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**UNITED STATES**
**SECURITIES AND EXCHANGE COMMISSION**
**Washington, D.C. 20549**

# FORM 8-K

**CURRENT REPORT**
**PURSUANT TO SECTION 13 OR 15(d) OF THE**
**SECURITIES EXCHANGE ACT OF 1934**

**Date of report (Date of earliest event reported): January 14, 2008**

# ADVENTRX Pharmaceuticals, Inc.

(Exact Name of Registrant as Specified in Charter)

| **Delaware** | **001-32157** | **84-1318182** |
|---|---|---|
| (State or Other Jurisdiction of Incorporation) | (Commission File No.) | (IRS Employer Identification No.) |

**6725 Mesa Ridge Road, Suite 100**
**San Diego, CA 92121**
(Address of Principal Executive Offices and Zip Code)

**N/A**
(Former name or former address if changed since last report)

Registrant's telephone number, including area code: **(858) 552-0866**

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions:

o Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)

o Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)

o Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))

o Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

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**Item 8.01. Other Events.**

On January 14, 2008, ADVENTRX Pharmaceuticals, Inc. ("ADVENTRX") updated aspects of its corporate presentation as reflected in the slides attached as Exhibit 99.1 to this Current Report on Form 8-K (the "Report"), which slides are incorporated herein by reference. Evan M. Levine, Chief Executive Officer of ADVENTRX, and other ADVENTRX executives will present the information reflected in the slides attached as Exhibit 99.1 to this Report commencing January 14, 2008 at various investor and analyst meetings.

**Item 9.01. Financial Statements and Exhibits.**

(d) Exhibits.

The list of exhibits called for by this Item is incorporated by reference to the Index to Exhibits filed with this report.

Forward Looking Statements

ADVENTRX cautions you that statements information included in the slides attached hereto as Exhibit 99.1 that are not a description of historical facts are forward-looking statements that involve risks and assumptions that, if they materialize or do not prove to be accurate, could cause ADVENTRX's results to differ materially from historical results or those expressed or implied by such forward-looking statements. These risks and uncertainties include, but are not limited to: the risk that ADVENTRX will be unable to raise sufficient capital to fund the projects necessary to meet its anticipated or stated goals and milestones; the risk that preclinical results are not indicative of the success of subsequent clinical trials and the results of pending clinical trials; the risk the FDA determines ADVENTRX's product candidates are not bioequivalent to the applicable reference product; difficulties or delays in manufacturing, marketing and obtaining regulatory approval for ADVENTRX's product candidates; the potential for regulatory authorities to require additional preclinical work or other clinical requirements to support regulatory filings; the scope and validity of patent protection for ADVENTRX's product candidates; patent and non-patent exclusivity covering Navelbine® and Taxotere®; and other risks and uncertainties more fully described in ADVENTRX's press releases and periodic filings with the Securities and Exchange Commission. ADVENTRX's public filings with the Securities and Exchange Commission are available at http://www.sec.gov.

You are cautioned not to place undue reliance on these forward-looking statements, which speak only as of the date when made. ADVENTRX does not intend to update any forward-looking statement included in the slides attached hereto as Exhibit 99.1 to reflect events or circumstances arising after the date on which it was made. This caution is made under the safe harbor provisions of Section 21E of the Securities Exchange Act of 1934.

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**SIGNATURE**

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, hereunto duly authorized.

