Citi 2012 Global Healthcare Conference
February 27, 2012

Cautionary Statement

This presentation contains "forward-looking statements," as that term is defined under the Private Securities Litigation Reform Act of 1995 (PSLRA), which statements may be identified by words such as "expects," "plans," "projects," "will," "may," "anticipates," "believes," "should," "intends," "estimates," "potential" and other words of similar meaning, including statements regarding our ability achieve high levels of growth, the potential for our products under development to be game-changing, the potential of our next generation prostate markers to reduce biopsies and increase detection of cancer, our ability to develop a lead Alzheimer's test and additional diagnostic products, the ability of our Alzheimer's diagnostic test to distinguish Alzheimer's disease from other dementias, our ability to develop certain therapeutics, new drugs and vaccines, our ability to develop, test and launch new products, the expected timing of the tests and trials relating to our products under development, the outcome of our clinical trials and that such outcomes will support commercialization, the expected size of the market for certain of our products under development, the potential benefits of our products under development, our ability to successfully develop and commercialize our product candidates such as simple blood tests for Alzheimer's and Parkinson's diseases, neurological disorders, lung, pancreatic, and other cancers and autoimmune diseases, as well as products for other markets such as urology, women's health, cardiology and infectious disease, our ability to identify or acquire rights to next generation prostate markers, and the timing of clinical trials and expected U.S. and European regulatory approvals for our product candidates and the commercial launch of our product candidates, as well as other non-historical statements. These forward-looking statements are only predictions and reflect our views as of the date they were made, and we undertake no obligation to update such statements. Such statements are subject to many risks and uncertainties that could cause our activities or actual results to differ materially from the activities and results anticipated in forward-looking statements, including risks inherent in funding, developing and obtaining regulatory approvals of new, commercially-viable and competitive products and treatments, general market factors, competitive product development, product availability, federal and state regulations and legislation, delays associated with development of novel technologies, unexpected difficulties and delays in validating and testing product candidates, the regulatory process for new products and indications, manufacturing issues that may arise, the cost of funding lengthy research programs, the need for and availability of additional capital, the possibility of infringing a third party's patents or other intellectual property rights, the uncertainty of obtaining patents covering our products and processes and in successfully enforcing them against third parties, and the possibility of litigation, among other factors, including all of the risks identified under the heading Risk Factors in our Annual Report on Form 10-K and other filings with the Securities and Exchange Commission.

Company Overview

- Opportunistic pharmaceutical and diagnostics company
- Focused on large, high growth markets
- Multiple game-changing opportunities
  - New platform to develop diagnostic tests for cancer, neurodegenerative diseases
  - New microfluidics system for rapid lab-quality test results
  - Gene up-regulation technology for new drugs, e.g. genetic diseases
  - New drugs for asthma, COPD and cystic fibrosis
  - Emerging markets pharmaceutical business
  - Acquired FineTech Pharmaceutical, Ltd in December, 2011, a profitable Israeli company that produces high value, high potency active pharmaceutical ingredients (API)
  - Investments in other hi-tech companies
- Cash, cash equivalents and marketable securities of approximately $87 million as of 9/30/11
- Net cash used for continuing operations - $7.6 million for the 9 months ended 9/30/11

OPKO

Rolapitant Overview

- **Rolapitant out-licensed in December 2010**
  - Licensed exclusive global rights for the development, manufacture and commercialization of rolapitant to Tesaro
    - Schering-Plough (S-P) divested to OPKO as an FTC condition for the S-P merger with Merck
    - Payments of up to $121MM
    - Double digit tiered royalties in sales

- **Potentially a best-in-class cancer supportive care product candidate**
  - Potent and long-acting neurokinin-1(NK-1) receptor antagonist with a rapid onset for chemotherapy-induced nausea and vomiting (CINV)
    - Differentiated profile compared to the competition

- **Phase 3 program initiated following positive Phase 2 results**
  - Efficacy and dose identified in a randomized Phase 2 clinical trial (n=454)
    - Promising five-day activity following a single oral dose in cancer patients treated with highly emetogenic chemotherapy (HEC)
  - Over 1,000 patients and healthy volunteers evaluated in Phase 1 and 2
  - Well accepted regulatory endpoints and clinical trial designs
    - Three global Phase 3 studies ongoing; 2 HEC (n=530) and 1 MEC (n=1350)

Rolapitant Market Opportunity

- **Co-administration of NK-1 and 5-HT3 receptor antagonists provides improved control of acute and delayed CINV over the entire 5 day at-risk period**

- **U.S. market opportunity of ~ $1.25 billion**
  - 6.5+ million annual CINV patient treatments in 2011
  - NCCN and ASCO guideline recommendations could lead to 70% penetration by the NK-1 RA class
    - Common regimens utilized for breast, lung, and other highly prevalent cancers

- **Competition**
  - Merck - EMEND® (aprepitant & fosaprepitant)
    - Oral Aprepitant 3-day regimen launched 2003 – 45% market share
    - IV fosaprepitant 150 mg launched 2H 2010 – 55% market share
  - Development competition
    - Eisai / Helsinn: oral only, netupitant-palonosetron combination (Phase 3)
- **Strong IP portfolio with U.S. exclusivity expected through 2028**
  - Patent expiration 2023 + potential 5 year Hatch Waxman extension

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AntagoNAT — Natural Antisense Transcript Inhibitors

- Chemically modified single-strand oligonucleotide
- Up-regulates expression of endogenous functional proteins
- Extensive screening of over 400 gene targets
- Demonstrated up-regulation of genes related to orphan diseases, cancers, neurological & metabolic disorders
- Animal studies confirmed increases of
  - Target mRNA
  - Proteins expressed by the target gene
- 8 AntagoNATs have been tested in animals

