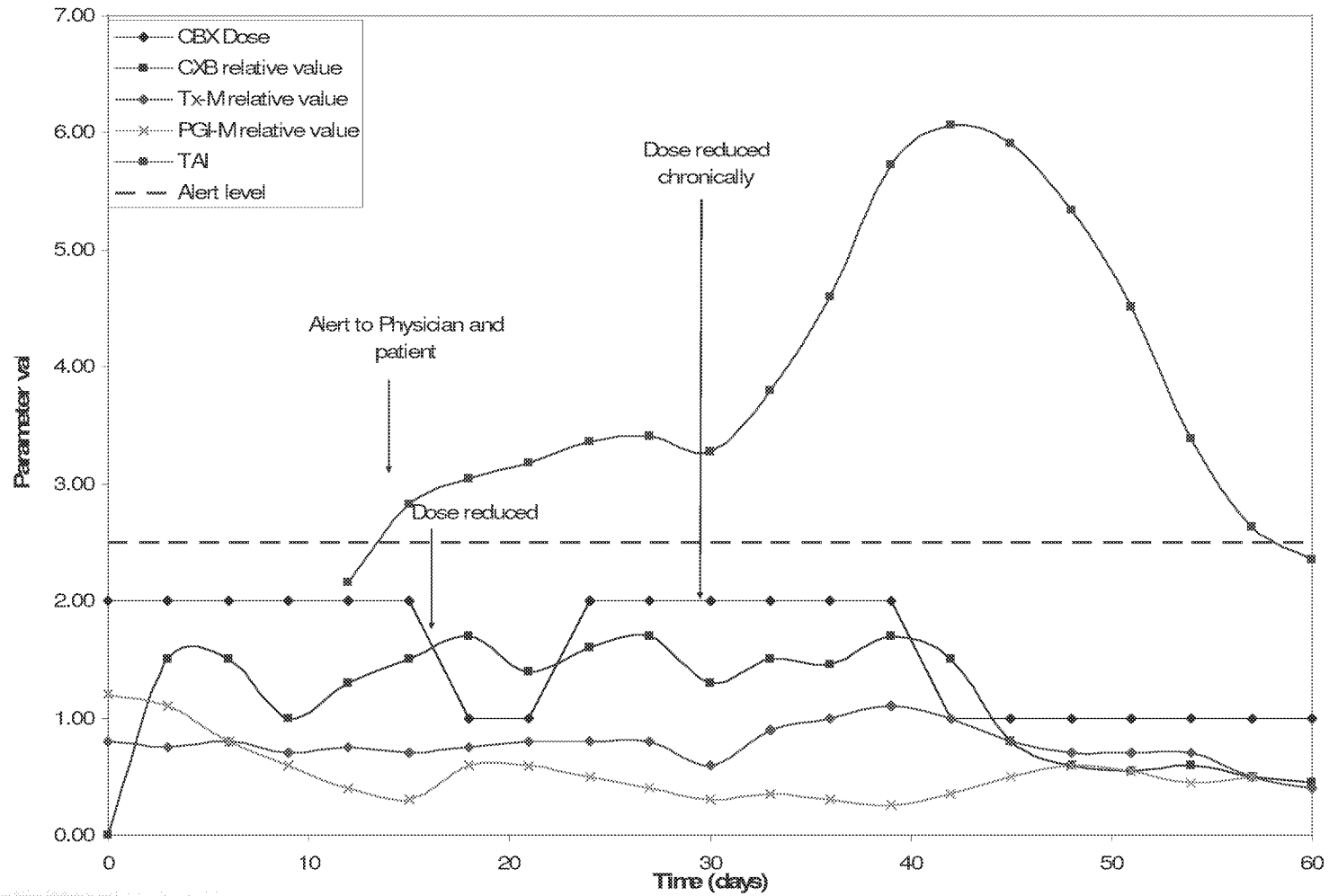


Total Available patient base for prescription reduced but risk of ADR remains.

Real-Time Informatics

Theranos monitoring, COX2IB therapy at risk patient

Total
Patient
Health



Theranos™

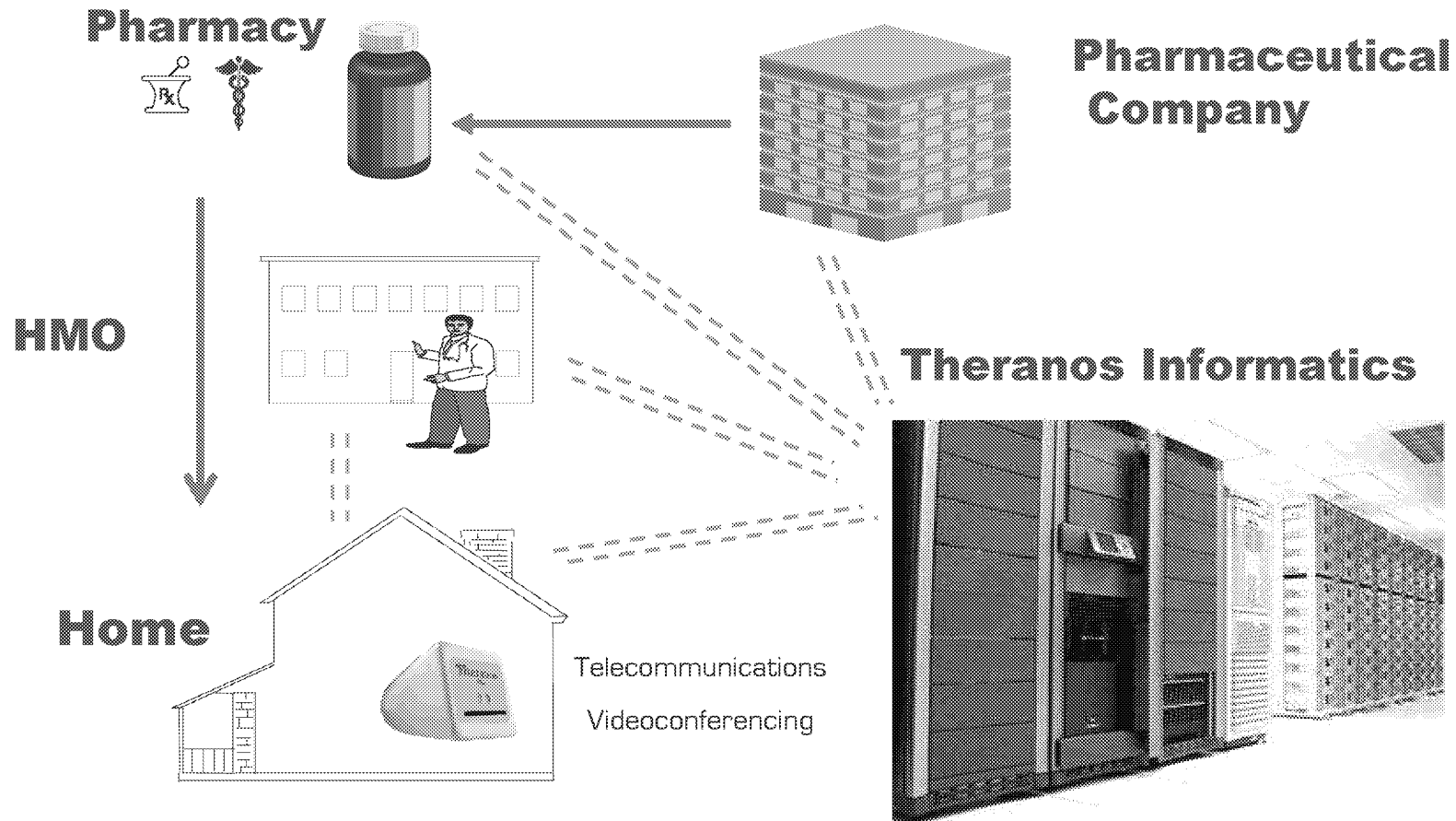
THERANOS: POST-PRESCRIPTION MONITORING



Total Available patient base for prescription restored AND risk of ADR eliminated with Theranos 1.0 handheld monitors.



Theranos ABCP™: Ambulatory Bioinformatics Communications Protocol



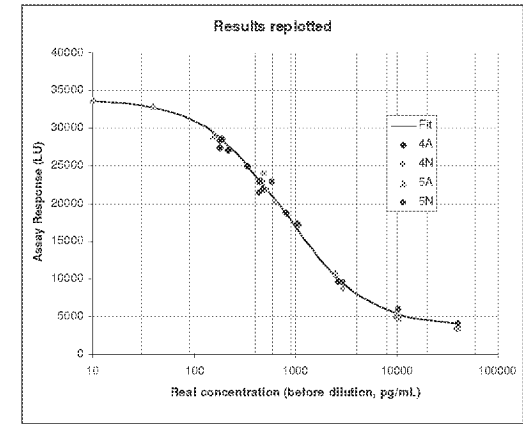
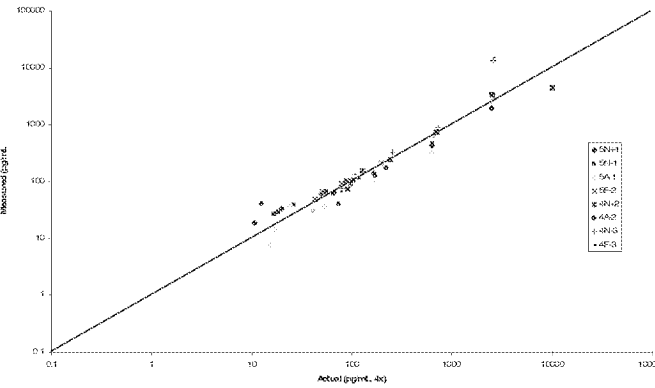
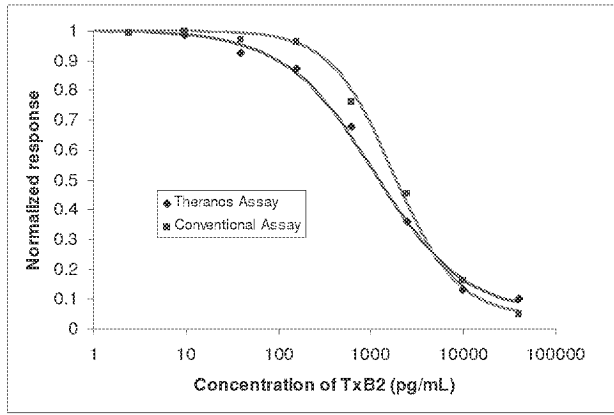
Effective narrow range therapy through post-prescription monitoring of the total available patient base.



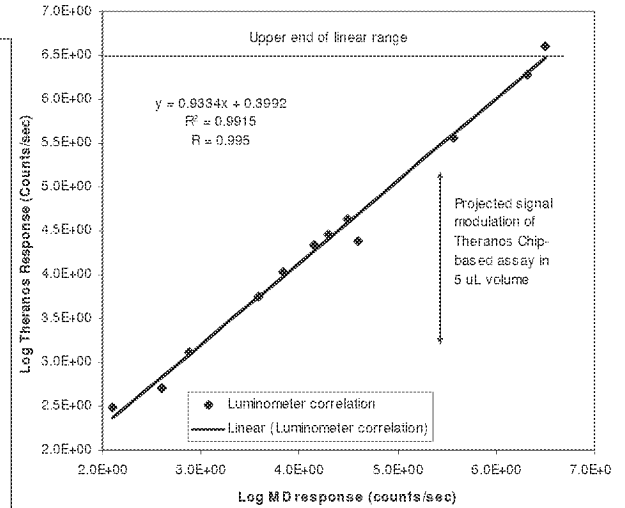
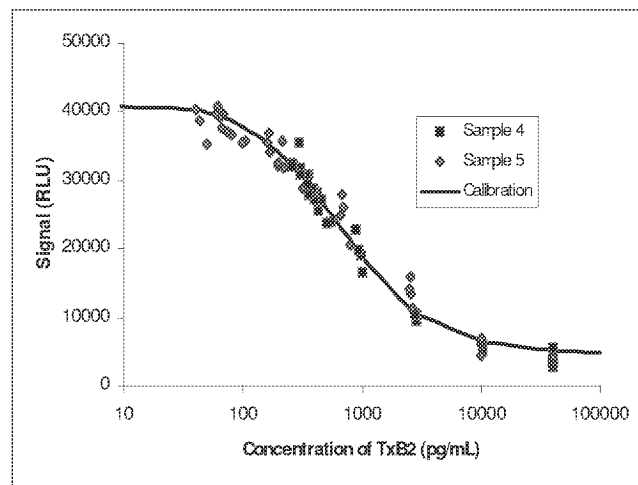
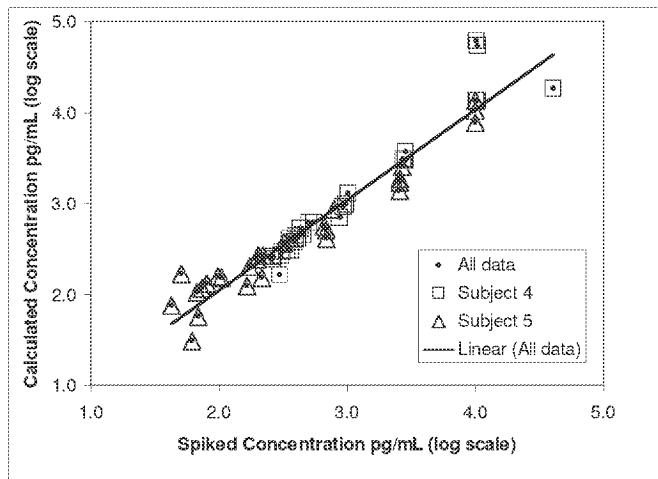
Technology Firsts and The Future of Personalized Medicine

- ❖ Blood chemistry system
- ❖ Fully integrated finger prick
- ❖ An integrated blood sample port
- ❖ Industrial Design Interface
- ❖ Telecommunications and video-communications with clinic, peer groups, and other relevant parties
- ❖ Real-time Bioinformatics analysis of data and profiling on an individual's cell phone or PDA
- ❖ Web interface for patient, physician, and pharmaceutical company
- ❖ Synchronizing clinical data and each patient record with data generated at home to provide total health status of an individual
- ❖ Testing patients in the home rather than the clinic
- ❖ Generating biomarker data indicative of drug efficacy or new targets for novel pharmaceutical compounds

Theranos System versus Today's Lab

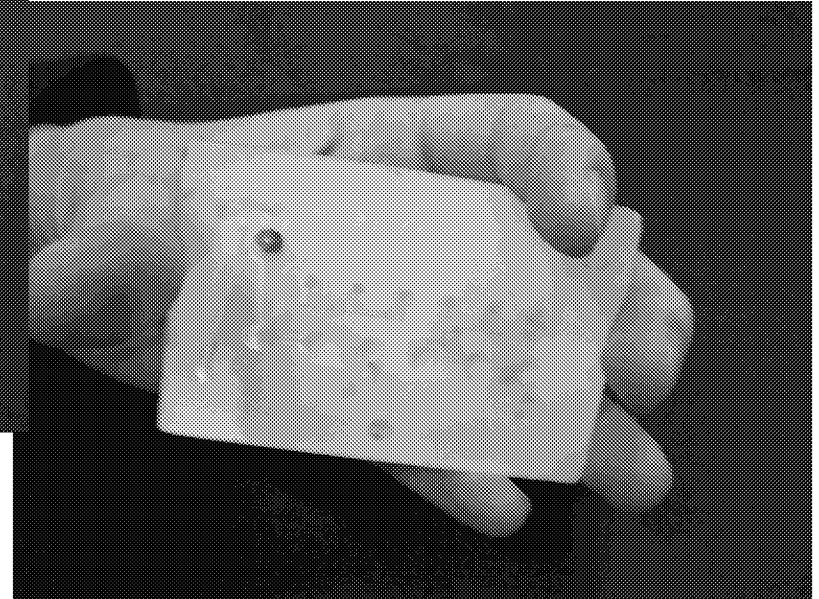
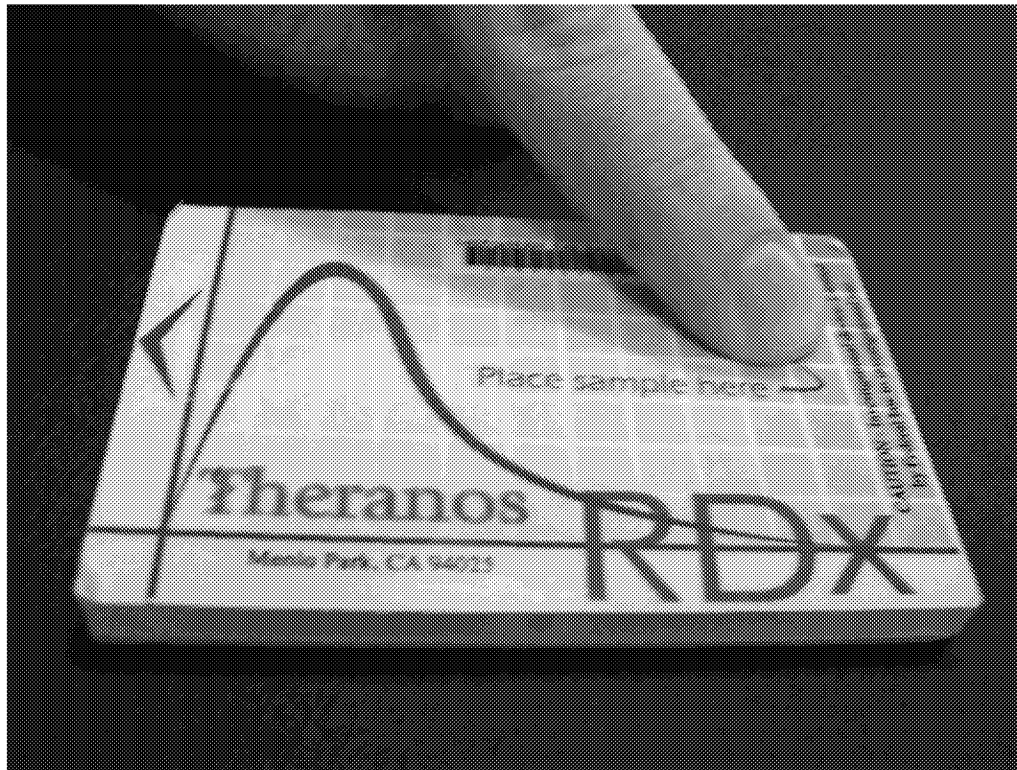