**ADVENTRX Pharmaceuticals, Inc.**

Dated: January 14, 2008

By: /s/ Evan M. Levine
Name: Evan M. Levine
Title: Chief Executive Officer

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INDEX TO EXHIBITS

99.1 Presentation slides

Exhibit 99.1

# ADVENTRX PHARMACEUTICALS

*Refining therapies for life*

*AMEX: ANX*

# Safe Harbor Statement

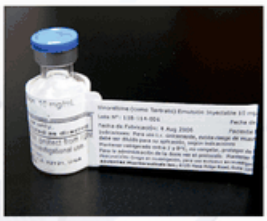
ADVENTRX cautions you that statements included in this presentation that are not a description of historical facts are forward-looking statements that involve risks and assumptions that, if they materialize or do not prove to be accurate, could cause ADVENTRX's results to differ materially from historical results or those expressed or implied by such forward-looking statements. These risks and uncertainties include, but are not limited to: the risk that ADVENTRX will be unable to raise sufficient capital to fund the projects necessary to meet its anticipated or stated goals and milestones; the risk that preclinical results are not indicative of the success of subsequent clinical trials and the results of pending clinical trials; the risk the FDA determines ADVENTRX's product candidates are not bioequivalent to the applicable reference product; difficulties or delays in manufacturing, marketing and obtaining regulatory approval for ADVENTRX's product candidates; the potential for regulatory authorities to require additional preclinical work or other clinical requirements to support regulatory filings; the scope and validity of patent protection for ADVENTRX's product candidates; patent and non-patent exclusivity covering Navelbine® and Taxotere®; and other risks and uncertainties more fully described in ADVENTRX's press releases and periodic filings with the Securities and Exchange Commission. ADVENTRX's public filings with the Securities and Exchange Commission are available at http://www.sec.gov. You are cautioned not to place undue reliance on these forward-looking statements, which speak only as of the date when made. ADVENTRX does not intend to update any forward-looking statement as set forth in this presentation to reflect events or circumstances arising after the date on which it was made.

ADVENTRX
PHARMACEUTICALS

# Mission

ADVENTRX is a biopharmaceutical research and development company focused on commercializing proprietary product candidates for the treatment of cancer and infectious diseases.

The Company seeks to improve the performance and safety of existing treatments by addressing significant problems such as drug metabolism, bioavailability, excessive toxicity and resistance.

ADVENTRX
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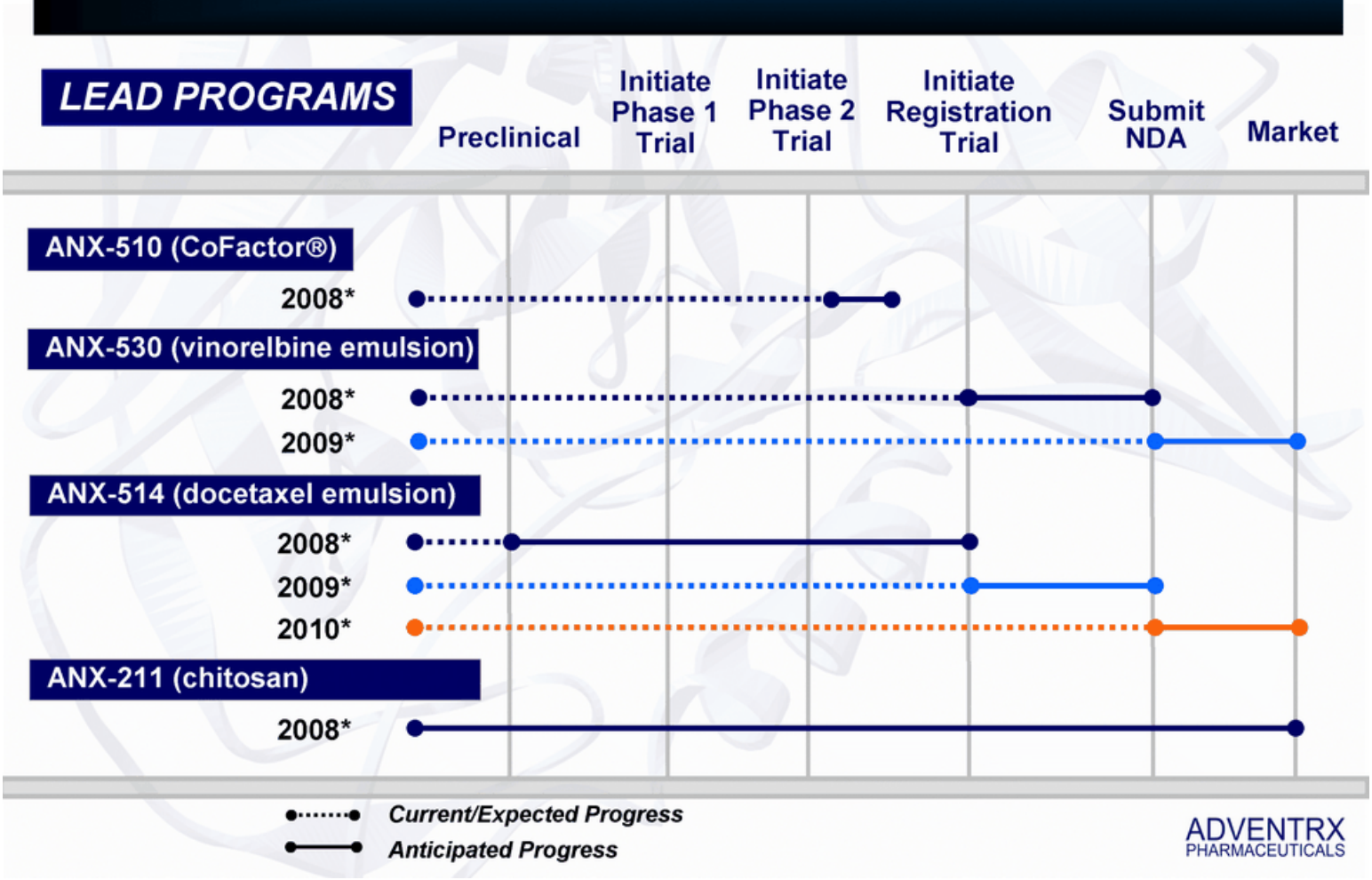
# ADVENTRX Pipeline and 2008 - 2010 Goals