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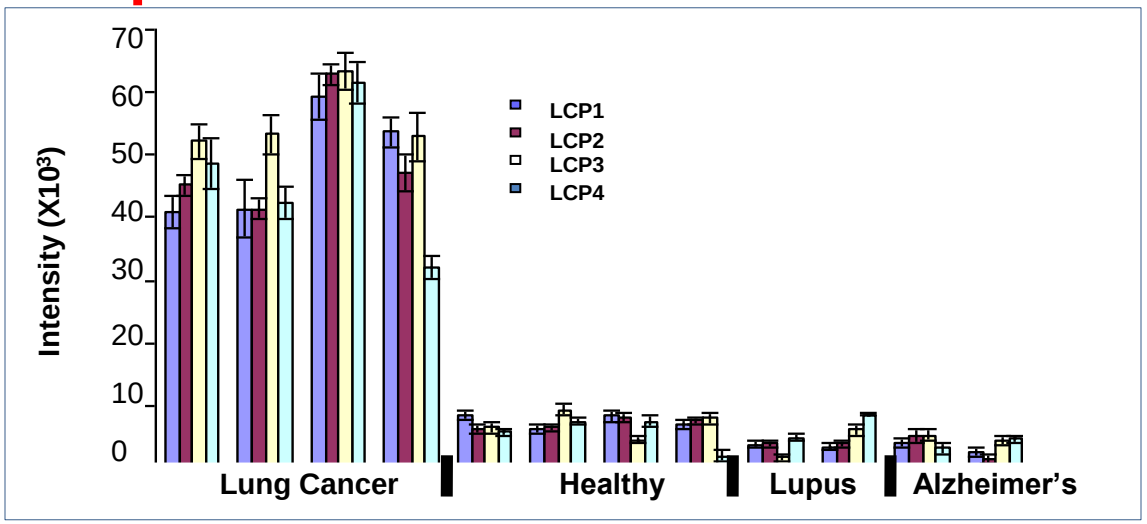
Molecular Diagnostics

- Innovative platform technology for the discovery of disease-specific antibodies
- Initially targeting diseases for which there are no definitive blood tests
- Simple tests for Alzheimer's, Parkinson's Diseases, multiple forms of cancer and other conditions
- Non-exclusive collaboration with BMS for lead Alzheimer's test
- Technology permits development of new drugs and vaccines
- Ongoing trials to support commercialization

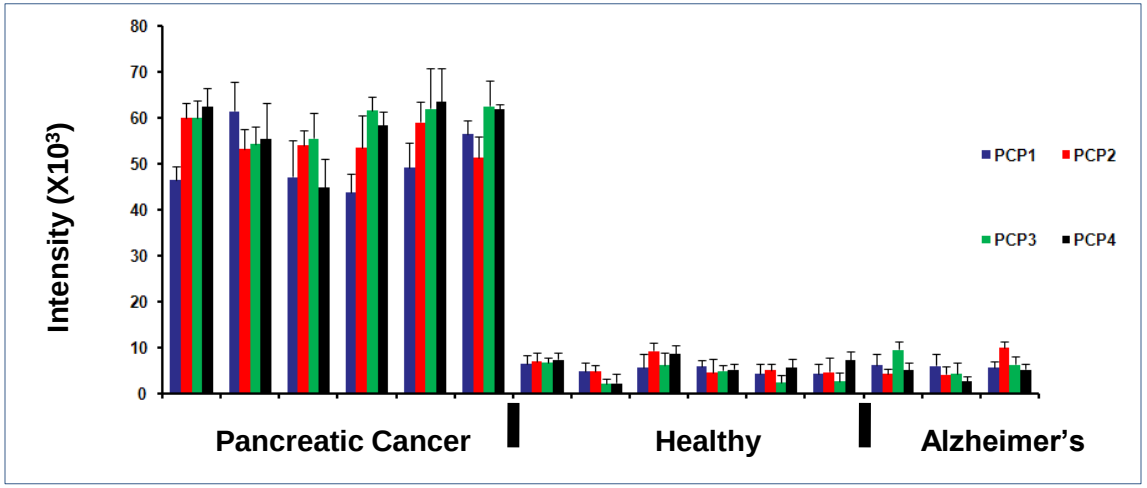
Discovery of Specific Antibodies For Cancer Diagnosis

Simple Blood Tests

Four peptoids found to distinguish NSCLC patients in an initial study



Four peptoids found to distinguish Stage I pancreatic cancer patients in an initial study