Luminometer correlation



Theranos™

Disposable Cartridge

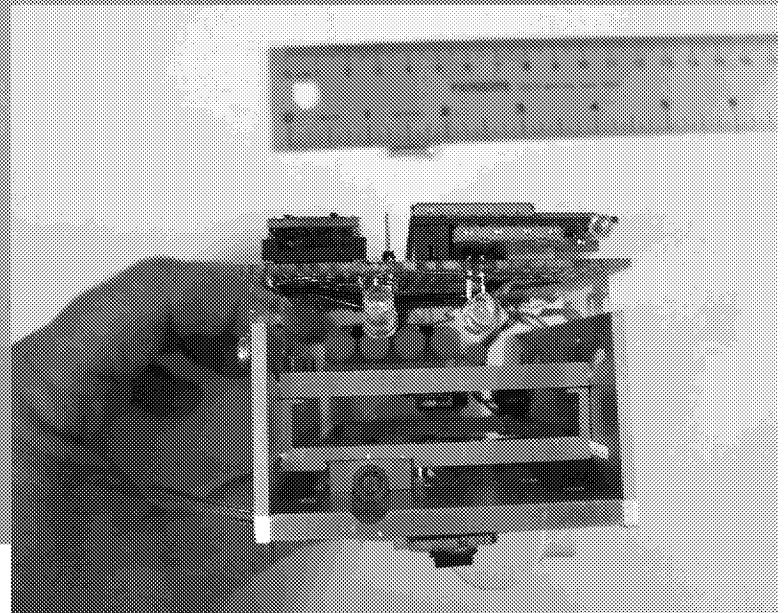
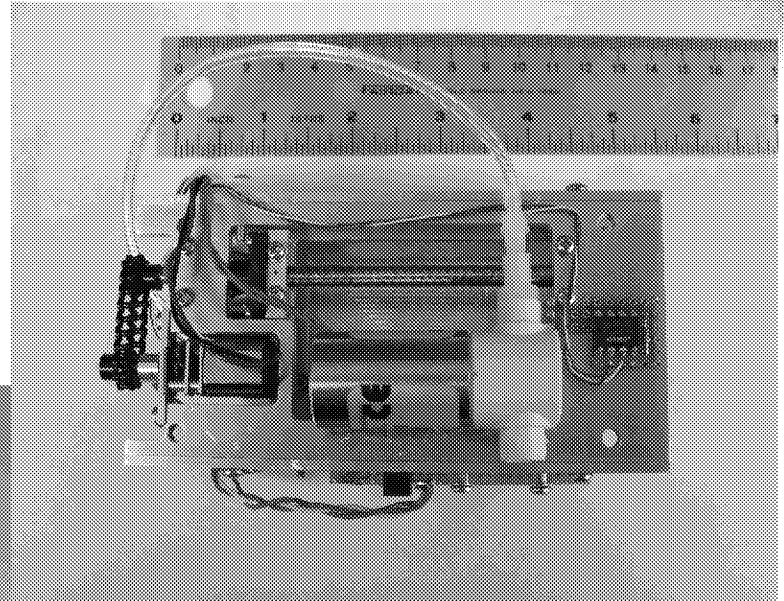
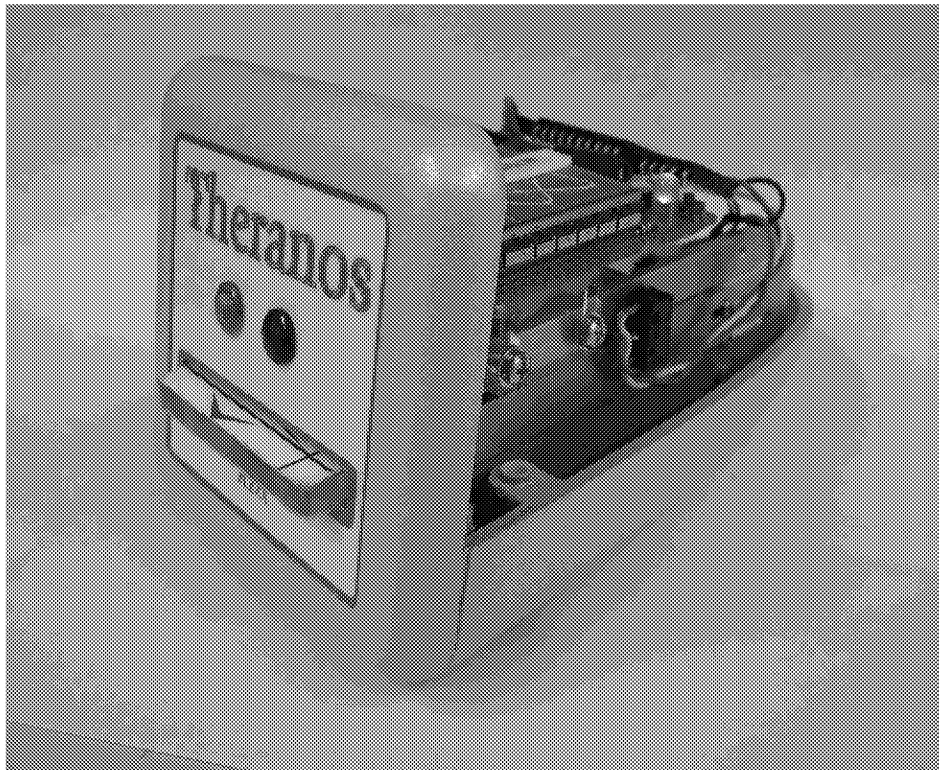


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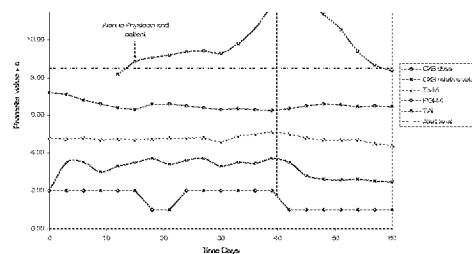
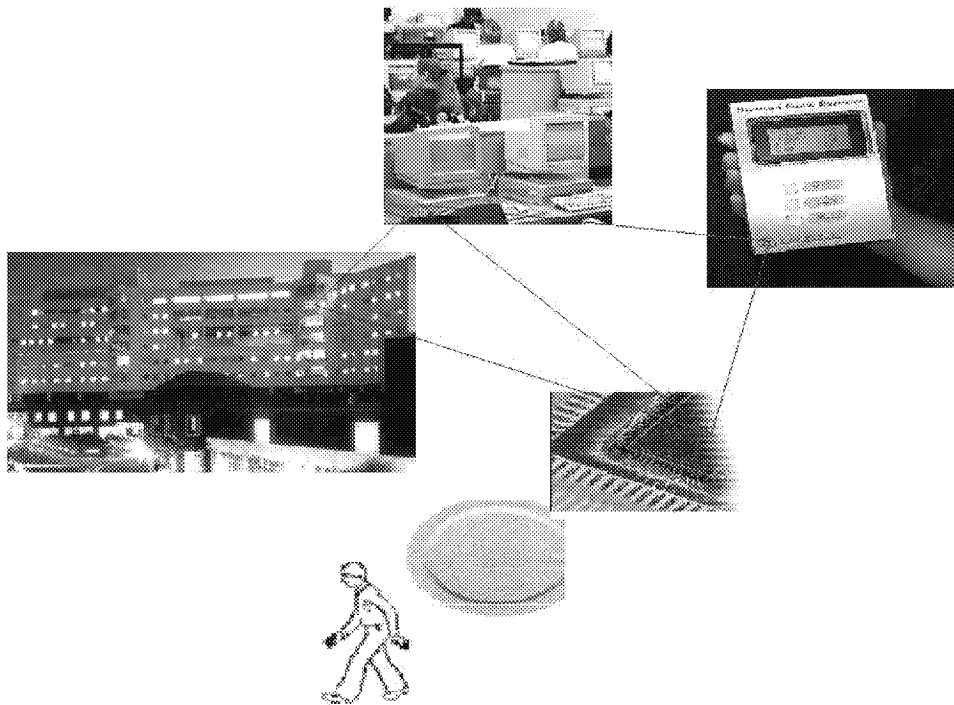
Theranos 1.0



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Centralizing Data Transmission



Platform Informatics

- Algorithms
 - Regression analysis
 - Inference rules
 - Data Mining
 - Sequencing ...

HL7 Compliance

HIPPA Compliance

SEARCH INTERFACE

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The Theranos Business Model

- ❖ Drug Delivery Solution
 - Pharma's needs for real time tracking of drug's efficacy and safety
 - FDA/CDER/ODS' needs for accurate safety reporting
- ❖ Revenue based on studies/headcount
 - Non-exclusivity or limited exclusivity relationships
- ❖ Partner or co-promotion paradigm for marketing
 - Verified investigator networks
 - Access to opinion leaders
- ❖ Contract manufacturing



The Theranos Industry

❖ Current Status:

▪ 2005: Product Developed

- Reader: Version 1.0 complete and being produced by our global EMS partner
- Cartridge: Analyte panels evaluated vs 96-well plates
- ABCS: HIPAA compliance, algorithms, transmission to and from server.

▪ 2005: Customer Relations

- Advanced product-specific negotiations with several large Pharma for initial investigational use.
- Advanced indication-specific negotiations with several others for investigational use.



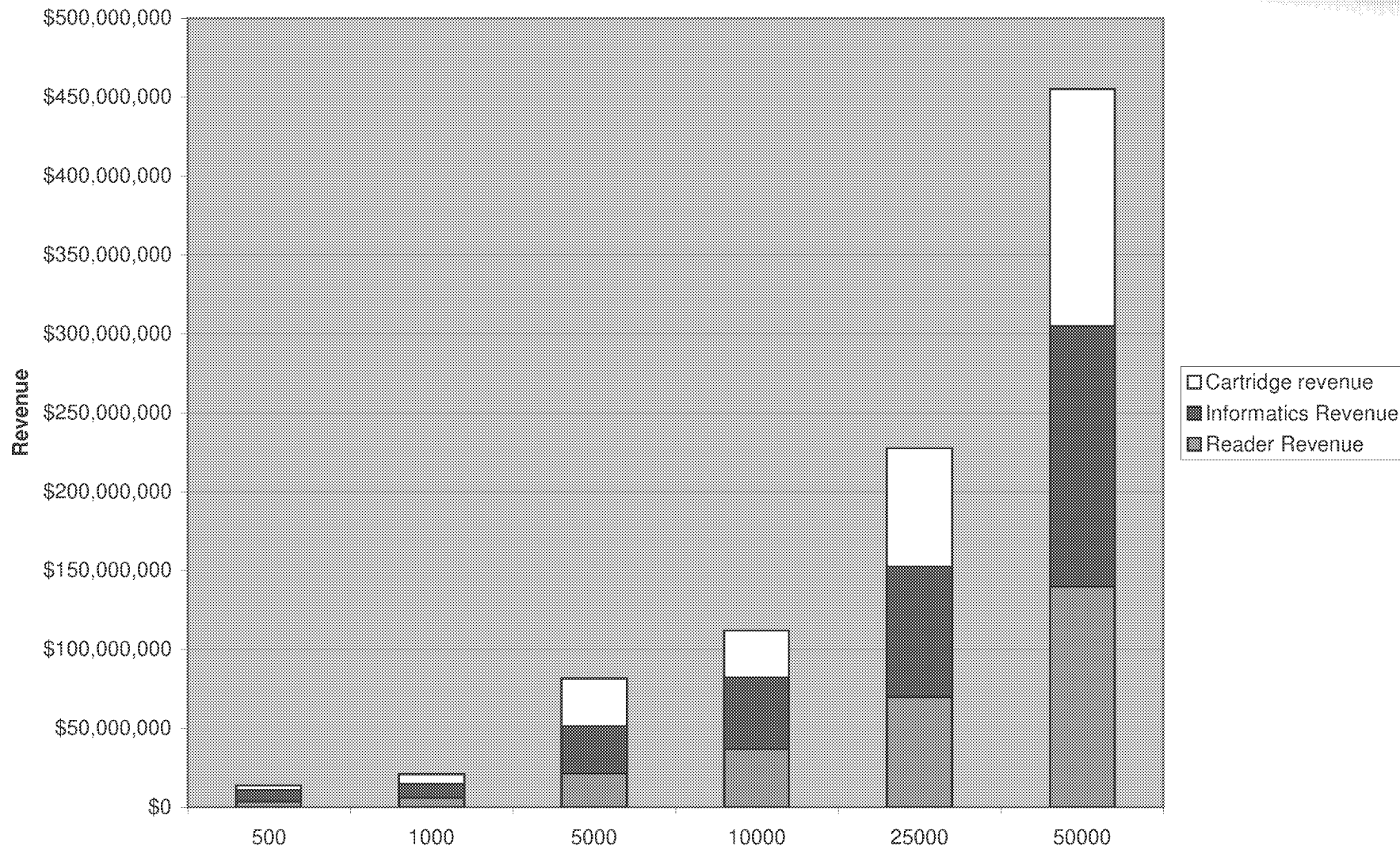
Revenue projections

Revenue:

- ❖ Pharmaceutical Clients
 - Contracts average \$50M per Phase IV per Pharmaceutical Client Per Year
- ❖ Sale of
 - Readers
 - Cartridges
 - ABCS monthly subscription fees
- ❖ 70% margins
- ❖ Hundreds of thousands of patients
- ❖ Drug development and prescription requisite solutions



Revenue Based on Reader Sales



Assume 1.5% Market Share in Phase IV trials at 5,000-10,000 patients per study initiated by 12/06 and underway by 12/07

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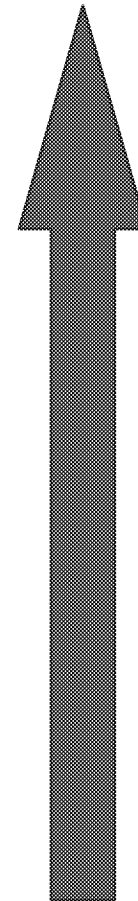
Financing

- ❖ Offering: \$15-20M
- ❖ Facilitate rapid scale-up on cross-industry transactions and deals.
- ❖ Build Theranos production and manufacturing infrastructure.
- ❖ Add to Theranos business development and sales force.

Appendix

Systems Adoption

PSA, CRP ...
Generics, Leptin, Lactic Acid
Antidepressant, Neuroanalytes
Statin, Liver function
HIV AIDS
Schizophrenia, Onset of hypoglycemia
Oncology, Liver and renal function
Cytotoxic, Onset of anaphylaxis
Sepsis Treatment, Activated Protein C
CNS, CU, MT



Reimbursement

OTC

General Health

Critical Care

- Drug Differentiation
- Metabolite Toxicity
- Drug-drug Interactions
- Combination Therapies



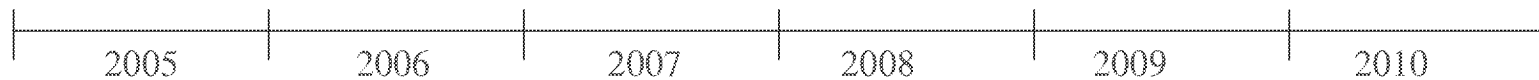
The Theranos Industry (Cont'd)

- ❖ Stage I: Acceptance by Pharma
 - 2006: Begin Clinical Trials across pharma pipelines
 - 2007: Begin Phase IV trials
 - 2008: Introduction of Drug – System combination to market
- ❖ Stage II: Acceptance in Clinics/Hospitals
 - 2008: Point of Care Applications; Disease Detection; Hormone Monitoring; Outsourcing of Tests from HMOs
- ❖ Stage III: Acceptance in Homes
- ❖ Stage IV: New Technology - Patch Products



Theranos Product Pipeline

Theranos 0.5 5-10ul 1 assay
Theranos 1.0 5-10ul, 3 assays
Theranos 2.0 0.3-1ul, 6 assays <i>Over The Counter Sales</i>
Theranos 3.0 0.3ul 10 assays
Theranos 4.00.3 ul 100 assays
Theranos 5.00.3 ul, >1000 assays Incremental Reader engineering, cost and size reductions, increasing number of assays
Theranos ID:ResearchDevelopment.....Productize... Innovation Division: Nanowires, Nanotubes, electrochemistry, integrated sensor arrays (~ 5000 assay panels)



Assay Sensitivity: On-Cartridge Blood Processing and Direct Sensing

- ❖ Red Blood Cell and Serum Separation



Theranos, Inc.

REDEFINING HEALTHCARE

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Elizabeth A. Holmes, President and CEO



Menlo Park, CA 94301

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Executive Summary

Theranos Inc. is a biomedical systems company located in Menlo Park, California. The company's point of care health monitoring systems are bringing "personalized medicine" into clinics, pharmaceutical companies, and individual's homes through *painless* blood monitoring devices customized in the form of consumer electronic handhelds which read, transmit, and profile data indicative of any aspect of an individual's health status. These profiles range from drug efficacy, patient safety, and risk of adverse reaction (in the case of drugs like Vioxx) to presence of an STD, fertility monitors, and indicators of disease progression (as in the case of HIV positive patients in need of understanding when to take antibiotics to prevent infection).

The Theranos platform marks the first consumer electronics device capable of reading a painless finger-prick sample of blood taken *in the home* and wirelessly profiling an analysis of that sample in real time on a server accessible on an individual's PDA or home computer. The system is designed to facilitate communication with the physician from the home through the Theranos server, and to automatically integrate existing information in a patient record into each reading taken at the home so as to provide a total health monitoring system, as well as a personal indicator of more specific health status, like PSA or diagnostic tests.

In its year and a half existence, the company is poised to release products, close on M&A transactions and deals of significant proportions with partners including pharmaceutical companies, chip/telecom companies (who see this as a new market application) and pharmacies, to regulatory agencies (with respect to the future of prescription medicine), third party payers (who see this as a mechanism by which they could dramatically improve compliance and reduce their costs), and clinics.