# Oncology Focus

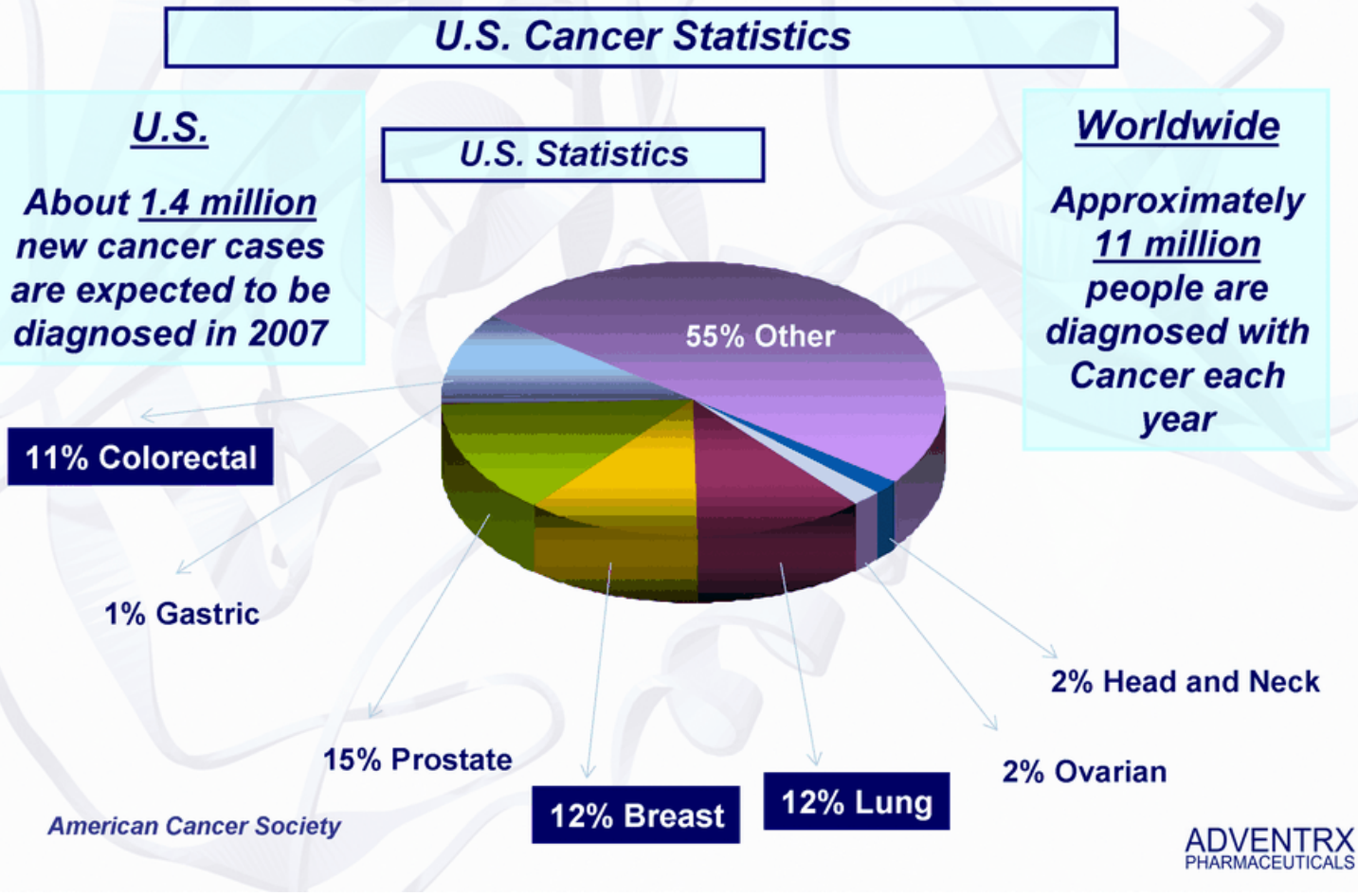
## U.S. Cancer Statistics

**U.S.**

***About 1.4 million new cancer cases are expected to be diagnosed in 2007***

**Worldwide**

***Approximately 11 million people are diagnosed with Cancer each year***




*American Cancer Society*

ADVENTRX PHARMACEUTICALS

# ANX-510 (CoFactor®)

***Folate-based biomodulator designed to replace leucovorin as the preferred method to enhance the activity and reduce associated toxicity of the widely used cancer chemotherapeutic agent 5-FU***

## CoFactor®

- **Phase 2b results indicated clinical equivalence of CoFactor/5-FU to Leucovorin/5-FU utilizing an infusional administration**
  - **Further analysis of the results uncovered no significant differences between the study arms with regard to either safety or efficacy**