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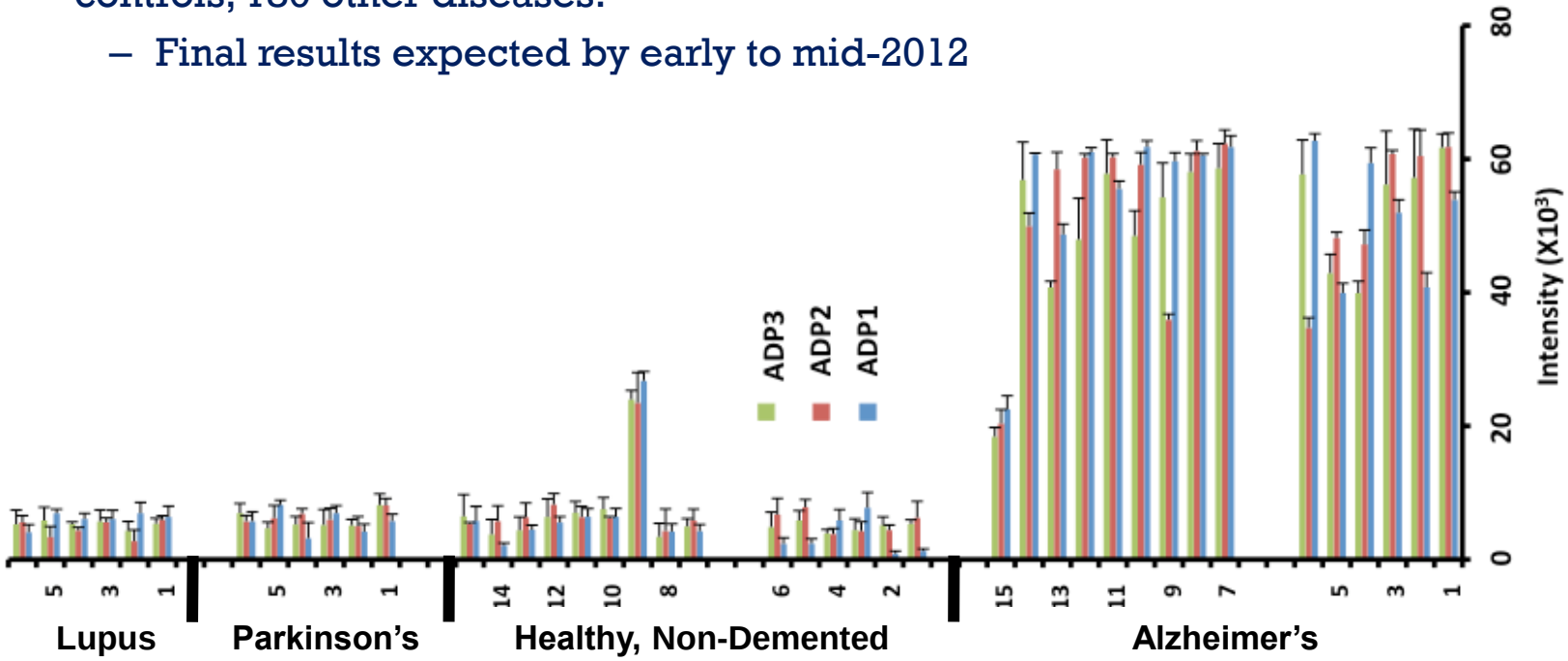
Alzheimer's Disease

- Three molecules identified that distinguish Alzheimer's patients from age-matched controls
- ADP1 and ADP3 bind antibodies distinct from those bound by ADP2, i.e., two AD-specific autoantibodies have been discovered
- Ongoing validation study with positive initial results (140 samples)
- Conducting 580 patient sample validation study – 200AD, 200 matched controls, 180 other diseases.
  - Final results expected by early to mid-2012



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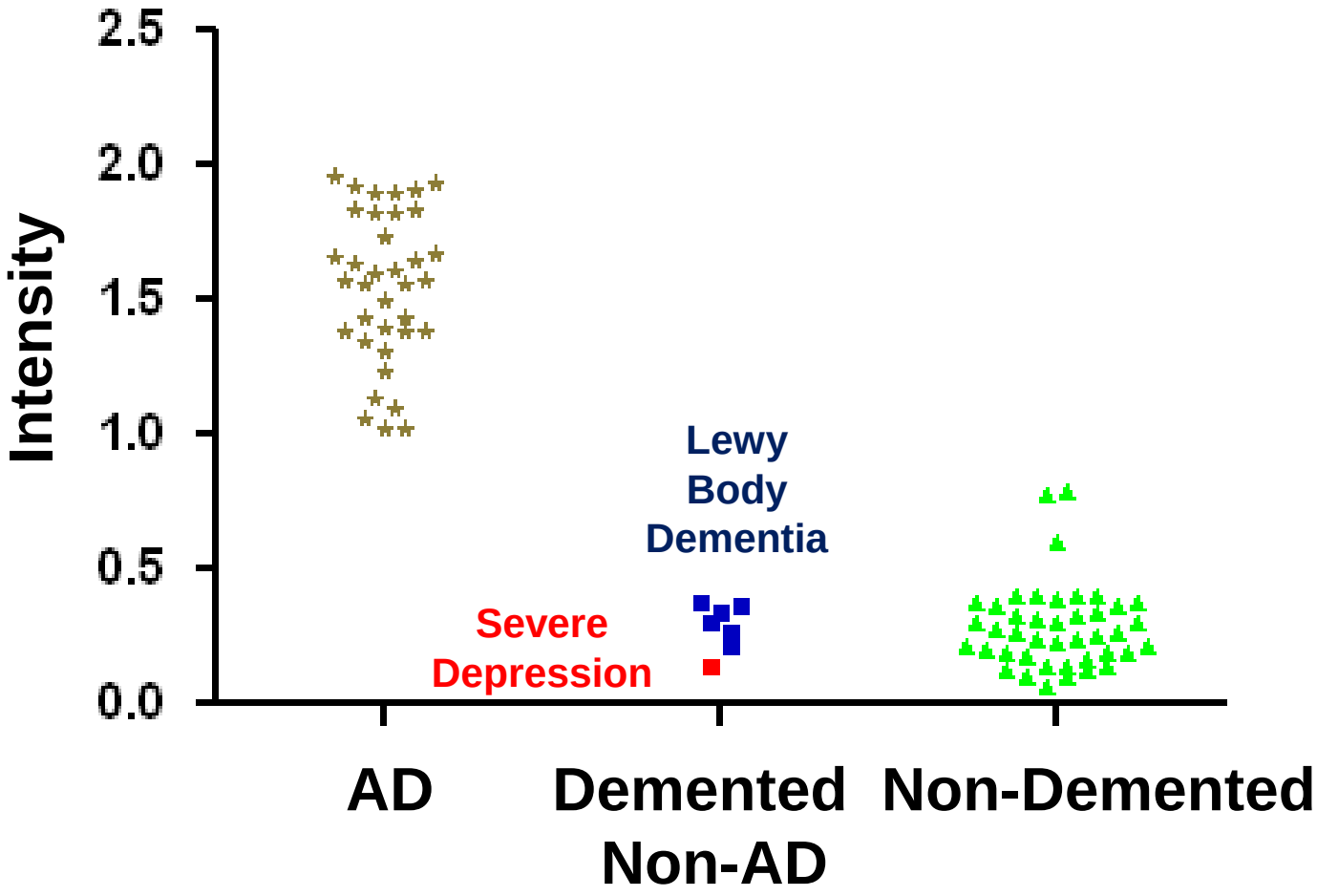
ELISA Study of 106 Plasma Samples: Agreement With Clinical Diagnosis