As the company is now closing deals with a series of pharmaceutical partners, the offering proceeds will facilitate rapid scaling of its production and manufacturing infrastructure by covering the non-recurring engineering costs associated with building the production lines.

The Business

Theranos, Inc. is in the business of developing individualized, smart consumer health systems to enable life.

There is currently no effective way to automate powerful blood chemistry analytical tools in a real-time manner to provide customized, individual-patient solutions for drug discovery and clinical medicine. The ability to optimize this technology to provide customized solutions to critical patient monitoring and drug administration will define the future of medicine.

The company was founded around the opportunity to integrate existing nano and bio-technologies for the enablement of real-time diagnosis and treatment of targeted diseases

and to more accurately monitor blood analytes and determine drug dosing and delivery schemes.

By interfacing microelectronics and pharmacogenomics, Theranos is developing a revolutionary approach to automated, personalized therapy. In its first applications, the company is introducing an essential method for drug development and customized therapy for the needs of individual patients.

The Theranos development pipeline revolves around painless blood monitoring devices, including patches and pills, which analyze critical bodily analytes. Using real-time feedback, any body chemistry or administered drug can be monitored to allow immediate feedback and adjustment of therapy. This represents the pinnacle of rational drug development and administration.

In the long term, Theranos plans to integrate drug delivery mechanisms within its monitoring chips to effectively close the therapeutic loop. In striving to build an industry around point-of-care therapeutics it appears the Theranos platform will first become critical to demonstrating the safety and efficacy of every new pharmaceutical compound introduced to market within an increasingly regulated environment.

With this technology, the company is progressing toward a product that can screen for, monitor, and support therapeutic administration for anything from vitamin deficiencies to emotional depression, from diabetes to cancer chemotherapy, from contraception to congestive heart failure.

In integrating a series of cutting-edge technological features into one centralized system, Theranos is not only integrating several multi-billion dollar market opportunities but is also pioneering a new industry around its nano-scale bio-electronic platforms to enable monitoring, diagnosis, and treatment of any bodily ailment in real-time.

The company is employing a focused strategy to introduce its technology pipeline to market, sequencing product release in sync with the regulatory approval process for each application of its systems to target the end markets which can most quickly adopt and commercialize the systems. Once on the market and in the consumer home, Theranos will expand its product applications to direct-to-consumer applications to enable monitoring of anything, anytime in an automated fashion.

The company is launching platform products into the following markets, and in so doing, introducing a new paradigm to healthcare:

1. Pharmaceutical Clinical Trials, highly focused on Phase IV
2. Prescription Medicine – drugs on the market coupled with systems to increase sales
3. Physician's Office, Clinics, Hospitals
4. HMOs, Insurance Agencies, Government
5. Direct to Consumer (through pharmacies and boutique nutritional shops)
6. Livestock and niche applications

The Markets

Theranos selected pharmaceutical clinical trials as its first target market because recent market developments and increasing regulatory pressure positioned large pharmas as rapid adopters of the systems with equally rapid regulatory approval processes associated with commercializing the systems for trials. Theranos positioned its systems for use in Phase IV trials where the technology will be introduced into the homes of tens of thousands of patients per trial to collect data associated with drugs on the market that has never been previously possible to effectively generate. Moreover, the majority of pharmaceutical companies have not held the required Phase IV studies despite FDA mandate and the trials are now being assigned a growing importance due to the backlash from regulatory authorities. In introducing the systems to the pharmaceutical community, Theranos responded to the growing disparity between traditional blockbuster drug marketing models and a new demand for narrow range therapy. Rather than providing a diagnostic tool which reduced the total available patient base for a compound and still could not predict efficacy of treatment for a given therapy on an individual basis and in a real world context in which patients are often taking additional drugs which interact with each other, Theranos has positioned its systems as a requisite tool to be prescribed *alongside* a drug and in doing so, greatly improve the risk profile on highly potent drugs with potentially toxic side effects toxic market. The drug-systems combination creates a novelty in the world of prescription medicine: a targeted (narrow range) therapy which can be prescribed to the total available patient base:

Theranos designed its first generation products to monitor high profile drugs with black box warnings such as COX-2 compounds and related biomarkers. Scrutiny over such compounds as the COX-2 drugs both on the market and in the clinical trials pipeline positioned Theranos to contract with companies who would benefit from becoming leaders in safe clinical trials and therapeutics. The Theranos value proposition not only calls for enriched drug pipelines but also pre-empts any looming regulatory, political, and legal action with respect to drug safety. The ability to streamline compound customization is providing a mechanism for tailoring key compounds subject to patent expiration for new market applications. In doing so, Theranos is facilitating the development of sustainable drug pipelines while drastically reducing costs and time to market.

The Theranos systems mark the introduction of personalized *informatics* systems to *prescription* medicine. Theranos devices enable patients to monitor stimulated levels of targeted analytes in an ambulatory context throughout the course of treatment. Our handheld monitors simultaneously run high sensitivity and low sensitivity assays to detect changes in the levels of markers directly induced by the drug pathways and wirelessly communicate results to medical personnel through a bioinformatics server.

While the current approach to "personalizing medicine" centers on monitoring genetic variation or basal-level activity of targeted markers, Theranos provides a system which does not differentiate on a population basis. Instead, Theranos' 1.0 treats each individual separately, enabling therapeutic customization to occur after each patient has been dosed with a drug by measuring stimulated levels of targeted analytes.

The Theranos device correlates phenotypic expression of pharmacogenomic profiles to study drug-drug (in the context of both combination therapy as well as new drug development), metabolite, and biomarker interactions and monitor risk of adverse drug reactions on an individual basis. Unlike genomic profiling which necessitates reduction of the total available patient base to a target population pre-screened for a specific drug, the Theranos 1.0 introduces customized informatics – integration of real-time pharmacokinetic and pharmacodynamic profiles to enable dose response as a more effective screening mechanism after prescribing a drug. Likewise, the Theranos system serves as a mechanism for validating risk benefit profiles and drug differentiation.

Moreover, the Theranos 1.0 facilitates unprecedented focus on patient safety through personalized monitoring while limiting any potential liabilities. The Theranos 1.0 facilitates real-time data transmission between patients at home and physicians in clinics to enable communication and high throughput point-of-care testing in an ambulatory context.

Current projections range from coupling chemotherapeutics with panels of proteins indicative of cell killing effects to monitoring toxins in the blood to monitoring the **efficacy of treatment** of children diagnosed with Autism to determine whether or not to change therapy, diet, supplements, and heavy drug intake by measuring blood levels of Zinc and Copper via surrogate markers – something which has never been done because of the traditionally large amounts of blood necessary in a clinical lab to run these tests. The Autism project is highlighted as it is being introduced in Australia and is resulting in a joint-venture with relevant foreign parties. To illustrate the breadth of Theranos' current projects, the company is also being approached by organizations interested in redefining the risk profile of drugs discarded by large pharma to sell off to target biotech companies in a drug-systems combination which could in turn compete with existing 'blockbusters' in each respective space.

As the Theranos system becomes a requisite tool for drug development and to be prescribed alongside drugs on the prescription market, it is revolutionizing the clinical trial process in the following ways:

Theranos enables unparalleled sensitivity for therapeutic drug monitoring, and thus responds precisely to demands by the pharmaceutical and biotechnology industries for a novel development infrastructure for drugs entering clinical trials. Because the dosing mechanisms, therapeutic indices, and patient compatibility of highly potent chemotherapeutics are extremely variable, the majority of Theranos' initial products are specifically designed for novel oncology compounds.

Current development processes for oncology drugs are very expensive and inefficient. Theranos' approach to this problem is to institute change in the early stage of the development process and thereby enable companies to make accurate "Go vs. No Go" decisions during Phase I and Phase II trials. Pharmaceutical companies currently derive dosing schemes around generic models that are applied to patients dosed with highly potent chemotherapeutics. Theranos enables companies to derive dosing regimens from actual patient data in order to eliminate the wide gaps that often exist between apparent efficacy and actual toxicity of these potent drugs.

Theranos' approach will enable pharmaceutical companies to obtain vital data and conduct more experiments faster and thus to test more compounds. Furthermore, the ability to obtain highly sensitive data continuously for days after a patient has been infused with a drug enables companies to correct the disparities associated with current gaps in pharmacokinetic/pharmacodynamic (PK/PD) figures.

Likewise, toxicology studies on animals can be conducted more quickly and accurately to enable significantly higher numbers of novel compounds to enter preclinical studies. The fact that we only need 0.1 microliter of blood per sample enables us to perform numerous studies on laboratory animals that cannot tolerate loss of larger blood volumes.

Our ability to conduct real time continuous measurements of multiple analytes is a significant breakthrough in clinical science. Our first products enable companies to microdose and measure several different compounds together for the first time. Microdosing will enable companies to conduct comparative studies of several novel compounds administered in extremely low volumes in combination to humans. This capability has long been desired, but not achieved, because until Theranos, there has been no point-of-care monitoring device sufficiently sensitive to achieve these measurements.

Pharmaceutical companies require our essential ability to monitor biomarkers in combination with drug samples. Once data are transmitted to our bioinformatics server, we profile free-to-bound ratios of targeted markers, integrated exposure profiles, and early phase changes in patients. Not only do we factor dosing history into our models, but we also develop a matrix for large scale comparative population studies on novel drugs.

Current clinical trial protocols often obtain insufficient numbers of blood tests from patients because the patients must return to a phlebotomist for blood samples to be drawn throughout the trial. Using Theranos technology, companies can obtain continuous readings without requiring patients to travel. Furthermore, our devices may be synchronized to communicate with infusion pumps to incorporate more accurate dosing models into real time drug infusion protocols and methods.

The requirement to monitor novel protein and oral therapeutics throughout each phase of the clinical trial process will continue to be more strictly enforced. Theranos technology not only addresses this need but also enables companies to monitor drugs in patients during the critical Phase IV, when compounds are first introduced to market. Until Theranos, no point-of-care technology exists to effectively monitor drug levels in ambulatory patients

As Theranos moves into additional market spaces, the next development stage calls for the monitoring of a series of analytes, hormones, and biomarkers (ranging from glucose [diabetes] to progesterone [fertility or contraception] to thyroid markers) indicative of various bodily functions. The scope of our antibody platform enables us to sense a tremendously broad range of analytes; the only difference in this new set of chips is the coating step on the fibers from the original microchip. The ability to monitor many of the target analytes (such as progesterone or even certain chemotherapeutics applicable to more than one type of cancer) enables us to penetrate multiple sensing markets with just one product.

Finally, Theranos will couple these monitoring chips with compound release reservoirs in order to perform real time diagnosis and treatment of targeted ailments.

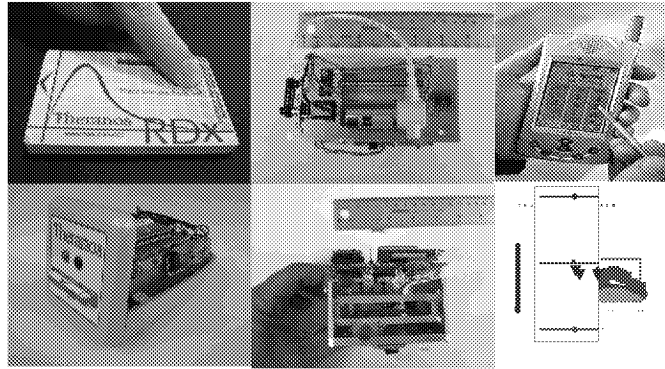
Technology

Integrated into each personalized system are technologies which revolutionize the existing healthcare infrastructure:

- A blood chemistry system more sensitive than cutting edge laboratory analytical tools
- A fully integrated finger prick blood monitoring system which eliminates the need to draw venous blood
- An integrated blood sample port which automatically samples and analyzes the droplet without the individual ever seeing (or, in most cases, feeling) the blood sample being withdrawn
- A device industrially designed to integrate into the consumer world as the ultimate *lifestyle* system
- Telecommunications and video-communications with clinic, peer groups, and other relevant parties
- Real-time Bioinformatics analysis of data and profiling on an individual's cell phone or PDA
- Web interface for patient, physician, and pharmaceutical company
- The ability to synchronize clinical data and each patient record with data generated at home to provide complete analysis or total health status of an individual
- The ability to test a patient in the home rather than the clinic
- The generation of biomarker data indicative of drug efficacy or new targets for novel pharmaceutical compounds

The Theranos 1.0 – 2.0: Pharmaceutical companies, HMOs, Clinics.

- The Theranos 1.0 is comprised of three components
- The Theranos 1.0 Reader – a device, capable of extracting *in vitro* assay data from Sample Cartridges and transmitting data via a wireless link to a remote database hosted by Theranos;
- The Theranos 1.0 Cartridge - a biochip containing assays to measure the concentration of drugs as well as defined markers for efficacy and safety in the patient's blood sample; and
- The Theranos 1.0 (ABCS) Ambulatory Bioinformatics Communication System – a database and proprietary analytic communications software for retrieval, transmission, and analysis of data from the Theranos 1.0 Cartridges



<http://www.theranos.com>

The Theranos 1.0 is being introduced to market alongside key drugs as a mechanism for greatly improving the risk profiles to enable broader prescription *and* safer and more efficacious responses to prescription medications.

The Theranos 1.0 integrates customized clinical informatics with proprietary nano-technology, biotechnology, and microfluidics into a small handheld monitor with unrivaled sensitivity. The system provides patients and physicians, and where appropriate insurers and drug companies with the ability to measure in real-time quantitative changes in any selected body chemistry or administered drug. This allows one to simultaneously conduct in-depth studies of pharmacokinetics and pharmacodynamics of targeted drugs, and to quantitatively predict when a patient is at high risk of any serious ADRs.

Theranos 1.0 synchronizes data generated in ambulatory monitoring tests with the patient record via HL7 protocol, enabling the patient and the physician to communicate in the ambulatory context AND to conduct panels of tests at home. Such tests include drug specific tests (from drug levels in an individual, to compliance, to PSA and other markers) as well as general health tests (from hormones to viral markers) and provide a mechanism for understanding **total patient health** in order to profile efficacy of a treatment and risk of adverse reaction

The combination of the 1.0 System with therapeutic pharmaceutical products will pave the path for safer therapies which can be prescribed to the total available patient base. The enablement of "narrow range", targeted therapeutic products to be prescribed generically marks the beginning of a new era of "**smart blockbuster drugs**" and has the potential to re-define traditional health responses to marketed therapeutic products.

The company is working with leading pharmaceutical companies to introduce the systems alongside therapeutics in drug-device combinations which dramatically improve the safety profiles of what will now be the next generation of blockbusters.

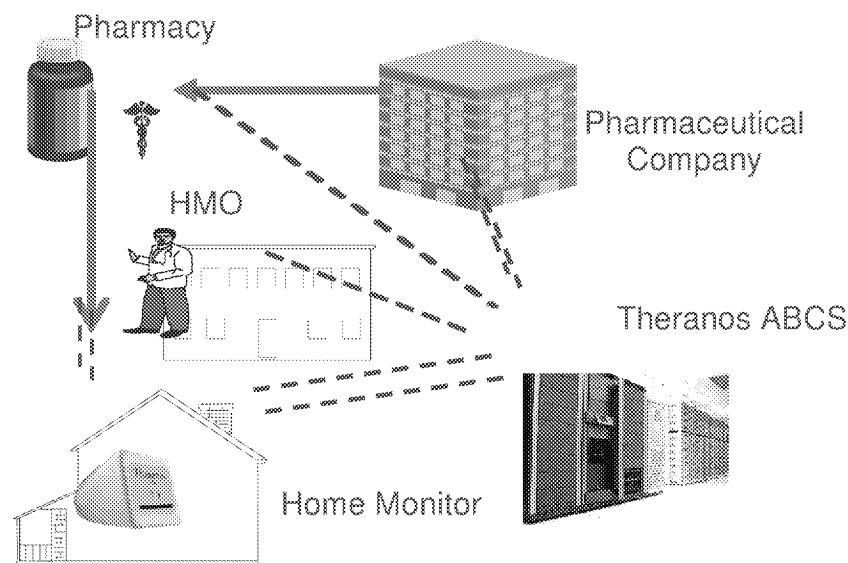
Theranos 2.5 – 5.0: Consumer Health

Theranos will release devices in an over the counter (OTC) context shortly before the drug-device combinations reach pharmacies. These systems will be targeted to meet consumer health demands ranging from fertility to STD detection.

The direct-to-consumer release enhances the pharmaceutical systems' value proposition by virtue of the fact that the OTC applications will be in use by consumers for personal needs when the prescription devices hit the market. The cartridges for consumer health indications are compatible with the pharmaceutical reader, allowing for the existence of one centralized system in *every individual's home*. The Theranos system is designed to become an integral facet of the consumer lifestyle; the OTC sales are a critical step in facilitating the introduction of Theranos systems for *monitoring anything, anytime*.

Telecom and Data Transmission:

The Theranos informatics network profiles data in such a way that it is synchronized in real-time with patient records in HMOs; as an integration of consumer electronics, software, and therapeutics the company is developing a unique revenue model around individualized ABCS (ambulatory bioinformatics communication systems) which allow for sale of cartridges for a variety of applications as well as monthly database subscription fees. With increasingly large amounts of data transmitted through Theranos chips and networks, ABCS is further emerging as an attractive new market for the top global communications companies.



FDA, Clinics, & Physicians

Theranos is developing relationships with the U.S. Food and Drug Administration, physicians at leading clinical centers of excellence, and HMOs focused on streamlining data transmission between physicians and patients. As the company's interactions with regulatory bodies, physicians, and providers increases, the Theranos system is positioned to become a requisite tool alongside which all future drugs introduced to market will be coupled. Theranos is already tailoring its system to monitor FDA-approved compounds and corresponding analytes, indicative of potential ADRs, in order to rein in, if not eliminate, the probability of serious ADRs associated with drugs already on the market. Physicians are beginning to utilize the company's customized informatics system as a critical tool by which

they can optimize prescriptions for a specific drug. Likewise, the healthcare provider community is beginning to leverage the Theranos 1.0 system to address critical patient needs, while screening for patients in need of dose modification or classifying metabolically-unqualified patients, thus ensuring overall patient safety and limits to a company's potential liabilities. The ability to monitor initial diagnosis of a patient, to couple Theranos 1.0 with prescription and OTC medications to fully optimize the safety and efficacy potential of each drug, to improve risk/benefit profile to each patient by signaling a narrower therapeutic range for each individual, and to reduce the overall number and costs of ongoing follow-up visits and resulting out-of-pocket and reimbursement costs following initial diagnosis have enabled the Theranos 1.0 system to be positioned as the critical cornerstone alongside all prescription medicines and therapies of the future.