- **Two clinical trials & preclinical studies have demonstrated superior efficacy & reduced toxicity against historical comparison of bolus administration of 5-FU**
- **Patient enrollment in Phase 3 study discontinued Nov. 2007**
- **Results from three CoFactor studies anticipated Q2 2008:**
  - ***Results from Phase 2 study of CoFactor for the treatment of advanced breast cancer (bolus)***
  - ***Overall survival results from Phase 2b study of CoFactor for the treatment of mCRC (infusion)***
  - ***Available data collected from Phase 3 study of CoFactor for the treatment of mCRC (bolus)***

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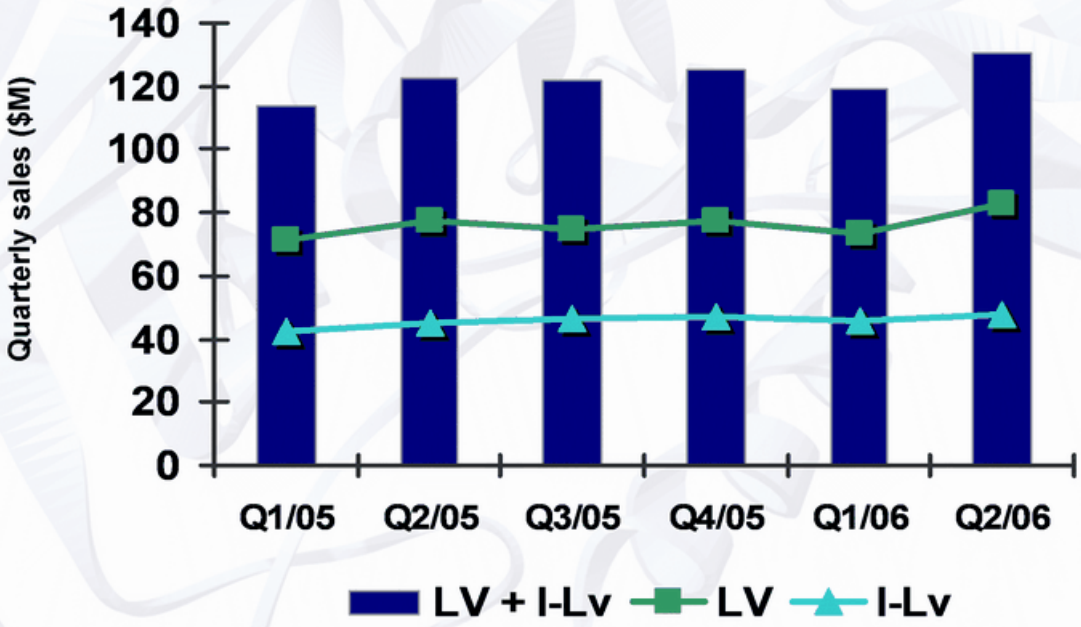
# Leucovorin Market