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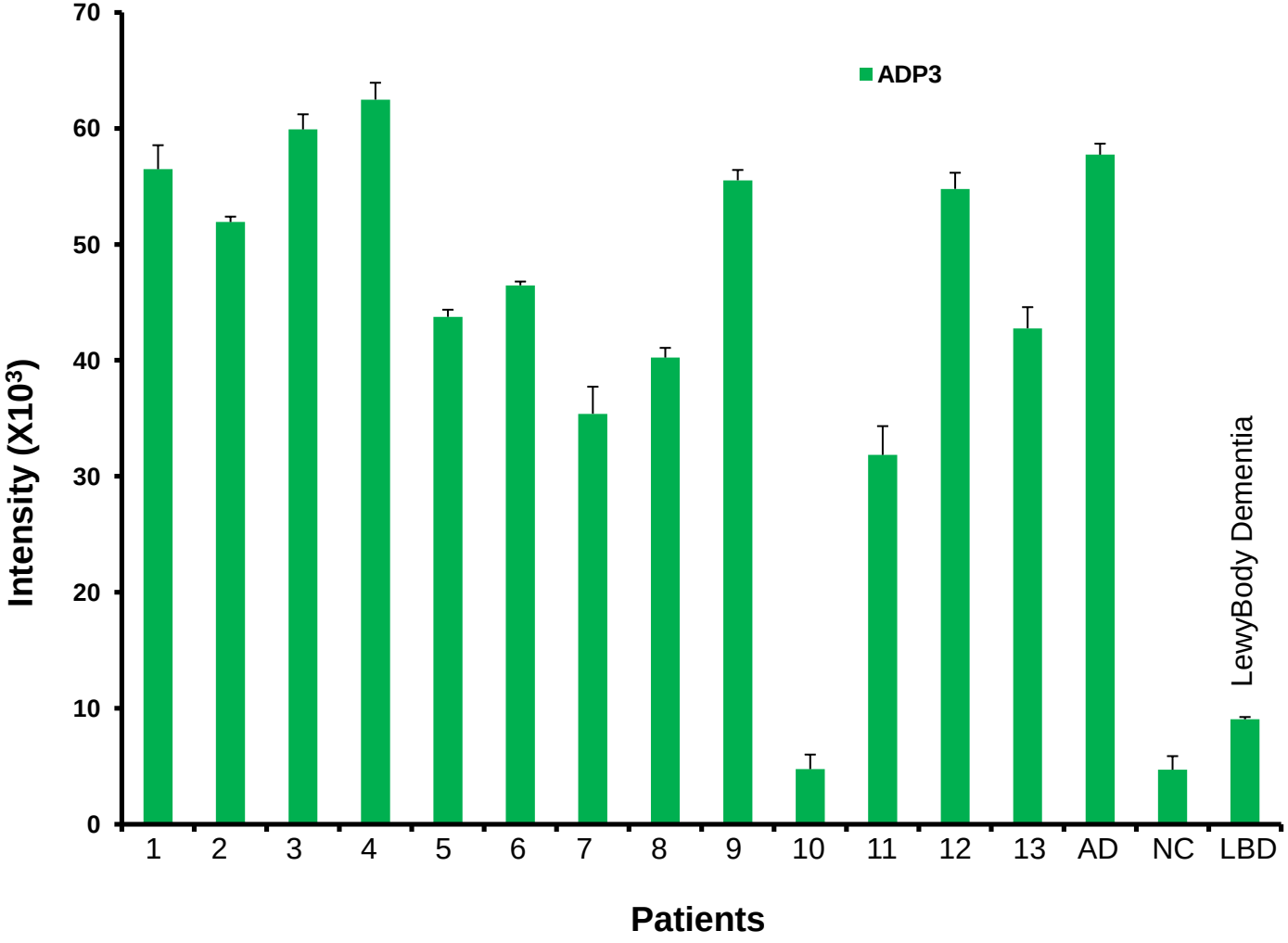
Early Diagnosis in MCI Patients



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Summary of Molecular Diagnostics Work

- A commercially viable blood test for Alzheimer's disease (AD)
- Test appears to distinguish AD from other dementias. Preliminary results indicate high sensitivity for early (MCI) stage AD
- Lung and pancreatic cancer markers undergoing validation trials
- Powerful, second generation discovery technology developed

OPKO Diagnostics Platform

- ***Product:*** **Immunoassay System Yielding Rapid Lab-Quality Quantitative Test Results with Finger Stick Drop of Blood (OPKO Dx Card)**

- ***Technology***
  - **Acquired Claros Diagnostics in October 2011**
  - **Proprietary Microfluidics and Amplification Chemistry**
  - **Pre-loaded Reagents on a Disposable Cassette**
  - **Sensitive Single Marker or Multiplex Assays**
  - **Inexpensive Analyzer**