REVENUE

This memorandum focuses on the magnitude of Theranos' first target market alone: Pharmaceutical Clinical Trials. As detailed in the attached spreadsheets (Exhibits A-C), with a 2% market share or ten phase IV clinical trials, Theranos revenue reaches \$1.1 Billion. As Theranos expands into additional markets, the company is positioned to integrate six multibillion dollar markets into one new consumer health industry. Additional revenue streams outside of the six target markets delineated in this memorandum are realized through sale of data transmitted to and analyzed on the Theranos server (already being introduced into drug master files).

With respect to the revenue models in this paper, the current size of Theranos' initial market segment of biotechnology companies conducting clinical trials with chemotherapeutic drugs is detailed in the attached Exhibits D Spreadsheets 2 and 3. We have calculated the average annual number of drug dosage level tests required in all clinical trials on therapeutic drugs, using the following statistics:

- The average annual number of new drugs in the first two markets (chemotherapeutic and cardiac drugs) that are currently undergoing clinical development;
- the average number of clinical tests in each phase for a successful drug;
- the number of patients in each phase of a clinical trial; and
- the number of tests per patient per week.

The explanation of the computation is shown on the left side of the tables in Exhibit D Spreadsheets **2a** and **2b**. The current annual market size per novel compound in clinical trials is U.S. \$168 million per year, assuming that the Theranos product has no additional value outside of being a cheaper drug analysis system for chemotherapeutic compounds. Because it is too early to calculate the actual value of our product associated with added sensitivity, speed, and safety of analysis, our market assumptions are based on current costs of testing alone. Assuming Theranos enables 40% cost savings from the cost currently incurred by the pharmaceutical companies and that Theranos captures a growing

market share of the first two market segments, we are able to estimate the market growth trend and the revenue for Theranos, as displayed in Exhibit D Spreadsheet 3a. Theranos has already entered into discussions with Sarah Cannon and MD Anderson, the two leading oncology trial centers in the U.S. By example, if Theranos technology were successfully adopted by these centers, the Company's technology would be used to screen more than 150 cancer drugs per year. Without assuming any extra product value for added sensitivity of measurements, with ten drugs through Phase I, II, and III, Theranos would earn \$2 billion per year in revenue given the current costs of testing by conventional means. Revenues associated with Phase IV trials are detailed in Exhibit C, where ten Phase IV studies would yield an additional \$1.1 Billion in revenues.

Financial incentives for pharmaceutical companies to use the Theranos infrastructure derive from dramatic cost reduction in addition to an increase in the success ration of drugs developed. Cost reductions derive from patient and research costs which total an average \$50 million¹ per phase per trial. The low production costs of cartridges clearly results in dramatic improvement in profit margins for pharmaceutical companies. However, the most substantial increase in their revenue derives from the ability to introduce higher numbers of novel compounds to market, in addition to completing the investigation of drugs that have been studied for decades because of inability to determine appropriate dosing regimens.

COMPETITION

Theranos is the first mover in a new healthcare industry. As such, we are capturing a series of early target markets and maintaining first mover advantage through our novel technology pipeline which enables us to stay a step ahead of future competition. In addition, Theranos is developing a highly efficient production infrastructure and our commitment to quality is unrivaled in the industries in which Theranos operates.

The greatest competition Theranos faces is the existing laboratory infrastructure, and outside of the benefits delineated in this paper that Theranos systems add to the healthcare system, the Theranos infrastructure further provides dramatic cost reductions for hospitals and pharmaceutical companies alike.

Appendix II details cost savings to clinics/hospitals and pharmaceutical companies in clinical trials.

In gaining traction as a requisite tool for prescription medicine, Theranos is positioned to receive full reimbursement on its systems --- a factor that greatly distinguishes the company from existing diagnostics. While there are many companies entering the point of care diagnostic space, Theranos is aggressively cementing partnerships with organizations like Lee Hoods' Institute for Systems Biology to obtain the rights to introduce novel biomarkers onto our chips.

¹ Data Source: 2003 Survey - Medicines in Development for Cancer.
<http://www.phrma.org/newmedicines/resources/2003-05-12.109.pdf>.

In addition to the fact that Theranos systems enable real-time monitoring, rather than diagnosis, the company holds a tremendous competitive advantage over any point-of-care company which seeks to enter the Theranos industry because of the fact that Theranos chips deploy proprietary versions of competitive immunoassays, an extremely versatile method for measuring analyte concentrations. With the advancement of immunochemical methods, monoclonal antibodies can be created for almost any invading antigen, including drug molecules. Theranos' methodology is sufficiently robust to be considered a platform technology, with the specific target dictated by customer need. This is in stark contrast to the use of activity assays for analyte detection. In that case, each analyte to be measured requires an entirely new assay to be designed to measure activity. In our case, the assay is identical – only the antibody needs to be changed. Therefore, we are in a unique position to introduce our devices into a series of commercial markets.

Our technology platform, together with our initial pharmaceutical company customer base, will facilitate rapid development of the closed loop system. In providing continuous, real time analysis of drug and biomarkers in whole blood, we allow a deep understanding of what happens when a drug enters the body. Building on its core sensing technology and integrated platform, and by optimizing the power behind cornerstone optical tools and interfacing them in a biological system, Theranos will be position to usher in a much-touted era of automated, "smart" therapeutic products.

In our first target market, the market standard for therapeutic drug monitoring is Abbott's TDX, developed in 1981. Still in use today, this system uses technology known as FPIA (Fluorescence Polarization Immunoassay) to measure serum drug concentration in a patient. TDX requires separation of serum from whole blood, at which point the sample can be sent to a clinic for analysis on the bench-top system. This gives rise to the time lag between data input to therapeutic models and the corresponding errors associated with the generic dosing schemes that are thereupon devised.

There are some devices currently on the market using whole blood in their assays. Among them are Boehringer Mannheim's (Roche) Reflotron™ bench –top system for measuring blood-borne analytes (most notably cholesterol) and the iStat™ (iStat Inc.), which performs a number of analyte measurements on whole blood obtained from a venous sample, including a finger stick. Reflotron™ relies on dry chemistry technology in which enzymes or other reactive elements are immobilized on the surface of a test strip. The assay is a calorimetric activity assay in which the reaction produces a color change and is thus related to amount of analyte present. The iStat™ relies on electrochemical detection to produce a signal. In either case, a blood sample is taken separately (typically by a finger prick) and the placed on the chip (or cartridge in the case of the iStat), where the reaction occurs and is analyzed by an external detection unit. At this point in time, our closest competition lies in these existing monitoring systems that do not offer the accuracy, convenience, or infrastructure associated with Theranos' platform.

Likewise, there are bioelectronic microchips currently being developed. These chips are targeted toward diagnosis of specific diseases and all run open chemistry-based assays which, as previously detailed, are not as sensitive as fluorescence-based detection systems. We have identified Nanogen® and MicroCHIPS, Inc. as two of the most

prominent companies attempting to commercialize such chips. Nanogen focuses on molecular diagnostics of targeted diseases while MicroCHIPS is developing its chips for drug delivery purposes.

In entering clinical trials and rapidly expanding into direct-to-consumer sales, Theranos strategy resembles a 'Trojan horse' approach wherein the company is positioned to replace large players in the Direct-to-consumer (DTC) market by virtue of the fact that Theranos will be selling to populations who already own Theranos readers which work with all DTC cartridges as the existing pricing structure with large pharma allows patients to keep readers used in the clinical trial and prescription contexts.

End to End Solutions: Operations and Production Infrastructure

Theranos operations and manufacturing are highly integrated with product development. The company operates around its quality control and novel process development infrastructure to enable rapid product iteration. In doing so, Theranos is positioned to commercialize a continual stream of next generation devices from its advanced systems division and maintain first mover advantage in this new market space.

To ensure that the company effectively meets the demands of contract partners, Theranos is outsourcing manufacturing to a major Engineering and Manufacturing Services (EMS) company. The EMS relationship will enable Theranos to provide its clients with world class infrastructure support services ranging from inventory and transportation management to repair and warranty services.

Theranos has a series of concurrent initiatives to introduce next generation products to manufacturing. Each generation is successively smaller, lighter, less expensive and more highly integrated while functioning with progressively smaller drops of patient blood. The production lines are being designed to produce millions of readers a year. Our consumable lines will be flexible and will allow us to produce many families of cartridges for both pharmaceutical prescription drugs and OTC medications.

Customization of the Theranos 1.0 platform for pharmaceutical partners occurs in three phases:

1. Once a company selects analytes of interest, Theranos functionalizes the Theranos 1.0 cartridges to detect the desired markers. The duration of this process will vary based upon the combination of targeted analytes (detailed in assay description in this document). Theranos delivers devices to the company for internal validation and preparation for introduction to large scale clinical trials on the drug of interest.
2. Devices are introduced into ongoing clinical studies to validate the amount of time a patient must be monitored with the device while taking the drug.
3. Devices are introduced alongside the drug as it is prescribed on the market (Phase IV).

Theranos operations and manufacturing is highly integrated with product development. We are building a novel process development infrastructure that enables rapid product iteration so as to commercialize a continual stream of next generation devices from our innovation division.

Theranos is following the FDA's Drug-Device Co-Development model to develop and commercialize its products.

Stage I: Customization

In phase one of Theranos' development partnerships the company functionalizes around 100 Theranos 1.0 readers to monitor analytes of interest for a particular drug. These devices are introduced to partner pharmaceutical companies for internal validation in preparation for introduction to large scale clinical studies. The design and specifications for these instruments are developed internally at Theranos.

To ensure that we effectively meet the demands of our partners, we are outsourcing manufacturing to major Engineering and Manufacturing Services (EMS) company, Plexus. Transfer to manufacturing will take place in the controlled environment of a single Medical Equipment Design and Manufacturing company. Our EMS partner has a long history of successful medical device design and manufacture. It is a global company with \$12B in revenue, 100 plants world wide, and 13m square feet of manufacturing capacity. Plexus is highly vertically integrated and performs most manufacturing steps in house. The company has 500 design engineers in the medical device division with expertise in Industrial Design, Mechanical Engineering, Electronic design, DFX services, Software development, PCB layout, RF and optical design, Quality Assurance, Design validation testing, and full Quality and Regulatory Compliance. They are FDA registered with QSR compliance, ISO13485/88, ISO 9001:2000, workmanship Standard IPC-A 610 and J-Std's certified. The project management systems in place to insure quality and seamless transfer to manufacturing include specific phases with defined exit criteria, providing a comprehensive infrastructure to Theranos as we scale (as illustrated in Figure 1 below detailing core competencies).

In the event of any major challenges with our primary EMS partner, Theranos is working in parallel with Sanmina SCI, another leading contractor in the medical device field.

Theranos works closely with our EMS's new product introduction center (NPI), in order to drive the product cost structure and development time line, while taking advantage of their supply chain management buying power and value engineering services.

The assays in the Theranos 1.0 cartridges are a core competency for Theranos and this process is kept in-house. As each customized assay is finalized in R&D, the procedures are fully documented and revision controlled. Manufacturing then works with R&D to scale up the formulations and writes Manufacturing Operating Procedures (MOPs) for the formulation and dispensing of the chemistry into the cassettes.

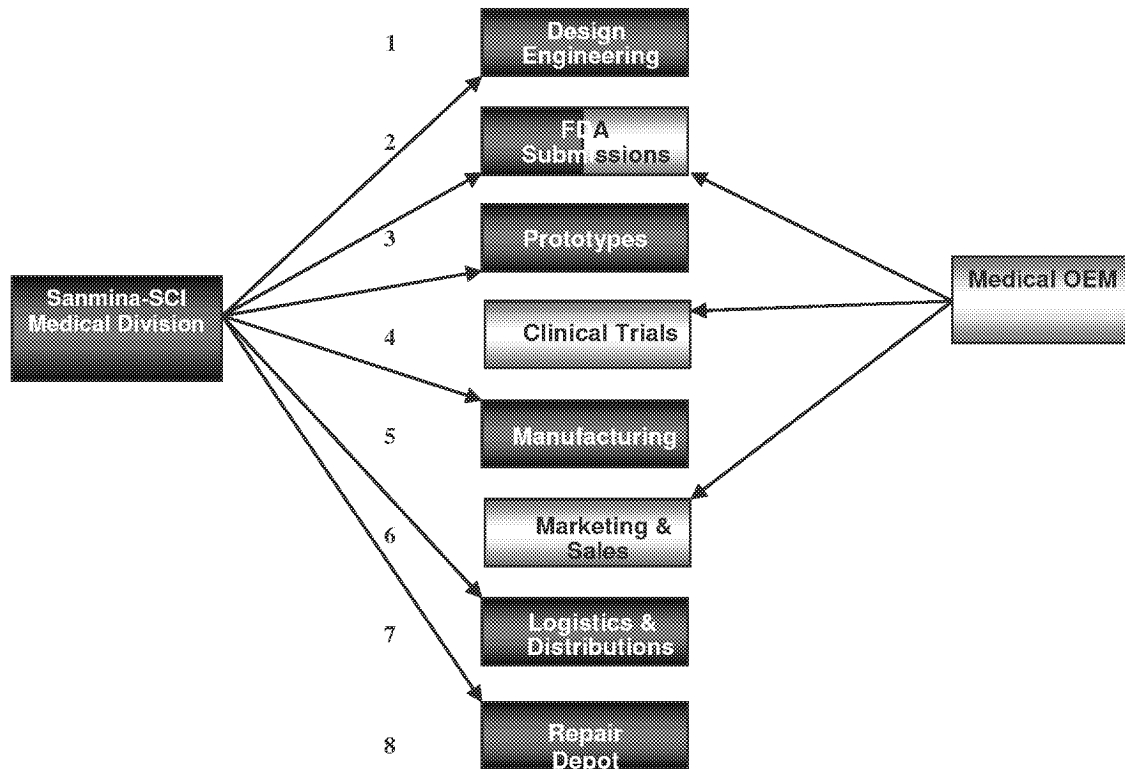


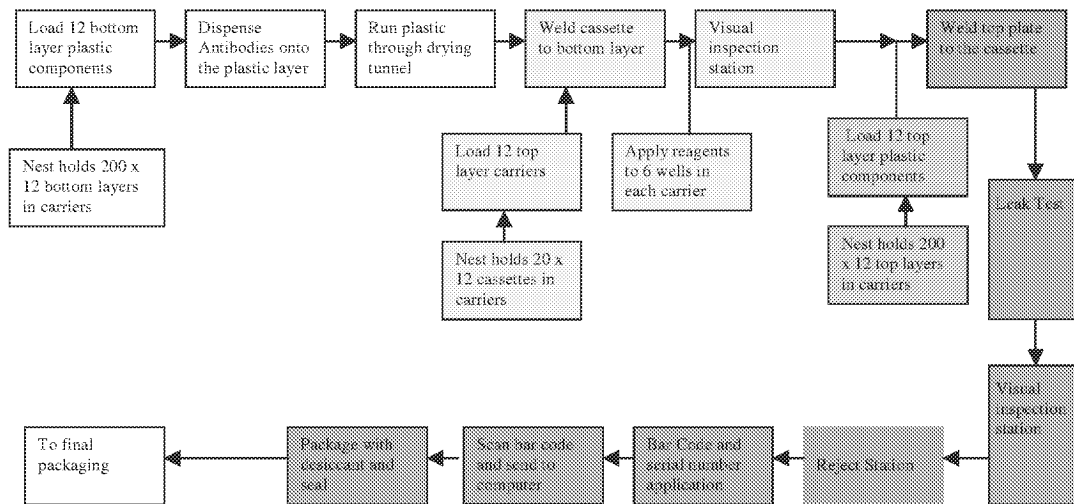
Figure 1: EMS partner core competencies

Stage II: Device Introduction to Pharmaceutical Clinical Trials

As we transition the production of the Theranos 1.0 from pilot phase to low volume manufacturing (8,000 – 10,000 readers), we will move production into one of the EMS’s FDA registered facilities. With the ramp up in volume, we leverage their expertise in volume manufacturing, supply chain management and logistics and distribution.

In this phase of the operation, we will be building between 100 and 200 units a day while optimizing our operational methods and procedures while continuing with the regulatory strategy implemented during the design and development phase.

To support the 10,000 readers in a clinical study, we are preparing to produce nine hundred thousand cartridges in the first three months of the study and another one hundred thousand cartridges over the next nine months. To meet this demand we are designing our lines to build 10,000 cartridges per day. To perform the sequence of events needed to assemble and package the cartridges, we have developed a plan for a pick-and-place production line that utilizes robotics and closed loop feedback to monitor and track each component assembled. The line will process twelve cartridges at a time to increase the cycle time of each step to three seconds.



All FDA regulatory requirements for the release of the consumable cartridges will be handled internally by the regulatory and quality group. All the chemistry and formulation testing will be validated; and all raw materials, formulations and assembly instructions will be revision controlled. Systems are being introduced to handle corrective actions and medical device reporting.

Theranos is utilizing product lifecycle management (PLM) software such as Agile and Arena Solutions to track standard costs versus actual costs, Bills of Materials (BOMs), supplier compliance, engineering drawings and all other documents that make up our device master records (DMR) and device history files (DHF). Both the software from the PLM and the software that controls the cartridge assembly will be validated and 21 CFR part 11 compliant.

Stage III: Introduction to market or to patients in pharmaceutical Phase IV trials

We are designing our lines to produce millions of readers a year at this stage of production. The consumable released in this stage will be smaller and more highly integrated than the original Stage I devices. This next generation meter is already entering the same design and scale up phases as the original Theranos 1.0. When we launch the second generation reader, production will be performed at one of the EMS's off shore FDA registered sites, either in Mexico or China depending on the total volume needed. As with the first generation meter, all distribution, returns and repairs will be handled from the US manufacturing site. Theranos' advanced development group will be developing the second generation consumable. Target cost for the meter is \$40, and the target cost for the consumable will be under \$0.30. Our consumable lines will be flexible and will allow us to produce many families of cartridges for both pharmaceutical prescription drugs and OTC medications.