## Global Market > $500M for Leucovorin & Calcium Levofolinate (*l*-Lv)*




* all intravenous and oral forms included

Sources: IMS Health, Oncology, Inc.

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# Vinorelbine (Navelbine®)

## Vinorelbine (Navelbine®)

- Member of a well-studied class of anti-cancer drugs known as vinca alkaloids that work by disrupting microtubule formation which inhibits cellular replication and ultimately causes cell death
- Indicated as single agent or in combination with cisplatin for first-line treatment of unresectable advanced NSCLC (non-small cell lung cancer)
- Injection site reactions in approximately one-third of patients
- ***Vinorelbine poses administration challenges for nurses and patients***
  - High rate of chemical injections site reactions requires special administration protocol
    - RN time-intensive
      - RN must inject vinorelbine slowly over 10 minutes (instead of hanging a bag for drip infusion)
    - Pre- and post- injection fluids
      - Increase “chair time” for treatment without compensating reimbursement for these time elements
    - Invasive or costly central line frequently utilized to avoid vein irritation

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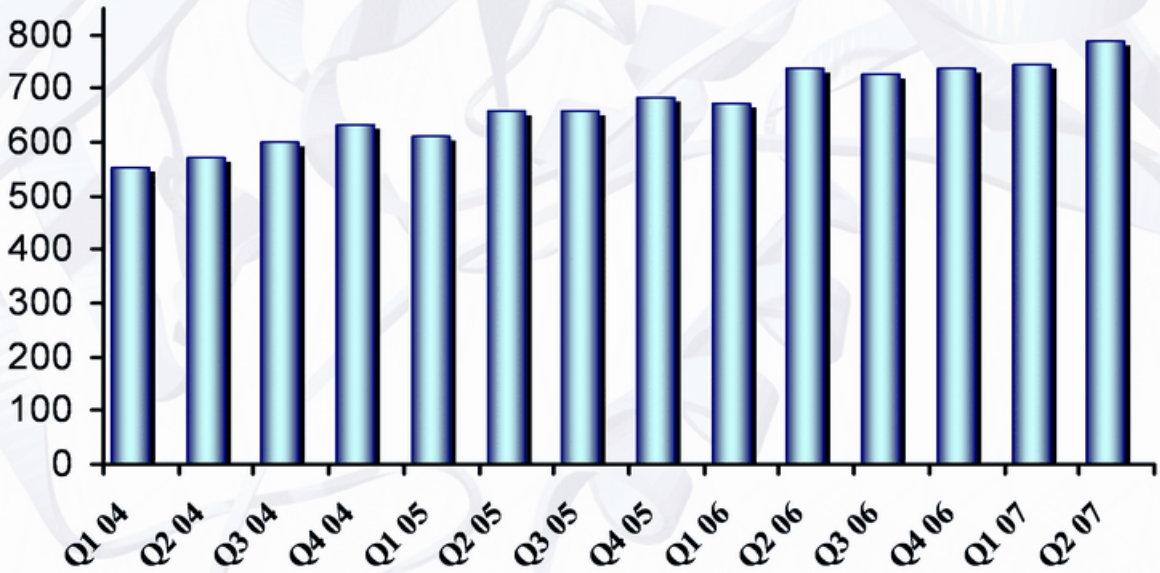
# Current Use of Vinorelbine