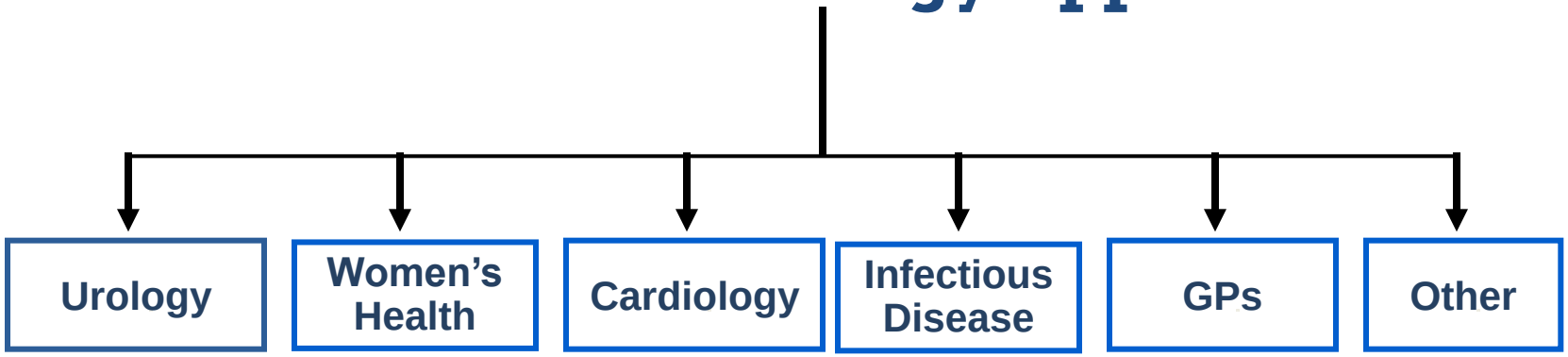
- ***Initial Target Applications:*** **Urology / CE Mark Approval in Europe/US Clinical Trial Commenced – US approval expected in 2012**

- ***Speciality Tests:*** **Vitamin D**

- ***OPKO Molecular Diagnostic Tests Applications***

- ***Strong IP Portfolio***

OPKO Dx Card Technology Applications



Urologist Office	Ob/Gyn Office	Emergency Room	Clinic and Blood Bank	GP Office
PCa Panel: • total-PSA • free-PSA • Testosterone • Novel Markers	**Panel Tests:** • Pre-term bleed • Fertility • Menopause	**Cardio Panel:** • CTnI • BNP • D-dimer	**STD Panel:** • HIV • Hepatitis B • Syphilis	**Key Tests:** • TSH, T4 • Vitamin D • Folic Acid

Liquid Sample Capabilities		
Whole Blood	**Semen**	**Spinal Fluid**
Serum	**Saliva**	**Tears**
Urine	**Amniotic Fluid**	**Sweat**

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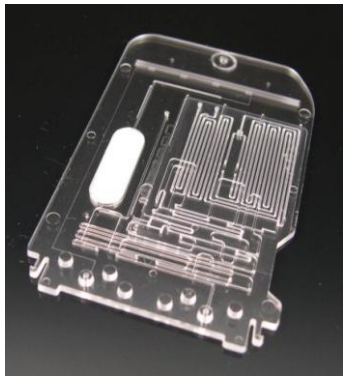
Overview of OPKO Diagnostics Technology

Key Attributes – High Quantitative Performance / Low Cost

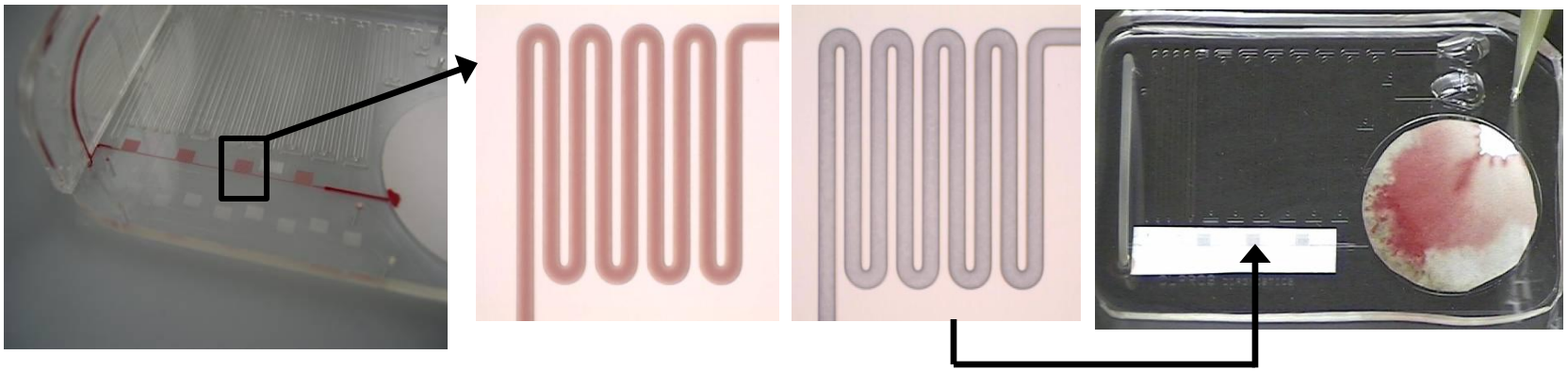
- **Inexpensive Disposable**
  - Injection-Molded Microfluidics
  - On-Board Delivery of Multiple Reagents
  - Multiplex Platform