In scaling a highly efficient infrastructure Theranos is expanding internationally in a targeted fashion. The company is pursuing additional development opportunities in Singapore as

Theranos contractors there will enable rapid and cost-effective integration and packaging of current and future devices in high volume (especially as pertains to some of the nanotechnology silicon chips currently being developed in Theranos Advanced Systems Division). Moreover, the company will extend its comparative pharmacogenomic studies to include Asian populations and include this data in its centralized informatics server. The company is exploring partnerships with the Cancer Syndicate (CS) and with Genome Institute Singapore (GIS), which enable Theranos to introduce its technology to *all* clinical trials run in Singapore and introduce into its protocols novel biomarkers discovered from tissue studies in GIS (similar to Lee Hood Homestead initiative).

As Theranos Asia expands, the company will still conduct proprietary prototyping of all novel compounds in the U.S., but move process development and manufacturing to Singapore. An existing consideration is an Asian IPO, which might allow for strategic divisions of the sensing systems in such a way that Theranos could target devices monitoring generic drugs or analytes most pertinent to Asian populations, while concentrating on other targets in the States (similar to ASD Solutions initiative).

REGULATORY

The Food and Drug Administration's Center for Devices and Radiological Health (CDRH) is responsible for regulating firms which manufacture medical devices sold in the United States. Medical devices are classified into Class I, II, and III; regulatory control increases from Class I to Class III. The device classification regulation defines the regulatory requirements for a general device type.

Theranos is addressing approval of the cartridges and non-disposable reader, and the device as a mechanism for data acquisition for pharmaceutical companies involved in clinical trials. Because the company is monitoring approved compounds for new indications, Theranos will couple an IRB on its first generation devices with each respective IND for the release of products. Theranos regulatory counsel has advised us that this technology should fall under Class I and the company will therefore be able to commercialize the technology without a Pre-market Notification 510(k) for the readers and subsequent 510(k)s for each functionalized cartridge. The 510(k) demonstrates to the FDA that the device is substantially equivalent to one legally in commercial distribution in the United States.

As Theranos prepares to introduce its systems to market the company will enter a two-part 510(k) process for use of the device in therapeutic drug monitoring across a range of therapeutic compounds. The 510(k) process will consist first of approval of the assays and second to approve the non-disposable reader. The reader is packaged, never touches blood, and consists of conventional electronic components. The assay is a miniaturization of gold standard laboratory assays that exist in conventional high throughput analyzers. The fact that we are working with pharmaceutical companies and compounds with blockbuster market potential helps to speed approval of the systems as they are positioned to dramatically reduce the risk profiles of the drugs.

In discussions conducted with key customers, Theranos discovered that one important reason the clinical trials market has been traditionally difficult to enter is that data originated from innovative products has not been accepted by the FDA. However, in March, 2004 the FDA launched an initiative calling for "an aggressive effort to fundamentally change and modernize the critical path for medical product testing and manufacturing." Theranos is now working with the FDA on approving our system as one of the first new methods of data acquisition for pharmaceutical companies during clinical trials. The timing of this initiative enables us to be one of the first to offer a solution that will be accepted by the FDA as a means of data acquisition and validation.

Theranos has employed the services of regulatory specialists at McDermott, Will and Emery, LLP in Washington, D.C. Likewise, the company is working closely with advisors from the NCI and FDA. In California, we are working with Erika Ammirati of Ammirati Regulatory Consulting on clinical and regulatory approval and Doug Rundle of Regulatory Specialists, Inc. on quality system regulation and design controls.

MANAGEMENT

In line with its focus on the integration of nano and bio technologies, Theranos has and is continuing to hire some of the most experienced technology professionals from both the biotech and nanotech industries to bring them together into single cross-industry teams. The company is led by world class management who have scaled several multibillion dollar businesses and who possess in-depth understanding of the business, science and market opportunities across the six different technology sectors which are integrated into the Theranos industry.

Senior executives include:

ELIZABETH HOLMES, President and CEO

Holmes' unique background in microfluidics and nanotechnology led her to found Theranos around her patent, *Medical Device for Analyte Monitoring and Drug Release*, and the vision to create a new sector of personalized health care enabling real-time diagnosis and treatment of targeted ailments in a non-invasive fashion. She has taken the company from concept to reality and built the management, product and commercial development infrastructures from the inception of the company. After seeding the company on founder's capital she raised funds from leading private and venture capital investors to build the company through to introduction of products to customers across a series of high tech industries. Holmes left Stanford University to found Theranos after contributing to the development of several novel biosensor systems through her work at Genome Institute Singapore and in collaboration with Genencor International.

RON ORAL, Vice President Operations and Manufacturing

Ron Oral is responsible for leading the quality, manufacturing, and supply chain efforts at Theranos, Inc. Prior to joining Theranos, Inc., he spent six years as Director of Consumable Manufacturing for Arcturus Bioscience Inc., a leader in the field of Laser Capture Micro-dissection and reagent systems for gene expression analysis. At Arcturus, Ron was responsible for the start up and growth of the reagent manufacturing group. He also spent

nine years at Lifescan, Inc. developing and launching new products. At Lifescan, he was responsible for managing the One Touch® and Quicksilver® reagent test strips, bringing both product lines from their start up phase through full scale production. Ron has over 20 years' experience in manufacturing and quality assurance, working in FDA regulated industries with tenure at Hitachi Chemical Diagnostic Corporation and Lifescan, a Johnson and Johnson Company. He earned his Bachelor of Science from the University of California at Davis, and an MBA from University of Phoenix.

JOHN HOWARD, Vice President, Informatics Systems

John Howard has a proven track record managing technology into products. As President of the Panasonic Semiconductor Development Company, he was responsible for U.S. based semiconductor R&D, business development, and strategic partnerships. Previously, he established and grew a sector of IBM's Microelectronics Division to \$1B in revenues per year. While with IBM's Storage Products Division, he turned around the Optical Storage Product line and grew the business to over \$100M annually.

CHRIS TODD, Vice President, Product Development

Chris has a broad background developing complex biotechnology platforms. At SurroMed Inc, he managed multi-disciplinary teams including biologist, chemists, engineers and informatics to build clinical trial based platforms for bio-marker discovery. Earlier, he was responsible for development and production of various bench-top analytical instruments and holds a number of patents in the areas of optics and mechanics. Chris previously led engineering development teams at Arcturus Biosciences, Lathrop Engineering, and Biometric Imaging.

BASIL BURKE, Vice President, Strategic Planning and Clinical Development

Dr. Burke brings many years of diverse experience to Theranos. Prior to joining Theranos, Dr. Burke held various executive positions at Clinimetrics Research Associates in San Jose California, where he was successively Vice President, Drug Discovery and Development, Chief Operating Officer of Clinimetrics BioMedical, a newly formed drug partnering/acquisition Division of Clinimetrics, and Vice President of Alacritas BioPharma, a biopharmaceutical spin-off of Clinimetrics. Before joining Clinimetrics, Dr. Burke was co-founder, CEO, and President of Plant Research Technologies, Inc. a GLP contract research organization that for seven years provided research services to the Pharmaceutical, Agrochemical and Environmental arena. Dr. Burke has an international reputation in science and business. He has over twenty-five years experience performing scientific research and leading multi-disciplinary research teams for private industry and university environments. Dr. Burke spent six years on the Dean's Advisory Council for the College of Agricultural and Environmental Sciences at University of California, Davis. He was also adjunct Professor of Chemistry at San Jose State University from 1997 to 1998. Dr. Burke served as Director of Natural Products Chemistry and Cell Biology at the ARCO Plant Cell Research Institute (PCRI) in Dublin, California. As past President of the Northern California chapter of the Society of Environmental Toxicology and Chemistry (NorCal SETAC), Dr. Burke was Chairman of the Board of Directors of NorCal SETAC and a member of the editorial board of the journal "Environmental Toxicology and Chemistry". Dr. Burke was also a Senior Fulbright Fellow to Stanford University, California, Professor of Chemistry at the University of the West Indies, Jamaica, and a post-doctoral research

fellow at the University of British Columbia, Canada. Dr. Burke received one of Jamaica's highest honors "The Centennial Medal" for his personal contribution to, and achievements in, the area of Natural Sciences.

ANTON GUETH, BUSINESS DEVELOPMENT

Anton Gueth is a senior contractor for Theranos and a recognized expert on alliance management and strategy, specializing in the pharmaceutical industry. Mr. Gueth has held numerous positions in management, sales, marketing, and finance in a variety of countries. He previously served as the Director of Alliance Management at Eli Lilly and Company, where he led Lilly's efforts to become the pharmaceutical partner of choice. Mr. Gueth also serves on the Board of Directors for Antares Pharma and is a senior consultant for Vantage Partners. As a practitioner, author, and lecturer on the topic of Alliance Management, Mr. Gueth has addressed his work to a variety of audiences in the United States, Europe, Asia and Latin America. His articles can be found in *In Vivo: The Business & Medicine Report*, *Pharmaceutical Technology*, and *The Ernst & Young Biotechnology Report*. In addition, he is a contributing author to the recent book, Mastering Alliance Strategy – A Comprehensive Guide to Design, Management, and Organization by James Bamford, Benjamin Gomes-Casseres, and Michael S. Robinson.

IAN GIBBONS, Senior Director of Assay Development

Dr. Ian Gibbons has 27 years experience in design and development of medical diagnostic and therapeutics. Educated at Cambridge University (UK), he has a Ph.D. in Biochemistry and spent several years in academic research into subunit interactions in oligomeric proteins. He has published some 40 peer-reviewed papers and is author of 36 US patents. Among the products he played a leading role in developing are the Syva EMIT protein assays, the Biotrack 512 coagulation system (also known as the Boehringer-Mannheim Coagucheck Plus), the Biotrack 516 TDM system (marketed by Ciba-Corning), the AmCell CD34 cell selection system and the First Medical Alpha Dx Point-of-Care system (marketed by Sigma Aldrich) for multiplexed assay of markers of myocardial infarct.

Theranos' advisory boards are led by a group of internationally renowned experts in both the device and pharmaceutical sectors:

SCIENTIFIC ADVISORS

DR. PAUL AUERBACH is a leading physician and Clinical Professor of Surgery in the Division of Emergency Medicine at Stanford University. He received an A.B. magna cum laude from Duke University in 1973 and his M.D. from Duke, in 1977. After completing an internship at Dartmouth and his residency at UCLA, Paul practiced as an emergency physician for several years before being appointed Chief of Emergency Medicine at Vanderbilt University in 1985, as well as Medical Director of EMS for the Tennessee Department of Health and Environment. He attended Stanford Business School and received a M.S. in management in 1989. In 1991, Paul became Chief of Emergency Medicine at Stanford University. He left Stanford in 1995 to join Sterling Healthcare Group, a publicly held emergency department management company in Florida, as COO. He

returned to the West Coast in 1996 to become COO of MedAmerica, a physician management firm. Dr. Auerbach is the former COO of KAI Pharmaceuticals, and has served as a Venture Partner with Delphi Ventures. He serves on a number of corporate and advisory boards, both public and private, including Curative Health Services, ActivBiotics, Isensix, and Gentara. He is a world-recognized expert in wilderness medicine, widely published in the field, and editor of the definitive text. Dr. Auerbach is the recipient of the Outstanding Contribution in Education Award from the American College of Emergency Physicians and the DAN America Award from the Divers Alert Network.

DR. HOWARD (SKIP) BURRIS III is the Director of Drug Development at Sarah Cannon Cancer center in Nashville, TN. He currently serves as Diplomate of the National Board of Medical Examiners; Diplomate of the American Board of Internal Medicine; Diplomate of the American Board of Medical Oncology. Dr. Burris specializes in oncology and hematology. His research interests have focused on developing investigational agents and Phase I and II testing of these new compounds. His publications include, among others, work on the taxanes and the topoisomerase I inhibitors. He obtained a BS from the United States Military Academy and his MD from the University of South Alabama College of Medicine.

Dr. LEROY HOOD's work has focused on the study of molecular immunology, biotechnology, and genomics. His professional career began at Caltech where he and his colleagues pioneered four instruments — the DNA gene sequencer and synthesizer, and the protein synthesizer and sequencer — which comprise the technological foundation for contemporary molecular biology. In particular, the DNA sequencer has revolutionized genomics by allowing the rapid automated sequencing of DNA, which played a crucial role in contributing to the successful mapping of the human genome during the 1990s. In 1992, Dr. Hood moved to the University of Washington as founder and Chairman of the cross-disciplinary Department of Molecular Biotechnology. In 2000, he co-founded the Institute for Systems Biology in Seattle, Washington to pioneer systems approaches to biology and medicine. Most recently, Dr. Hood's lifelong contributions to biotechnology have earned him the prestigious 2004 Association for Molecular Pathology (AMP) Award for Excellence in Molecular Diagnostics. He was also awarded the 2003 Lemelson—MIT Prize for Innovation and Invention, the 2002 Kyoto Prize in Advanced Technology and the 1987 Lasker Prize for his studies on the mechanism of immune diversity. He has published more than 500 peer-reviewed papers, received 14 patents, and has co-authored textbooks in biochemistry, immunology, molecular biology, and genetics, and is a member of the National Academy of Sciences, the American Philosophical Society, the American Association of Arts and Sciences, and the Institute of Medicine. Dr. Hood has also played a role in founding numerous biotechnology companies, including Amgen, Applied Biosystems, Systemix, Darwin and Rosetta.

DR. JUAN SANTIAGO's research centers around micro-scale fluid mechanics, micro-scale optical flow diagnostics, and microfluidic system design. The group's research includes the investigation of transport phenomena and optimization of systems involving microscale fluid

pumping, electrophoretic injections and separations, sample concentration methods, and rapid micromixing processes. Juan is an Associate Professor of Mechanical Engineering at Stanford and the co-founder of Cooligy, a pioneer in low-thermal-resistance cooling methods.

SENIOR FINANCIAL ADVISOR

VICTOR PALMIERI is Vice Chairman and General Counsel, Mullin Consulting, Inc.. Prior to joining Mullin, he was Chairman and Chief Executive Officer of The Palmieri Company, a firm specializing in providing general management services to large-scale, diversified financial enterprises. In 1979-1980 Victor served as Ambassador at Large and U.S. Coordinator for Refugee Affairs in the Department of State for the Carter administration. He has been a visiting lecturer at universities and business schools throughout the United States and has taught courses on corporate crisis management at the Stanford Law School and the John F. Kennedy School of Government at Harvard University. He has served as a Trustee of The Rockefeller Foundation, President of Lincoln Center Theater, and on the boards of numerous public and private companies, including Phillips Petroleum, the Pennsylvania Company, Arvida Corporation, Outlet Communications, the William Carter Company, Broadcasting Partners and Mullin Consulting. Victor is a graduate of Stanford University and the Stanford Law School.

DIRECTORS

ELIZABETH HOLMES, President and CEO, Theranos, Inc.

DR. JENNIE MATHER is the President and CEO of Raven Biotechnologies. Jennie established Raven on pioneering research performed in her laboratory at Genentech. With more than 30 years of experience in cell culture and cell biology research, Dr. Mather is a recognized leader in the application of cell biology to technology and pharmaceutical product development. She has unusually broad experience that spans basic research in cancer biology and reproductive endocrinology. As an Assistant Professor at The Rockefeller University to applied research in development and product discovery at Genentech. Prior to founding Raven, Dr. Mather was a Staff Scientist for 15 years at Genentech, engaged in all phases of drug discovery and development, from project conception through scale-up and the development of potential new products. Dr. Mather led or participated in 12 project teams that produced a number of Genentech's marketed products, including Herceptin®, a monoclonal antibody for treatment of patients with metastatic breast cancer; Activase®, a biosynthetic form of the human tissue plasminogen activator (t-PA) for treatment of heart attack, acute ischemic stroke, and acute massive pulmonary embolism; Pulmozyme®, an inhalation solution for management of cystic fibrosis; and Genentech's anti-IgE antibody currently in late-stage clinical trials for asthma. Dr. Mather's work led to a number of breakthroughs in cell technology and several key patents for Genentech, including serum-free media for the commercial production of t-PA and other products, genetically engineered production cell lines, several tissue progenitor cell lines, and use patents on several Genentech pipeline products. She also contributed to the design of the cell culture biomanufacturing processes used for commercial production of four of Genentech's marketed protein therapeutics. Dr. Mather is an inventor on 30

issued patents, the author of more than 150 publications, and the author or editor of five books on animal cell culture. She is on the board of directors of the Biotechnology Industry Organization, Healthcare Businesswomen's Association, and BayBio; and serves on the scientific advisory board of Springboard Enterprises as well as two bioscience companies. Dr. Mather is the recipient of the first Innovator of the Year Award from the Healthcare Businesswomen's Association (2003) and was named as one of the Top 10 Innovators for scientific and business aptitude by Red Herring Magazine (2002). She received a PhD from the University of California, San Diego and was an NIH-INSERM exchange scientist in Lyon, France.

DR.CHANNING ROBERTSON is the Ruth G. and William K. Bowes Professor in the School of Engineering; Senior Associate Dean for Faculty & Academic Affairs for the School of Engineering. His research focuses on the behavior of proteins at or near solid and liquid interfaces. Dr. Robertson also studies the molecular basis of interactions among naturally occurring polyphenolic compounds and proteins. He was co-Director of the \$150 million dollar Stanford initiative in biotechnology known as BioX. Dr. Robertson has consulted widely in the design of biomedical diagnostic devices. He also has served as an expert witness in several trials including the Copper-7 intrauterine contraceptive cases [in the U.S. and Australia], the Stringfellow superfund case and most recently the Minnesota tobacco trial.

FINANCIALS

Theranos was founded in 2002 and formally incorporated in 2004. The company is backed by leading private and venture capital funds from both the high tech and traditional biotech industries. Financing to date has been used to build the Theranos 1.0 system and the Theranos management team.

LEAD INVESTOR PROFILES:

Chang, Esom Taipei: Multi-billion dollar distribution group; leading distributors of high technology devices in Asia with headquarters in China and in Taiwan. Exclusive Distributor for such companies as Siemens Medical throughout Asia.