## Generic Vinorelbine Sales (2004-2007)

***Global annual sales in excess of $200M***



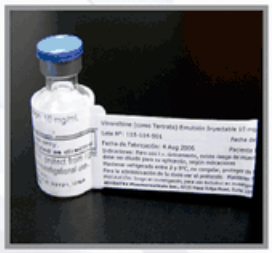

Source: IMS Health

ADVENTRX PHARMACEUTICALS

# ANX-530 (vinorelbine emulsion)

***New formulation of intravenous vinorelbine tartrate designed to reduce the incidence and severity of vein irritation***

## ANX-530 Advantages



- **Single marketing-enabling clinical study complete**
  - **Primary endpoint of pharmacokinetic equivalence between ANX-530 and Navelbine met**
  - **ANX-530 demonstrated *statistically significant reduction in injection site reactions* (when compared to Navelbine)**
  - **New Drug Application to be submitted to the FDA in Q4 2008**
- **Reduced injection site reactions with ANX-530 potentially averts administration problems & expenses**
  - Less patient discomfort and fewer resources used to manage discomfort
  - Development of a more nursing-friendly administration protocol
    - Less RN chair-side time
    - Potential for increased reimbursement for drip infusion vs. injection
  - Less need for placement of central line
    - (as would otherwise be placed to aid vinorelbine administration in presence of vein irritation)
- **Practice economics**
  - Potential for higher reimbursement, accommodating a price premium for ANX-530
  - Potentially fewer resources to avoid and manage side effects

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# Docetaxel (Taxotere®)

## Docetaxel (Taxotere®)

- **Antineoplastic agent that acts by binding to free tubulin and disrupting the microtubule network necessary for cellular division; approved for the treatment of breast, non-small cell lung, prostate, head and neck & gastric cancers**

## ***Docetaxel (Taxotere) Shortcomings***

- **Docetaxel *causes acute hypersensitivity*, a potentially fatal side effect (part of the black box warning on the product label)**
  - Hypersensitivity refers to undesirable (damaging, discomfort-producing and sometimes fatal) reactions produced by the normal immune system
  - Flushing, rash, pruritis (itching), fever, blood pressure decrease, dyspnea (shortness of breath)
    - **Occurs in 15-20% of patients (4-5% of reactions are severe)**
    - M.D.'s must pre-medicate the patients to address these reactions
      - Even with pre-medication, 8-10% of patients still have hypersensitivity reactions & 1-2% of patients experience severe hypersensitivity reactions
- **Pharmaceutically inelegant presentation**
  - Stability – Docetaxel must be administered within 4 hours of reconstitution
  - Compatibility – Docetaxel requires special IV bags & tubing due to incompatibility with formulation solvents and normal supplies

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# Taxotere (Docetaxel) Market

***Worldwide Taxotere market nearly $2.5 billion in 2006***
***U.S. Sales of ~ $920 Million***


**Taxotere Global Drug Sales 1999-2006**

*Source: Sanofi Aventis*

ADVENTRX PHARMACEUTICALS

# ANX-514 (docetaxel emulsion)

***New formulation of docetaxel formulated without polysorbate 80 or other detergents, designed to reduce the incidence and severity of hypersensitivity reactions***

## ANX-514 Advantages

- **FDA affirmed 505 (b)(2) regulatory path in the U.S.**
  - ***Single*** **study of 28 evaluable patients that demonstrates the bioequivalence of ANX-514 & docetaxel is sufficient clinical data to support filing an NDA**
- **Reduce Incidence & Severity of Hypersensitivity Reactions**
  - Particularly beneficial in certain special-need populations
    - Patients showing significant hypersensitivity to commercial formulation and for whom docetaxel is the best or only therapeutic option
    - Patients in whom steroid pre-medication is undesirable if avoidable, such as diabetic patients
- **Pharmaceutically Elegant**
  - Enhanced stability once reconstituted (48-hour) vs. 4-hour limit for Taxotere
  - Removal of polysorbate 80 eliminates requirements for special infusion bags and tubing to address compatibility problems with standard supplies
- **Potential 2 year lead time over generic Taxotere**
  - Docetaxel (API) Patent expires May 14, 2010
  - Taxotere (Docetaxel Formulation) Patent expires July 3, 2012