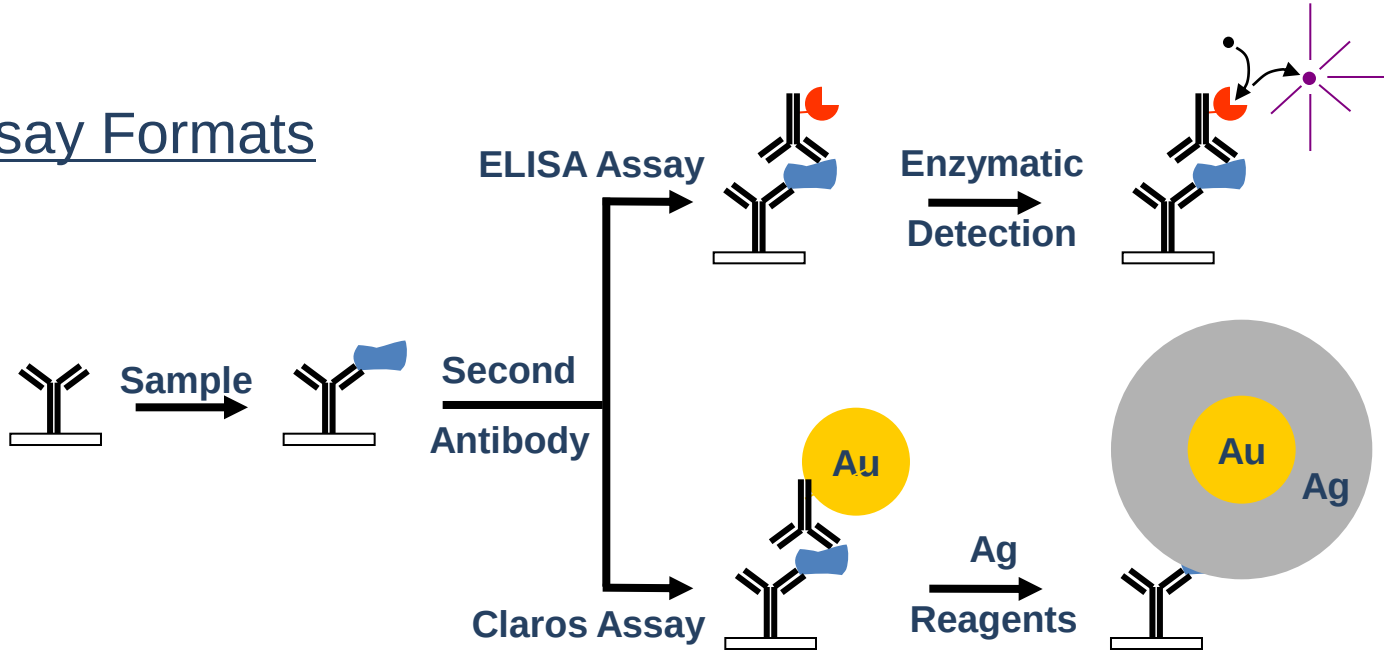
- **Robust Signal Detection**
  - Sensitive Proprietary Amplification Chemistry for Microfluidics
- **Inexpensive Hardware Unit (OPKO Dx Reader)**
  - Reliable Standard Optics
- **Ease of Use and Safety**
  - No Sample Prep
  - User-Friendly Sample Introduction
  - Biohazard Containment

OPKO Diagnostics Platform

Sandwich Immunoassays in Microfluidics



Assay Formats

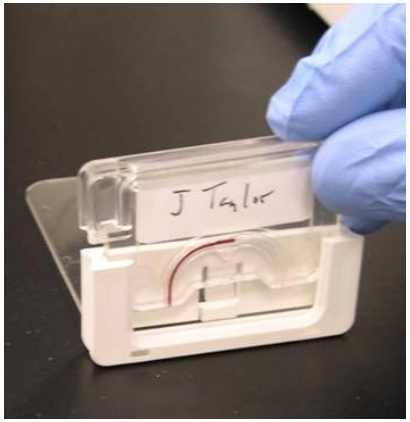


ELISA: Enzyme-Linked Immunosorbent Assay

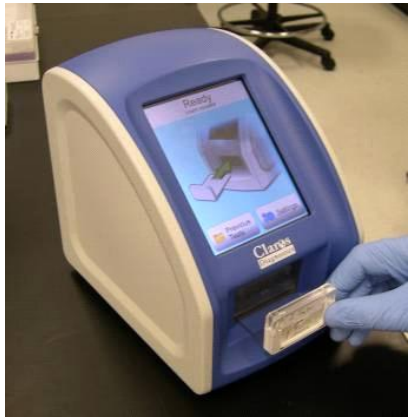
Easy to Use

1. Collect Blood

2. Snap into Cassette



3. Insert into OPKO Dx Reader



4. Read Results in less than 10 minutes

Award Winning Technology

The 50 Most Innovative Companies 2011

technology review
Published by MIT

Amazon
Apple
ARM
Claros
Facebook
Google
Roche
Twitter
Zynga
…

TR COMPANY PROFILE

Claros Diagnostics

Why: Simple, fast diagnostic tests can help physicians track disease-related markers.

Key Innovation: Its microfluidic device for doctors' offices can quickly detect elevated protein levels associated with prostate cancer.

Technology:

Claros uses microfluidics technology, which allows for the manipulation of fluids on a chip of microscopic scales, to develop inexpensive, easy-to-use diagnostic devices that can be deployed at the point of care, whether in a doctor's office of at a patient's bedside. Tests that get results quickly without having to be sent out to a lab for analysis would allow physicians to track certain disease-related markers more often and more thoroughly.