Continental Properties Company: Thirty years of active investing in private equity and venture capital. 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 the premier early stage venture capital firm. Founded in 1985, Draper Fisher Jurvetson has created a global network of affiliated venture funds with over \$3 billion in capital commitments and offices in the major technology centers around the world. Headquartered in Silicon Valley, the firm has proven expertise in identifying and helping extraordinary entrepreneurs who want to change 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 and director of numerous high growth public and private 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.

Theranos has first mover advantage in the clinical trials market for POC monitoring of highly potent drugs. The company is positioned to create a new industry around its customized therapeutic devices and is maintaining the position of one of the highest growth companies in the market.

Financial projections were built around the conservative assumption that the company will close ten development contracts by Q4 2006. Development contracts and pricing schemes are included in Appendix I (a through c).

Once Theranos has closed its primary pharmaceutical relationships, the company will not only expand across therapeutic area divisions within a given pharmaceutical company but will also begin to position itself for entry into the DTC market in 2007.

Offering:

Theranos is developing strategic partnerships with select banking firms. The company is seeking to leverage its partners' infrastructure to facilitate rapid scale-up on cross industry M&A transactions and related deals. Theranos is offering the sale of preferred stock in exchange for a long term partnering relationship. As the company is now closing deals with a series of pharmaceutical partners, the offering proceeds will facilitate rapid scaling of its production and manufacturing infrastructure by covering the:

1. Non-Recurring Engineering costs associated with Manufacturing Infrastructure to ensure Theranos maintains 100% ownership of its systems without granting rights to large pharma
 - a. The financing will cover non-recurring costs With Theranos Contactors (On Reader and Cartridge Design, Development and Production lines for Theranos 1.0 System)
 - i. Electronics
 - ii. Injection molding of devices
 - b. Internal production line and process development (Loading of Cartridges)
2. Internal development of Over-The-Counter device: Intensive Cost Reductions
3. Chip/Network Infrastructure
4. IDEO product industrial design and Focus studies
5. Resources – customer relationship management
 - a. Business Development
 - b. Marketing

6. Each contactor enables Theranos to more than triple the:
 - a. Speed with which it can supply
 - b. Number of companies it can supply
 - c. Breadth and strength of solutions and support offered (from design and user interface of products to service and maintenance of systems)

As well as to dramatically reduce the price of its systems by enabling the automation of the production infrastructure.

The aforementioned projects must launch in October to effectively service the customers with whom Theranos is already closing deals (without charging early customers for the non-recurring costs associated with building production lines). To secure each production contract burn rate will increase in November. Therefore, the offering is scheduled to close around the end of 2005.

APPENDIX I: DEVELOPMENT CONTRACT TERM SHEETS WITH PHARMA

Program Objectives: To develop a Pharma-specific application of the Theranos' proprietary 1.0 patient monitoring and bioinformatics system to monitor the progress of patients being treated with Pharma's proprietary drug product.

The Theranos 1.0 System: The Theranos 1.0 System will be comprised of three components (all as to be defined in greater detail in the Agreement):

- The "1.0 Reader" – a device, capable of extracting *in vitro* assay data from Sample Cartridges and transmitting data via a wireless link to a remote database hosted by Theranos; the life of the 1.0 Reader is 3 – 5 years;
- The "1.0 Cartridge" - a biochip containing assays to measure the concentration of target drug as well as defined markers for efficacy and safety in the patient's blood sample to be specified in the Agreement; the 1.0 Cartridge is disposable; and
- The "1.0 Ambulatory Bioinformatics Communication System (ABCS)" – a Pharma-specific database and proprietary analytic communications software for retrieval, transmission, and analysis of data from the Theranos 1.0 Cartridges and patients' records; the 1.0 ABCS will be upgraded at scheduled intervals.

The 1.0 Cartridge and 1.0 Bioinformatics Application will be built specifically for the project described in the Agreement.

Project Program: The Program will be executed in three critical phases:

- Development and Validation Phase: In this phase, Theranos will - in an iterative process with Pharma- design, develop and validate the Pharma-specific 1.0 Cartridge and the Pharma-specific 1.0 Ambulatory Bioinformatics Communication System applications, and will tailor the 1.0 Reader to specifications requested by Pharma. The Cartridges will be constructed and designed around the following proposed/targeted analytes that will be defined in the Identification Phase, and will be subject to confirmation and/or correction by Pharma.
- Clinical Evaluation Phase: Leading up to this phase, Theranos will manufacture the required Theranos 1.0 Readers and 1.0 Cartridges of the Pharma-specific 1.0 System to Pharma for evaluation in a pre-designated small clinical trial to statistically validate marker correlation to the drug of interest.

- Clinical Utilization Phase: In this phase, Theranos will deliver to Pharma large volumes of Pharma-validated and approved Readers of the 1.0 System and product-specific Cartridges for use in a series of development clinical trials or Phase IV clinical trial(s) and the data received from Readers through Theranos' proprietary ABCS transmission and analysis will be made accessible to Pharma and the clinics/clinicians involved in the clinical trials.

Program Framework: The following information is intended to inform Pharma of parallel internal plans by Theranos that will complement the development efforts and lay the framework for regulatory and commercial acceptance:

- Regulatory Compliance: All utilization of the Theranos 1.0 ABCS is in accordance with and in compliance of HIPAA and HL-7 guidelines, and Theranos is complying with the appropriate FDA regulations for devices and cartridges of this Class.
- Manufacturing Considerations: To ensure that we effectively meet the demands of our partners, Theranos is outsourcing scale-up and manufacturing to a major Engineering and Manufacturing Services (EMS) company - Plexus. Transfer to manufacturing will take place in the controlled environment of a single Medical Equipment Design and Manufacturing company. Plexus has a long history of successful medical device design and manufacture. It is a global company with plants worldwide, and international manufacturing capacity. Plexus is highly vertically integrated and performs most manufacturing steps in house. The company has many design engineers in the medical device division with expertise in Industrial Design, Mechanical Engineering, Electronic design, DfX services, Software development, PCB layout, RF and optical design, Quality Assurance, Design validation testing, and full Quality and Regulatory Compliance. They are FDA registered with QSR compliance, ISO13485/88, ISO 9001:2000, workmanship Standard IPC-A 610 and J-Std's certified. In the event of any major challenges with our primary EMS partner, Theranos is working in parallel with Sanmina-SCI, another leading contractor with similar quality and manufacturing characteristics in the medical device field.
- Supply and Distribution: To meet the demand for large scale clinical trials, we are designing our lines to build 10,000 cartridges per day. To perform the sequence of events needed to assemble, package and distribute large volumes of cartridges, we have developed a plan for a pick-and-place production line that utilizes robotics and closed loop feedback to monitor and track each component assembled. The line will process twelve cartridges at a time to increase the cycle time of each step to three seconds. We are designing our lines to produce millions of readers a year. The consumable released will be small and highly integrated. Production and distribution will also be integrated. Our consumable lines will be flexible and will allow us to produce many families of cartridges for each specific prescription drug being monitored.

- Maintenance, Training and Service: Once the product is in clinical trials or in the hands of individuals, Theranos will monitor and check the performance of the System through the 1.0 ABCS. A team of experts will be available to perform any training necessary, as well as to provide round-the-clock checks of all the bar-coded Theranos *1.0 Systems* in circulation. The Theranos response and replies will be immediate.

Appendix 1 (a)**(Draft) Proposed Detailed Tasks and Timelines**

The following are proposed details based on our estimate of desirable activities and timelines for implementation. Our projected time and events are based on the assumption (to be verified by Pharma) that the validated and accepted Theranos *1.0 System* is intended for a series of a clinical trials that will begin with a three-month validation and continuing into Phase IV trials.

Near Term Relationship

Introductory Phase: Preparation and execution of Agreement between Pharma and Theranos;

1. Identification Phase: Pharma and Theranos cooperate interactively to identify and confirm drug and other analytes, markers, assay, reagents, available at Pharma as well as antibodies or preferred sources of antibodies.
2. Technology Transfer: Protocols of assays etc., transferred to Theranos for validation and comparison with Theranos in-house assay.
3. Satisfaction Criteria: Pharma and Theranos set and agree on yardsticks/criteria for quality, performance milestones, and success.
4. Theranos proceeds with the following:
 - Performs N-well plate assays on blood samples/plasma
 - Compares Theranos' results with Pharma's results in M-well plates
 - Develops Pharma-specific cartridges and ambulatory bioinformatics communication system, and if requested modify/customize readers to Pharma's specification
 - Compares results from cartridges with results from N-well plates
 - Delivers the customized *1.0 System* to Pharma for evaluation by Pharma, based on pre-set and adjusted criteria
 - Receives Pharma's feedback for additional customization, if necessary
 - Moves mutually satisfactory *1.0 System* into first clinical trial
5. Clinical Evaluation Phase : Theranos *1.0 System* in First Pharma Clinical Trial; Pharma and Theranos integrate and evaluate the mutually satisfactory *1.0 System* into the first small clinical trial
6. Clinical Utilization Phase: (See Appendix 1(b)) Following successful evaluation in a Pharma clinical trial setting, Pharma and Theranos move clinically evaluated *1.0 System* into additional larger clinical trial settings.

Long Term Relationship

Based on the relationship developed during the first 2 years, Pharma and Theranos will map out, develop and cement their long term relationship.

Appendix I (b)

(Draft) Proposed Schedule and Budget

The following is a proposed estimate for the time and the cost of the Development and Validation Phase, Clinical Evaluation Phase and Clinical Utilization Phase of the Pharma-Theranos Program as outlined in the section called **Project Program**.

Phase	Target Completion	Item	Total Estimate (\$000 USD)
Introductory	10/01/05	Preparation of Agreement	
Execution	10/01/05	Front Payment for Line Customization	20% of Proj. Cost
Development and Validation Phase	Q2 '06	1.0 Cartridge: Estimated FTE (6x8mths = 4FTE)	\$1,200
		Estimated Materials	\$582
		Subtotal	\$1,782
		1.0 Ambulatory Bioinformatics Communication System (ABCS) and Pharma Network Database Estimated FTE (6x8mths = 4FTE)	\$1,200
		Estimated Custom Development, Integration and Installation Costs	\$2,342
		1.0 Reader Modification and Customization: (will be owned by Pharma, but no IP Enhancements to Pharma) Estimated FTE (6x0.5 = 3FTE)	\$900 \$500
		Subtotal	\$4,942,
Project Management	Ongoing	12 months @ 20 hours per month @ \$400/hr	\$96
		Subtotal	\$96
Clinical Evaluation Phase	Q4 '06	50 Readers @ \$6000/unit 2500 Cartridges @ \$80/unit ABCS Use: 50 @\$1,500 ea/mth for 6 mths	\$300 \$200 \$450
		Subtotal	\$950
TOTAL BUDGET (see notes below)			\$7,770
<ul style="list-style-type: none"> • The above referenced development total is highly subsidized by Theranos. • In the interest of developing long-term relationships with its pharmaceutical partners Theranos will continue to subsidize the systems costs for companies with whom 1) Theranos continues into Phase IV studies and 2) Theranos expands across therapeutic areas into various studies and clinical applications. The estimates that follow are intended to illustrate the aforementioned subsidized prices assuming such scenarios occur. 			

Appendix I (c)

(Draft) Projected Price/Volume Variation of Theranos 1.0 System to Pharma

The following shows approximate numbers selected from the projected volume pricing curves of the Theranos 1.0 System. These numbers are intended to show the direction and trend of prices as large volumes of the 1.0 System are developed, manufactured, sold and incorporated in everyday use. Values below 5000 Readers and 50,000 Cartridges are discontinuous, are educated estimates at best, and at this stage are very highly subsidized by Theranos.

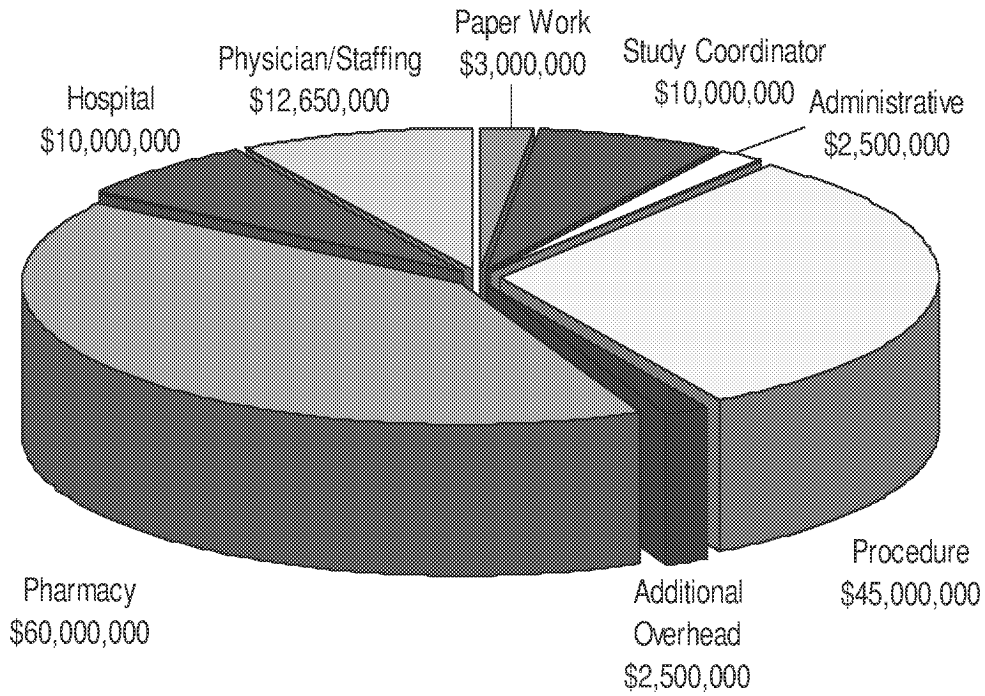
MODEL FOR PRICING	DEVELOPMENT, VALIDATION AND UTILIZATION (PROJECTED)				
	READERS				
Volume	<1000	1,000 – 5,000	5,000 – 10,000	10,000 – 25,000	25,000 – 50,000
Ex-Works Cost (2007)	\$7,000	\$5,800	\$4,300	\$3,700	\$2,800
	CARTRIDGES				
Volume	<10,000	10,000 – 50,000	50,000 – 100,000	100,000 – 1,000,000	1,000,000 – 10,000,000
Ex-Works Cost (2007)	\$80	\$50	\$40	\$30	\$15
	INFORMATICS SYSTEM				
Volume	< 1000	1000 – 5000	5,000 – 10,000	10,000 – 25,000	25,000 – 50,000
Unit Cost /month (2007)	\$2500	\$1500	\$1000	\$750	\$550

Appendix II

Traditional Method vs. Theranos 1.0 TM1 System Comparisons

Traditional Method Operating Cost		With Theranos 1.0 System		Savings
Components	Cost/Test	Components	Cost/TEST	/Test
Laboratory				
Direct labor 5 FTE's	\$62.30 (44.5%)	1 POC Testing Supervisor (2hr/day)	\$0.20	
Supplies: Reagents, QC Supplies, Tanks Disposables	\$25.20 (18%)	Supplies: Cartridges Disposables	\$20	
Maintenance	\$6.30 (4.5%)	5,000 Readers & ABCS (includes reporting)	\$ 200/4 = \$50	
Depreciation	\$5.60 (4.0%)	5,000 Readers over 5 yr.	\$20	
Clinic				
Acquisition of Blood Samples	\$21.00 (15.0%)	Acquisition of Blood samples	NA	
Prep of Samples for lab	\$9.80 (7.0%)	NA	NA	
Transport of Samples to lab	\$9.80 (7.0%)	NA	NA	
Total	\$140		\$90.2	~\$50
<p>*Based on the price of analyses for blood samples. The %s are approximate breakout per blood test for a lab that does ~ 30,000 tests per yr. For the POC supervisor: Assume 20 persons per 1 hour class and a rate of \$30/hr.</p>				

Current Clinical Trial Cost Breakdown (Total \$150,000,000)
Data taken from Genentech, Inc. 2003



APPENDIX III: INTELLECTUAL PROPERTY

Our principal corporate council is Winston and Strawn, LLP located in San Francisco, California and Wilson, Sonsini, Goodrich and Rosati, LLP located in Palo Alto, California. Our Patent and Licensing attorneys are with McDermott, Will, & Emery located in Washington, D.C.

Product development at Theranos revolves around its Advanced Systems Division. Transfer of next generation designs to product development occurs on a daily basis. Our first patent was filed in 2003 and is currently being prosecuted. We have since documented our development in provisionals which are being converted into CIPS.

Theranos' first provisional patent, *Medical Device for Analyte Monitoring and Drug Delivery*, was filed by Elizabeth Holmes in September, 2003 and was converted to non-provisional form in September, 2004. This patent is continued in CIPs specific to components of our technology platform: fluid sampling, fluidics, assays, optics, electronics and packaging, and integration.

As of 9/05 Intellectual Property filings are delineated as follows:

a. Non-provisional Applications

<u>Title of Application</u>	<u>Application No.</u>	<u>Filing Date</u>
Medical Device For Analyte Monitoring And Drug Delivery	WO2004US002946 2*	September 10, 2004
Medical Device For Analyte Monitoring And Drug Delivery *: published	US2004000937872 *	September 10, 2004

The above applications claim priority to a provisional application filed on September 11, 2003. The claims (74 claims) relate to various aspects of Theranos' devices and methods. The US application has been divided into three divisionals.

b. Provisional Applications

<u>Title of Application</u>	<u>Application No.</u>	<u>Filing Date</u>
Medical Device for Analyte Monitoring and Drug Delivery	US2003000501847 P	September 11, 2003
System for Real-time Therapeutic Monitoring	*****	May 9, 2005
Methods for Minimizing Calibration Errors For Assays Performed In Disposables	*****	August 3, 2005
1. SYSTEM AND METHODS FOR DETERMINING EFFICACY OF THERAPY AND MEDICATIONS IN INDIVIDUALS	*****	September 16, 2005
2. CONFIGURATIONS FOR IMPROVING PERFORMANCE OF A MICROFLUIDICS-BASED DISPOSABLE DIAGNOSTIC SYSTEM	*****	September 20, 2005

Appendix IV Theranos 1.0: Technology

Blood Sampling

The sampling roadmap begins with a standard capillary blood finger stick using an integrated lancet. As development progresses from Phase I to Phase III with our partner companies the volume of blood required is reduced to a painless level. The roadmap includes very low volumes and automatic sampling. Alternate site testing is possible with these small amounts of blood. The internal cartridge capillary is coated with (a) anticoagulants, (b) inhibitors of thromboxane production and (c) additives that will minimize interference in the assay due to the sample matrix. Automatic collection of blood directly into the device will occur with the introduction of micro needles as the sampling device. Micro needles are available from a number of sources and form the platform for automatic sampling.