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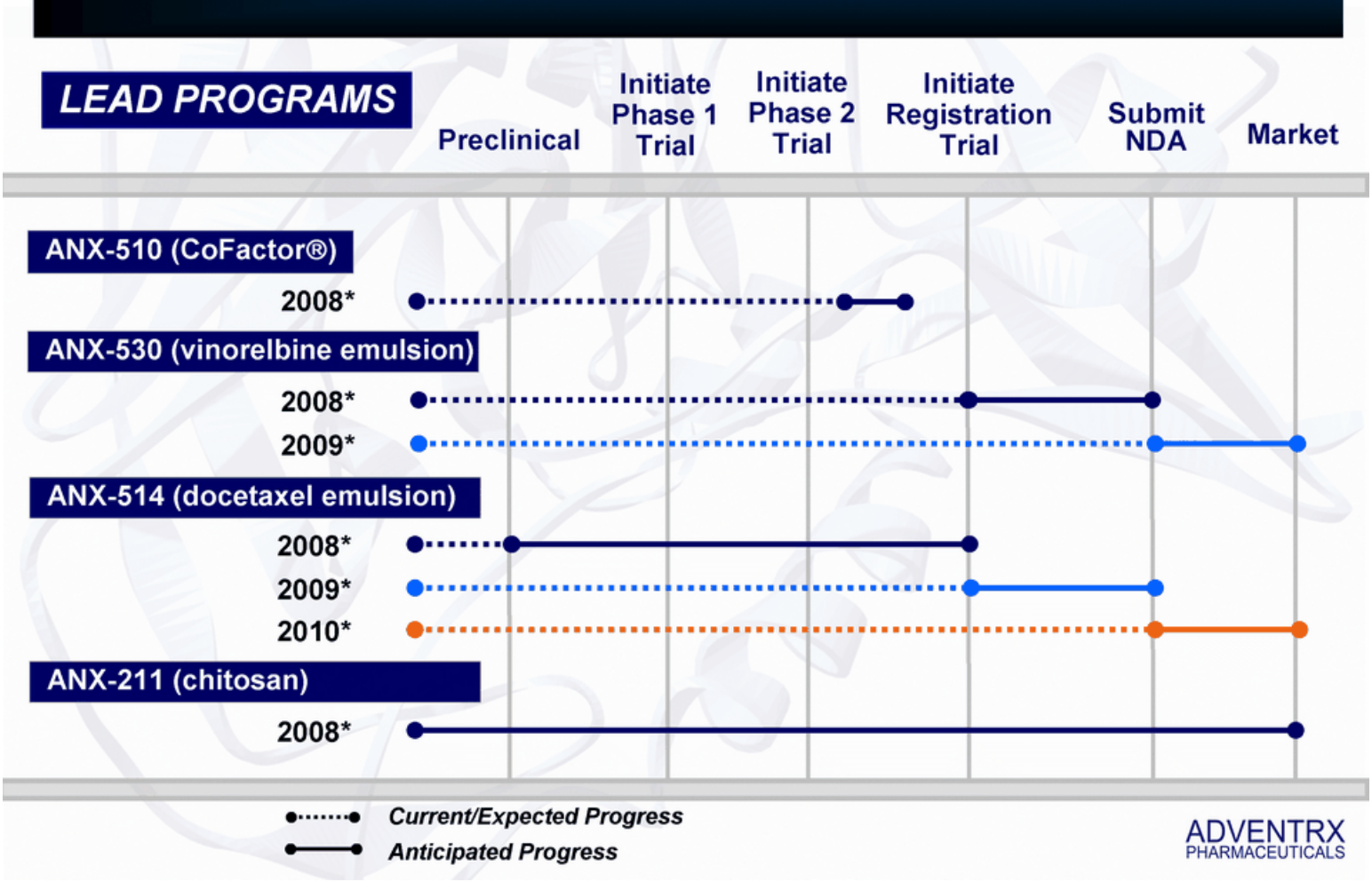
# ADVENTRX Pipeline and 2008 - 2010 Goals



# ADVENTRX PHARMACEUTICALS

*Refining therapies for life*

***AMEX: ANX***