Market:

The market for point-of-care diagnostics could potentially be huge because of the benefits it offers. Patients benefit from getting results at the time of their visit, doctors and insurers benefit from a less complicated process with less overhead.

Strategy:

Claros' platform consists of a small blood-collector device, a disposable cartridge, and a toaster-sized reader. The technology can be adapted to test for any number of diseases, but its first commercial product is designed to detect elevated protein levels associate with prostate cancer. The company's technology is also being used in a pilot project in Africa that provides testing for sexually transmitted diseases such as syphilis, HIV, and hepatitis C.

Challenges and Next Steps:

Claros' prostate-cancer test has been approved for use in Europe, and the company is currently seeking approval to market it from the U.S. Food and Drug Administration.

Inventing New Technologies and Markets

Our second annual list of the world's most innovative technology companies highlights businesses whose work is changing industries and lives.

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OPKO Diagnostics
2012 Plans

- Urology
  - International Launch
  - U.S. FDA Trial Completion / Filing
  - Menu Build-Out
  - Proprietary Next Generation Prostate Markers
  - ≅70 Million WW Tests Per Year ≅ $2 Billion Market
- Vitamin D
  - EU Approval Expected in 2012
  - U.S. Approval Expected in 2013
  - Complementary Multiplex Panel Potential
  - ≅100 Million WW Tests Per Year ≅ $5 Billion Market
- Alzheimer's
- Other Strategic Initiatives

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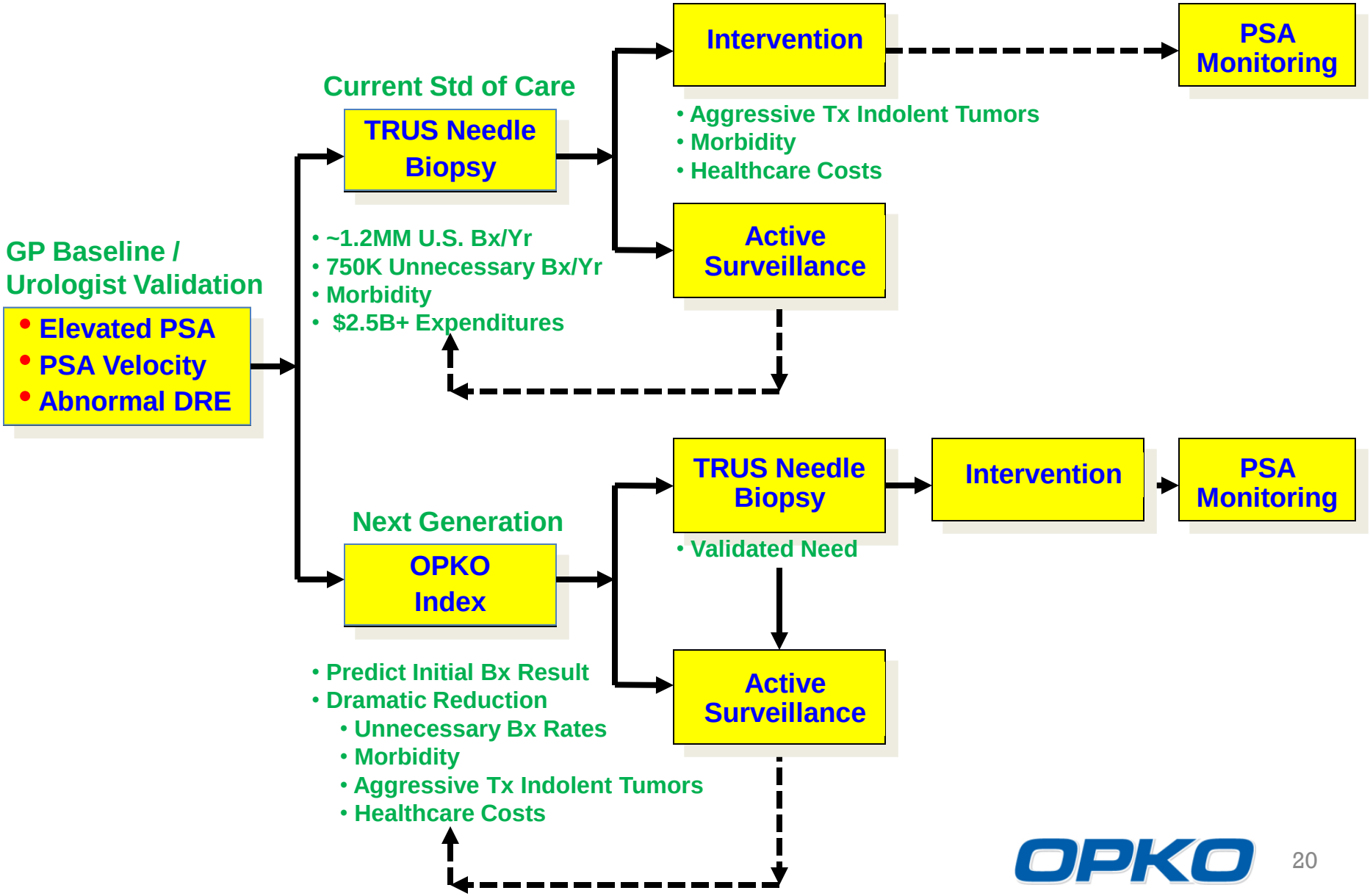
OPKO Diagnostics