Assay

Markers for which assays were developed

The strength of the Theranos assay system lies in the fact the cartridge can be functionalized to monitor any combination of targeted analytes with the introduction of monoclonal antibodies in each well.

Currently, reagent and assay development are proceeding for both very scarce eicosanoid molecules (Thromboxane B₂, 6-keto-Prostaglandin-F-1-alpha, and 11-dehydro-Thromboxane B₂) as well as for drug molecules present at higher concentrations (ranging from COX-2 inhibitors, to aspirin, to theophylline, to vancomycin) in human blood.

The unique, platform nature of the Theranos assay allows us to run both high sensitivity and low sensitivity assays in a single chip.

Details of the assay/chemiluminescence

The Theranos assay is a modified form of a commercially available chemiluminescent enzyme immunoassay. The enzyme used is alkaline phosphatase and the substrate is a commercially available dioxitane-phosphate which is not luminescent but becomes luminescent after hydrolysis by alkaline phosphatase. The substrate solution is supplemented with "enhancing agents," which create a much brighter signal than the luminophore alone. In addition, we employ an alkaline phosphatase conjugate with a higher turnover number than that used in the commercial assay. This allows signal generation to proceed much more rapidly and a higher overall signal is achieved.

Results of patient studies measuring these markers

Theranos has been able to enhance the sensitivity of gold standard luminometer based assays in its chips to the extent that responses in undiluted plasma from "normal subjects" mirror (but are not identical with) those in buffer (which is not the case for the commercial assays). To develop our calibration scheme we are obtaining plasma from "normal" subjects and from arthritis patients medicated with various drugs including COX inhibitors.

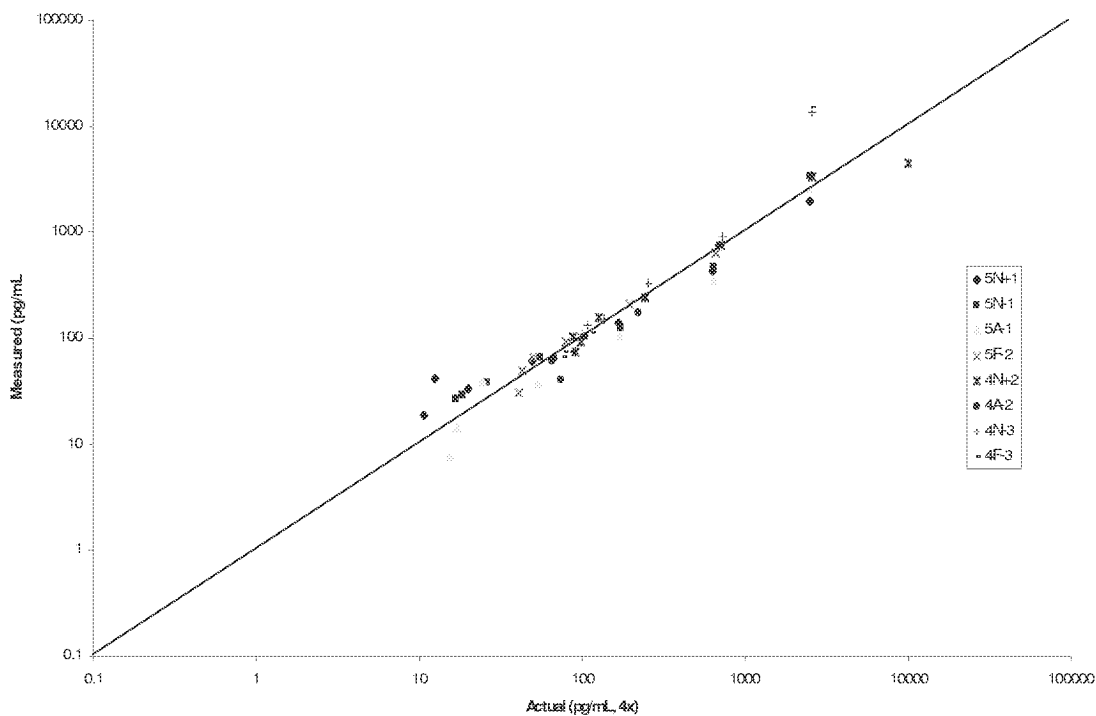
The endogenous levels of analytes are measured and calibration materials prepared using known spikes of analytes (and of course the endogenous levels).

Timelines for development of assays

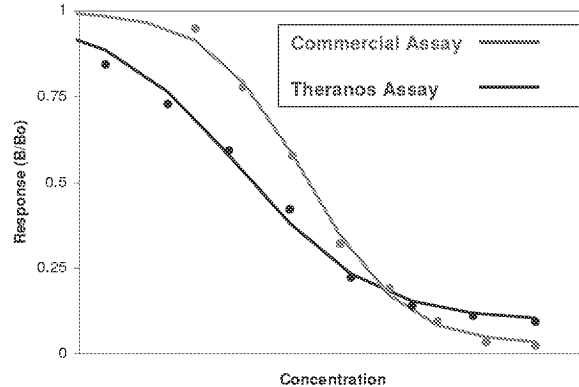
Once prototype assay methodology is standardized and a source for suitable antibodies is secured, assay development for other eicosanoids or other types of analytes proceeds quite quickly. We anticipate that within a prototype development system, feasibility for a new assay will only take a few days. Such new assays can be developed and implemented within about three months and can be fully developed at ISO 9000 standards within about six months.

Sensitivity, specificity and precision versus standard methods

The Theranos assay is designed to more effectively harness the binding affinity of an antibody than standard small molecule immunoassays. Thus, the sensitivity of our assay is inherently higher than what is currently commercially available (see Figures Below). The assay is also less sensitive to matrix effects than other methodologies, allowing us to work with something much closer to a neat sample rather than one that has been pre-processed by steps such as dilution, solid phase extraction, or chromatography. By limiting the number of steps in the overall process, we see improved precision as well as reproducibility.



Validation of markers detected at targeted levels in human blood using Theranos assay.



Comparison of dose response of the Theranos assay with the commercial standard using an identical antibody.

We also have begun an effort to generate proprietary monoclonal antibodies with a higher affinity than currently available products. Our modeling has shown that improvements in binding affinity of up to 100x are possible. Adoption of such higher affinity antibodies will improve both assay sensitivity and specificity.

Cartridge

The cartridge design is such that many generations of different assays can be implemented in the same cartridge design.

(a) Physical Size Fixed

The cartridge is fixed in size and its connection to the 1.0 is also fixed. This allows the 1.0 to be used for many years with a variety of cartridge configurations.

(b) Reagents on board

All reagents and waste are contained on the cartridge. This feature eliminates any reagent or waste handling from the Theranos 1.0 reader, further increasing the universality of the Theranos 1.0. The reagent volumes and specific fluid design of the cartridge are also independent of the Theranos 1.0, and are designed to optimize the specific assay being performed by the cartridge.

(c) Assay Protocol

The specific assay protocol is controlled by software downloaded into the Theranos 1.0. The protocol is specific to each cartridge type and can be changed even after the cartridge is released to the field.

(d) Device Design

The Theranos 1.0 is designed for use by untrained people. There are no user controls on the product, and the only action required to start an assay is to insert the cartridge. The device design includes a mechanical system that manages movement of the cartridge into and out of the machine, as well as selection of the specific assay to measure. The design

also includes an electronic system that controls the mechanical elements of the machine as well as a communications sub system that communicates with the Theranos servers. These servers manage the detail operations of the device, manage error recovery procedures, and save the assay data for further processing. The non-disposable reader has a lifetime of 5 years with average usage once per day. The cartridges are disposable. The Stage I version of the Theranos 1.0 is designed to be charged with power from a standard wall power supply, and when not in use consumes less than 0.1 watt.

(e) Functionality

There are two basic functions of the Theranos 1.0: 1) perform the specific assay for which the cartridge is designed and 2) save the results until they can be communicated to the database.

When a cartridge is inserted into the Theranos 1.0 the mechanical system takes control of the card as it is moved into the reader. Once in the reader it cannot be removed until the assay is completed. The next step is to perform a complete system test to insure all the sub-systems are performing correctly. The type of cartridge is checked with the Theranos database to be sure it is correct for this particular machine. When it is determined that the cartridge is correct a specific assay protocol is downloaded into the machine for processing. Once the assay starts, intermediate check points are communicated to the server as a further check of correct operation. When the assay is completed the cartridge is removed prior to inserting the next chip.

Software

The software component of the Theranos 1.0 system consists of several subsystems. These subsystems control device management, telecommunications, database management, informatics and web access.

(f) Device Management

The device management portion consists of the embedded software present on the device itself. This device is responsible for running device diagnostics, running assays, reporting results and managing updates to itself. The embedded environment permits retention of measured results indefinitely during unexpected communications outages.

(g) Communications

The communications environment consists of the technologies and protocols to establish a secure transfer of the measurements made by the device. The transactions are verified and encrypted in a form suitable to federal privacy requirements and are HIPAA compliant. Likewise, the protocols are HL7 compliant, meaning the infrastructure can be linked directly to HMOs and practicing physicians. This environment hands the transactions off to the database environment.

(h) Database

The database environment represents the subsystem that maintains the persistent data storage for the system. It is responsible for securely and reliably retaining the data received. It also provides the infrastructure for performing informatics operations over the collections.

(i) Informatics

The informatics system provides the structure for performing analysis on the data. The algorithms present include well understood statistical tools as well as the ability to apply newer technologies such as knowledge based informatics. Theranos algorithms correlate the relationship between real-time pharmacodynamic and pharmacokinetic data to pharmacogenomic profiles. In addition, Theranos algorithms profile risk thresholds by incorporating multiple regression analysis accounting for factors ranging from blood pressure, cholesterol levels, and other standard measurements read in a clinic to standardized cardiovascular risk factors and an individual's pre-disposition to adverse events.

Theranos has an ongoing relationship with the medical informatics department of the Stanford University School of Medicine, Department of Medical Informatics.

(j) Web reporting

The final environment supported is the web-based reporting environment which provides the results developed in the informatics environment. This is a large-scale highly secure system. The tools will include query and advanced data visualization capabilities. Login capabilities exist for physicians and patients alike with interactive communication mechanisms in place.

Appendix V

RISKS RELATED TO OUR BUSINESS

Capital Resources:

Based on current projections, Theranos believes that the proceeds of this offering will enable the company to build the production infrastructure necessary to service its pharmaceutical customers and reach cash flow positive. However, we cannot be assured that changed circumstances will not result in the depletion of our capital resources more rapidly than we currently anticipate.

Other Risk Factors:

- The rate of progress and costs of our research and development activities, leading to the production of our first generation device;
- Regulatory approval;
- Our success in establishing strategic business collaborations, including manufacturing of components by partners offshore;
- The timing and amount of fees from potential customers;
- Our success in commercializing our product candidates;
- The emergence of competing technologies and products and other adverse market developments;
- The cost of preparing, filing, maintaining and enforcing patent claims and other intellectual property rights or defending against claims of infringement by others.

Future Financing

We may in the future seek to raise additional capital through the private placement of equity securities and/or debt securities, or the establishment of other funding facilities. These financings could affect your rights as a holder of our preferred stock, may dilute your ownership percentage, and may impose restrictions on our operations.

Managing Growth

If we are unable to manage growth in connection with our transition from a development company to a company that successfully commercializes its product line, the expansion of operations and organization could strain our management and financial resources.

Market Acceptance

The degree of market acceptance of our product candidates will depend on many factors, including:

- The willingness and ability of patients and the healthcare community to adopt new technologies;

- The ability to manufacture the product in sufficient quantities with acceptable quality and at acceptable cost;
- The perception of patients and the healthcare community regarding the safety, efficacy and benefits of our products compared to those of competing products;
- The convenience and ease of administration relative to existing treatment methods;
- The pricing and reimbursement of our products relative to competing products; and
- Marketing and distribution support for our products.

Product Liabilities

The testing, manufacturing, marketing and sale of our products expose us to potential product liability claims which could consume significant financial and management resources, and result in judgments over and above the amount of our liability insurance.

Key Employees

If we lose any key employees, including particularly Ms. Elizabeth Holmes, Founder and Chief Executive Officer, our ability to execute our business strategy could be materially harmed.

MITIGATION OF RISKS

Theranos is leading the introduction of individualized informatics systems to prescription medicine. For the first time, Theranos is coupling point-of-care systems with drugs being introduced to market to improve the risk profiles of key therapies which are losing market share or have otherwise not been able to gain approval by the regulatory authorities. The Theranos technology is the first platform capable of monitoring panels of biomarkers and drug molecules in extremely low concentrations in a tiny drop of whole blood. As such, information about efficacy, safety, and risk of adverse reaction to a drug can now be gathered by collecting daily profiles of targeted biomarkers in an ambulatory context, where patients are often taking combinations of drugs which cross react with a critical treatment. In coupling the Theranos systems with a drug, the drug can be prescribed generically to a total available patient base for a given indication but the therapy will serve as the ultimate in narrow range treatment by virtue of the fact that therapy, in this case, encompasses an individualized monitoring system.

As such, the Theranos systems are being introduced alongside blockbuster compounds which are black-boxed and will be pulled from the market. As described below, its first ten pharmaceutical contracts all call for the systems to be introduced alongside drugs for which FDA is demanding aggressive monitoring programs to continue use on the market.

Therefore, the Theranos contracts do not resemble traditional biotech deals with large pharma as the pharmaceutical companies are pushing for the launch of deals prior to loss in prescription sales. This enables Theranos to realize substantial revenues within a strikingly short period of time. Embedded in the Theranos value proposition is the creation of an industry which will be fundamental to pharmaceuticals of the future.

In this context, it is clear that the investment opportunity presented in the Theranos offering is unique not only in terms of the magnitude of return on investment but also with respect to the speed with which the value proposition has been and is continuing to increase.

Barriers to entering the Theranos market space:

1. Proprietary processes:
 - a. In addition to its patent portfolio Theranos is protecting its position in the market through its extensive process development infrastructure wherein the proprietary processes associated with integrating its systems are uniquely segmented between select teams in its operations division. The following confidential assembly processes are fundamental to the reproducibility and quality of Theranos systems:
 - b. Functionalization of surfaces
 - c. Microchannel etching
 - d. On Board Calibration
2. Proprietary technology and systems: Theranos is filing an average of one-two patents every month. The core proprietary technology associated with Theranos systems lies in the:
 - a. Assay Platform
 - b. Informatics
 - c. System integration
 - i. On board, automated blood sampling
 - ii. Wireless calibration
3. Advanced Systems Development:
 - a. As part of its initiative to pre-empt future competition from diagnostics companies Theranos is aggressively developing next generation systems. From its inception, the company has allocated substantial resources to its Advanced Systems Division wherein an extensive product pipeline is being translated from research into development. As such, Theranos is positioned to *concurrently* release a series of products into the pharmaceutical and clinical markets. The speed with which Theranos will release next generation systems, as evidenced already by its production rate to date, will make it very difficult for any company to compete in the Theranos space. Finally, through its industrial design partner, Theranos is commercializing systems designed to become a critical component of the consumer lifestyle and function in such a way that all future generations will be compatible with the existing infrastructure.
4. Manufacturing development infrastructure:
 - a. An additional barrier to entry is the speed with which Theranos production infrastructure is designed to iterate its systems and the quality with which Theranos manufactures. As Theranos is leading entry into the ambulatory market and then expanding from pharmaceutical to commercial applications by leveraging its initial customer base in the ambulatory market, the company is already seeing leading diagnostics and biomarker companies approaching Theranos with rights to license biomarker and diagnostic platforms to participate in Theranos' growing stronghold in the ambulatory space.

**Theranos
Balance Sheet
CY 2005**

Exhibit A

10/27/2005
CONFIDENTIAL

	As of 12/31/2004	As of 3/31/2005	As of 6/30/2005	(est) As of 9/1/2005	
ASSETS					
Cash	\$4,074,541.05	\$4,743,402.45	\$3,920,480.65	\$3,286,133.00	* The company has access to \$3,000,000 line of credit
Net Inventory	\$0.00	\$0.00	\$0.00	\$0.00	
Accounts Receivables	\$0.00	\$0.00	\$0.00	\$0.00	
Net Fixed Assets	\$77,341.75	\$219,450.92	\$433,385.41	\$487,212.85	
Other Assets	\$90,181.48	\$90,181.48	\$90,981.48	\$90,981.48	
Total Assets	\$4,242,064.28	\$5,053,034.85	\$4,444,847.54	\$3,864,327.33	
LIABILITIES & EQUITY					
Accounts Payable	\$79,255.62	\$162,216.10	\$380,100.00	\$20,510.66	
Accrued Expenses	\$0.00	\$0.00	\$1,544.62	\$4,138.79	
Other Liabilities	\$0.00	\$0.00	\$0.00	\$0.00	
Total Liabilities	\$79,255.62	\$162,216.10	\$381,644.62	\$24,649.45	
Capital Stock	\$4,622,941.49	\$5,855,441.49	\$5,855,441.49	\$5,855,441.49	
Retained Earnings	\$0.00	(\$460,132.83)	(\$460,132.83)	(\$460,132.83)	
Current Earnings	(\$460,132.83)	(\$504,489.91)	(\$1,332,105.74)	(\$2,555,630.78)	
Total Equity	\$4,162,808.66	\$4,890,818.75	\$4,063,202.92	\$2,839,677.88	
Total Liabilities & Equity	\$4,242,064.28	\$5,053,034.85	\$4,444,847.54	\$2,864,327.33	

**Theranos, Inc.
Revenue Projections**

12/5/2005
Confidential

		Sep-06	Oct-06	Nov-06	Dec-06	Jan-07	Feb-07	Mar-07	Apr-07	May-07	Jun-07	Jul-07	Aug-07	Sep-07	Oct-07	Nov-07	Dec-07
Reader	Units	100	150	300	350	350	500	500	1,000	1,000	1,500	2,000	2,500	5,000	7,500	10,000	15,000
	Price	7,000	7,000	7,000	7,000	7,000	7,000	7,000	5,800	5,800	5,800	5,800	5,800	4,300	4,300	3,700	3,700
	Cost	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	2,100	2,100	2,100	2,100	2,100	2,100
	Revenue	700,000	1,050,000	2,100,000	2,450,000	2,450,000	3,500,000	3,500,000	5,800,000	5,800,000	8,700,000	11,600,000	14,500,000	21,500,000	32,250,000	37,000,000	55,500,000
	DPC	300,000	450,000	900,000	1,050,000	1,050,000	1,500,000	1,500,000	3,000,000	3,000,000	3,150,000	4,200,000	5,250,000	10,500,000	15,750,000	21,000,000	31,500,000
	% Margin	57.14%	57.14%	57.14%	57.14%	57.14%	57.14%	57.14%	48.28%	48.28%	63.79%	63.79%	63.79%	51.16%	51.16%	43.24%	43.24%
	Install Base	100	250	550	900	1250	1750	2,250.00	3,250.00	4,250.00	5,750.00	7,750.00	10,250.00	15,250.00	22,750.00	32,750.00	47,750.00
Cartridges	Units	15,000	30,000	75,000	100,000	100,000	150,000	200,000	275,000	275,000	350,000	500,000	750,000	1,500,000	1,750,000	3,000,000	4,000,000
	Price	40	40	40	30	30	30	30	30	30	30	30	30	15	15	15	15
	Cost	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
	Revenue	600,000	1,200,000	3,000,000	3,000,000	3,000,000	4,500,000	6,000,000	8,250,000	8,250,000	10,500,000	15,000,000	22,500,000	22,500,000	26,250,000	45,000,000	60,000,000
	DPC	180,000	360,000	900,000	1,200,000	1,200,000	1,800,000	2,400,000	3,300,000	3,300,000	4,200,000	6,000,000	9,000,000	18,000,000	21,000,000	36,000,000	48,000,000
	% Margin	70.00%	70.00%	70.00%	60.00%	60.00%	60.00%	60.00%	60.00%	60.00%	60.00%	60.00%	60.00%	60.00%	20.00%	20.00%	20.00%
Informatics	Price	2,500	2,500	2,500	2,500	2,500	2,500	2,500	1,500	1,500	1,500	750	750	750	500	500	500
	Revenue	250,000	625,000	1,375,000	2,250,000	3,125,000	4,375,000	5,375,000	4,500,000	5,550,000	7,275,000	4,875,000	6,375,000	9,750,000	9,750,000	14,250,000	21,000,000
Total	Revenue	1,550,000	2,875,000	6,475,000	7,700,000	8,575,000	12,375,000	14,875,000	18,550,000	19,600,000	26,475,000	31,475,000	43,375,000	53,750,000	68,250,000	96,250,000	136,500,000
	DPC	480,000	810,000	1,800,000	2,250,000	2,250,000	3,300,000	3,900,000	6,300,000	6,300,000	7,350,000	10,200,000	14,250,000	28,500,000	36,750,000	57,000,000	79,500,000
	% Margin	69.03%	71.83%	72.20%	70.78%	73.76%	73.33%	73.78%	66.04%	67.86%	72.24%	67.59%	67.15%	46.98%	46.15%	40.78%	41.76%

Copy of CY2006 Forecast

HOLMES0018853

**Theranos
Income Statement
Forecast through CY 2007**

12/5/2005
CONFIDENTIAL

	<u>FY 2004</u>	<u>Qtr 1</u>	<u>Qtr 2</u>	<u>Qtr 3</u>	<u>Qtr 4</u>	<u>CY 2005</u>	<u>Qtr 1</u>	<u>Qtr 2</u>	<u>Qtr 3</u>	<u>Qtr 4</u>	<u>CY 2006</u>	<u>Qtr 1</u>	<u>Qtr 2</u>	<u>Qtr 3</u>	<u>Qtr 4</u>	<u>CY 2007</u>
Revenue																
Reader	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$700,000	\$5,600,000	\$6,300,000	\$9,450,000	\$20,300,000	\$47,600,000	\$124,750,000	\$202,100,000
Cartridge	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$600,000	\$7,200,000	\$7,800,000	\$13,500,000	\$27,000,000	\$60,000,000	\$131,250,000	\$231,750,000
Informatics	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$250,000	\$4,250,000	\$4,500,000	\$12,875,000	\$17,325,000	\$21,000,000	\$45,000,000	\$95,200,000
Total	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,550,000	\$17,050,000	\$18,600,000	\$35,825,000	\$64,625,000	\$128,600,000	\$301,000,000	\$530,050,000
Cost of Goods Sold																
Direct Costs	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$480,000	\$4,860,000	\$5,340,000	\$9,450,000	\$19,950,000	\$52,950,000	\$173,250,000	\$255,600,000
Manufacturing Overhead	\$0	\$590	\$48,393	\$65,562	\$75,000	\$189,546	\$634,600	\$1,657,300	\$2,621,400	\$4,735,600	\$9,849,100	\$5,000,000	\$6,300,000	\$5,500,000	\$5,800,000	\$21,600,000
Total COGS	\$0	\$590	\$48,393	\$65,562	\$75,000	\$189,546	\$634,600	\$1,657,300	\$3,101,400	\$9,595,600	\$15,189,100	\$14,450,000	\$25,250,000	\$58,450,000	\$179,050,000	\$277,200,000
Gross Margin	\$0	(\$590)	(\$48,393)	(\$65,562)	(\$75,000)	(\$189,546)	(\$634,600)	(\$1,657,300)	(\$1,551,400)	\$7,454,200	\$3,410,900	\$21,375,000	\$39,375,000	\$70,150,000	\$121,950,000	\$252,850,000
											18%	60%	61%	55%	41%	48%
Operating Expenses																
R&D	\$217,751	\$357,941	\$486,269	\$904,601	\$1,200,000	\$2,948,811	\$2,236,700	\$2,468,300	\$2,446,800	\$2,361,000	\$9,454,800	\$2,500,000	\$2,800,000	\$3,000,000	\$3,200,000	\$11,500,000
Marketing & Sales	\$0	\$0	\$0	\$0	\$0	\$0	\$67,700	\$167,700	\$419,000	\$777,000	\$1,431,400	\$850,000	\$1,000,000	\$1,250,000	\$1,500,000	\$4,600,000
G&A	\$210,235	\$180,598	\$326,269	\$359,461	\$350,000	\$1,216,328	\$531,000	\$444,000	\$587,000	\$642,960	\$2,204,960	\$650,000	\$700,000	\$750,000	\$800,000	\$2,900,000
Total Expenses	\$427,985	\$538,539	\$812,538	\$1,264,062	\$1,550,000	\$4,165,139	\$2,837,400	\$3,020,000	\$3,452,800	\$3,780,960	\$13,091,160	\$4,000,000	\$4,500,000	\$5,000,000	\$5,500,000	\$19,000,000
Other Income/Expenses	\$32,147	(\$12,030)	(\$15,646)	(\$14,465)	(\$9,000)	(\$51,461)					\$0					\$0
Net Income/(Loss)	(\$460,133)	(\$526,798)	(\$845,265)	(\$1,315,139)	(\$1,616,000)	(\$4,303,223)	(\$3,672,000)	(\$4,677,300)	(\$5,004,200)	\$3,673,240	(\$9,680,260)	\$17,375,000	\$34,675,000	\$65,150,000	\$116,450,000	\$233,650,000

EXHIBIT D: MARKET ANALYSIS AND COST OF GOODS SOLD

All yellow cells are user inputs.

Exhibit 2a. Estimation of Bottom Value and Market Size of Theranos Product

Explanation	Drug Type:	1st Market Segment - Chemo Drugs				2nd Market Segment - Cardiac			
		Phase 1	Phase 2	Phase 3	Total	Phase 1	Phase 2	Phase 3	Total
<i>a</i>	Year to launch Theranos Product				2007				2007
<i>b</i>	Odds of FDA Approval ¹ - 1 in:	5.5	3	1.12	9.62	5.5	3	1.12	9.62
<i>c</i>	Avg No. of Drugs in Development in 2004 ²	206.4	112.6	42.0	361	52.6	28.7	10.7	92
<i>d</i>	No. of patients in Clinical Trials ³	100	300	3,000		100	300	3,000	
<i>e</i>	No. of dosage tests per patient per week	7	7	7		7	7	7	
<i>f</i>	No. of years required for Clinical Trials ⁴	1.5	2	3.5	7	1.5	2.0	3.5	7
$g=b*c*d*e*(f*52)$	Total No. of tests required in Trial	11,269,054	24,587,027	160,635,243	196,491,324	2,871,692	6,265,946	40,937,514	50,075,351
$h=g/(total\ of\ f)$	Average No. of Tests per year				28,070,189				7,153,622
Costs									
<i>i</i>	Current Unit Cost of Clinical Test ⁴				\$ 150				\$ 35
<i>j</i>	Fraction of this cost at which Theranos will charge its price				60%				
$k=i*j$	Price of Theranos Test				\$ 90				\$ 21
Average Annual Figures									
$n=h*i$	Market Size of Current testing methods that Theranos is positioned to replace:				\$ 4,210,528,378				\$ 250,376,757
$p=(1-j)*n$	Potential Annual Cost Savings to Customers				\$ 1,684,211,351				\$ 100,150,703
Annual Market Size for Theranos per drug					\$ 2,526,317,027				
Annual Savings to Pharma for every successful new drug:					\$ 314,168,400				

¹ Data Source: Presentation of Roche CEO Bob Stein at Stanford in May 2004.

² Data Sources: 2003 Survey - Medicines in Development for Cancer. <http://www.phrma.org/newmedicines/resources/2003-05-12.109.pdf>.
2003 Survey - Medicines in Development for Heart Disease and Stroke. <http://www.phrma.org/newmedicines/resources/2003-02-11.104.pdf>.

³ Data Source: The Drug Discovery, Development and Approval Process. Medicines in Development for Cancer/infectious Disease 2004. <http://www.phrma.org/newmedicines/resources/2004-04-22.130.pdf>.

⁴ The cost of running a test is very conservatively assumed to be \$40. Only the cost of blood samples is factored into this model as a concrete comparison indicative of the magnitude of market size.

Exhibit 2b. Market Growth Trend

Explanation	Inflation/Growth Rate for Medical Costs:	\$ in Millions					
		2004	2005	2006	2007	2008	2009
<i>q</i>	5%						
$r=r*(1+q)$		1.00	1.05	1.10	1.16	1.22	1.28
$s=n*k*r$	Upper Limit of Market Size Per Drug	\$ -	\$ 2,652.63	\$ 2,785.26	\$ 3,098.43	\$ 3,253.35	\$ 3,416.02
<i>t</i>	Market Share of Clinical Trial Testing Per Drug	5%	10%	20%	40%	55%	75%
$u=s*t$	Projected Theranos Revenue per Drug	\$ -	\$ 265.26	\$ 557.05	\$ 1,239.37	\$ 1,789.35	\$ 2,562.02

Assumptions

- The number of new drugs undergoing respective clinical trial phases 1, 2 or 3 in row *c*, are assumed to be distributed in proportion to the average statistics of past data in row *c*.
- The no. of patients in the respective phases of clinical trials in row *d*, is assumed to be the mid-point of the range provided in
- The price of Theranos device is assumed to be 15% of the cost of the current lab tests that it is replacing in row *j*.
- The market size for Theranos product is simply the total number of tests per year multiplied by the assumed price of Theranos product.
- The market share of Theranos product is assumed to be an increasing % (in row *t*) of the clinical trial dosage testing market.

Exhibit 3a. Potential Market Size for Theranos Patch PER DRUG

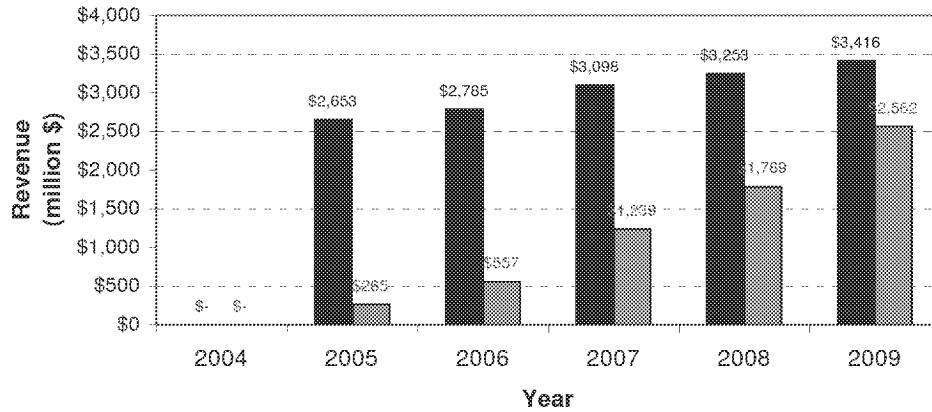


Exhibit 3b. Sensitivity Analysis of Price on Initial Market Size

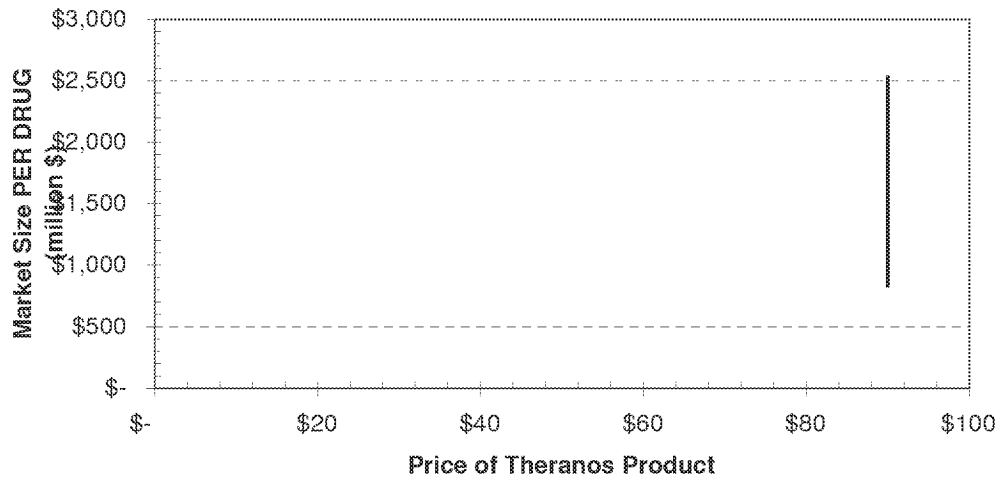


Exhibit 3c. Sensitivity Analysis of Price on Market Size

% Current Costs	Price of Theranos Product	Current Market Size	Theranos Revenue
	\$ 90	\$ 2,526.32	\$ 1,515.79
20.0%	\$ 90.00	\$ 842.11	\$ 168.42
22.5%	\$ 90.00	\$ 947.37	\$ 213.16
25.0%	\$ 90.00	\$ 1,052.63	\$ 263.16
27.5%	\$ 90.00	\$ 1,157.90	\$ 318.42
30.0%	\$ 90.00	\$ 1,263.16	\$ 378.95
32.5%	\$ 90.00	\$ 1,368.42	\$ 444.74
35.0%	\$ 90.00	\$ 1,473.68	\$ 515.79
37.5%	\$ 90.00	\$ 1,578.95	\$ 592.11
40.0%	\$ 90.00	\$ 1,684.21	\$ 673.68
42.5%	\$ 90.00	\$ 1,789.47	\$ 760.53
45.0%	\$ 90.00	\$ 1,894.74	\$ 852.63

It is assumed that demand from Theranos's customers does not vary much with price for this range of prices.

Theranos
Revenue Predictions

Exhibit C

Pharmaceutical Development Contracts

One time Installation and Customization Fee per pharmaceutical customer:
\$ 7,790,000.00

ABCS Units	Unit Price
500	2500
1000	2500
5000	1500
10,000	1000
25,000	750
50,000	550
100,000	550

ABCS	Revenue/Month
500	\$ 1,250,000.00
1000	\$ 2,500,000.00
5000	\$ 7,500,000.00
10,000	\$ 10,000,000.00
25,000	\$ 18,750,000.00
50,000	\$ 27,500,000.00
100,000	\$ 55,000,000.00

Production

Number of Readers	Cost* -70% margin
500	\$10,000.00
1000	\$5,833.33
5000	\$2,500.00
10,000	\$2,083.33
25,000	\$1,633.33
50,000	\$1,350.00
100,000	\$1,101.67

* Assumes COGS of \$500 for the first 10,000 units

* Assumes cost of \$400 for 10,000 to 25,000 units

* Assumes cost of \$320 for 25,000 to 50,000 units

* Assumes cost of \$256 at 100,000 units

** Margin includes development costs

** Reader price is amortized over first 100,000 readers

** Significant COGS Reductions Planned for Q3 2006

Readers	Revenue
500	\$5,000,000.00
1000	\$5,833,333.33
5000	\$12,500,000.00
10,000	\$20,833,333.33
25,000	\$40,833,333.33
50,000	\$67,500,000.00
100,000	\$110,166,666.67

Readers	Cartridges	Revenue*
500	100,000	\$3,000,000
1000	200,000	\$6,000,000
5000	1,000,000	\$20,000,000
10,000	2,000,000	\$35,000,000
25,000	5,000,000	\$80,000,000
50,000	10,000,000	\$140,000,000
100,000	20,000,000	\$240,000,000

* Assumes \$30 selling cost for first 1,000,000 Cartridges

* Assumes \$15 selling cost from 2M-5M cartridges

* Assumes \$12 selling cost from 5M-10M cartridges

* Assumes \$10 selling cost from 10M-20M cartridges

Revenue for Ten Pharmaceutical Phase IV Trials:

\$ 1,087,166,666.67