Next Generation Prostate Cancer Index



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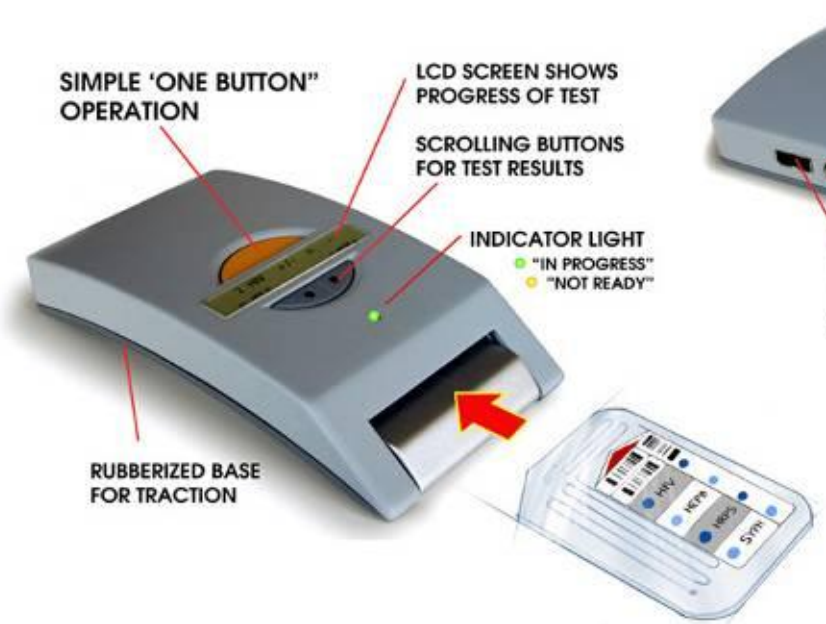
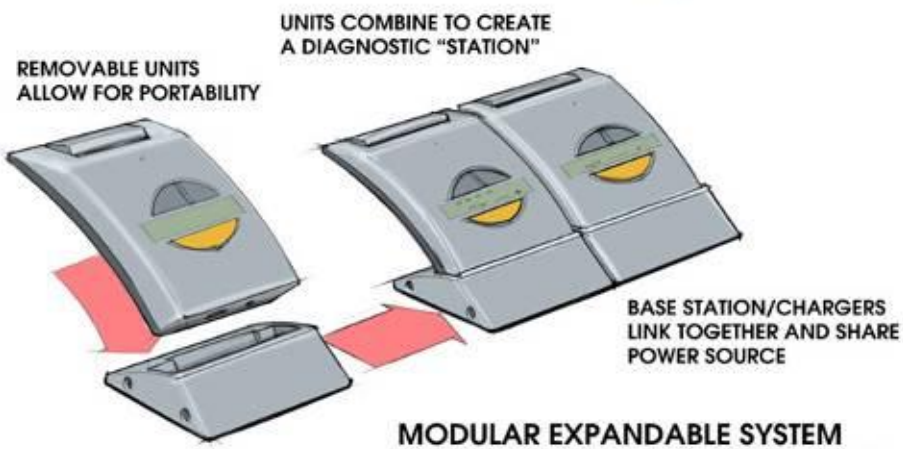
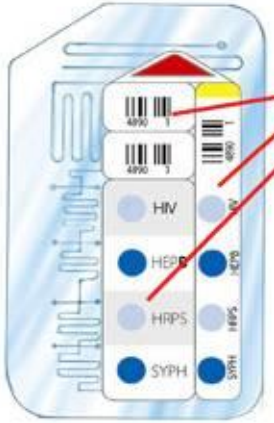
OPKO Diagnostics: Industrial Design / Application Flexibility



PORTABLE UNIT
ALLOWS OFF SITE TESTING



MODULAR EXPANDABLE SYSTEM
FOR ADDITION THROUGHPUT AND FUTURE TESTING (PROTEIN/CULTURE/CELL COUNT/ETC.)



PEEL OFF LABELS
FOR PATIENT/CLINIC RECORD KEEPING

- INDICATES DIRECTION TO INSERT CARD
- CROSS LANGUAGE OPERATION
- HEAT SENSITIVE LABEL ENSURES ACCURATE RECORDS
- BAR CODES FOR PRIVACY IN STATISTICAL REPORTING

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OPKO Emerging Markets

OPKO Chile — Pharma Genexx, S.A.

- Rapidly growing sales from >100 products
- Revenues: $17.5 MM and $13.7 MM for first nine months 2011and 2010, respectively

OPKO Mexico — Pharmacos Exakta S.A. de C.V.

- >25 products across a range of therapeutic indications
  - Primarily branded ophthalmics, with expanding proprietary focus
- Revenues: $4.6 MM and $2.6 MM for first nine months 2011 and 2010, respectively

Strategic Investments

Proprietary technologies with significant upside potential

CoCrystal Discovery, Inc. (~16% equity interest*)

- Founded by Nobel Laureate, Roger Kornberg, Ph.D.
- New approach to develop broad spectrum anti-viral drugs
- Development program with Teva for Hepatitis C virus and other targets

Sorrento Therapeutics (~23% equity interest*)

- New technology to produce human monoclonal antibodies libraries that are more complete and more efficient

Fabrus, LLC (~13% equity interest*)

- Next gen technology to identify therapeutic antibody targets
- Founded by Vaughn Smider, M.D., Ph.D. Assistant Professor of Molecular Biology, The Scripps Research Institute

Tesaro, Inc. (~2% equity interest*)

- Oncology-focused biopharmaceutical company
- Founded by former executives of MGI Pharm

Neovasc, Inc. (~ 4% equity interest*)

- Developing innovative vascular devices
  - Reducer™ for refractory angina undergoing multicenter clinical trial
  - Tiara™ pre-clinical novel transcutaneous mitral valve

ChromaDex, Inc. (~1% equity interest)

- Dietary supplement BlueScience and antioxidant pterostilbene pTeroPure
- OPKO distribution rights in Latin America

OPKO

* As of September 30, 2011