



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): September 5, 2007

**ADVENTRX Pharmaceuticals, Inc.**

(Exact Name of Registrant as Specified in Charter)

**Delaware**  
(State or Other Jurisdiction of  
Incorporation)

**001-32157**  
(Commission File No.)

**84-1318182**  
(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**

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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:

- Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)
  - Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)
  - Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))
  - Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))
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**Item 7.01. Regulation FD Disclosure.**

Evan M. Levine, Chief Executive Officer of ADVENTRX Pharmaceuticals, Inc. (“ADVENTRX”), and other executive officers will present the information reflected in the slides attached as Exhibit 99.1 to this Current Report on Form 8-K (this “Report”) commencing September 5, 2007 at various investor conferences and analyst meetings.

The information in this Report, including the slides attached hereto as Exhibit 99.1, is being furnished pursuant to this Item 7.01 and shall not be deemed “filed” for purposes of Section 18 of the Securities Exchange Act of 1934 (the “Exchange Act”) or otherwise subject to the liabilities of that section, and it shall not be deemed incorporated by reference in any filing under the Securities Act of 1933 or under the Exchange Act, whether made before or after the date hereof, except as expressly set forth by specific reference in such filing to this Report.

By filing this Report and furnishing this information, ADVENTRX makes no admission as to the materiality of any information in this Report. The information contained in the slides is summary information that is intended to be considered in the context of ADVENTRX’s filings with the Securities and Exchange Commission (the “SEC”) and other public announcements that ADVENTRX makes, by press release or otherwise, from time to time. ADVENTRX does not intend and undertakes no duty or obligation to publicly update or revise the information contained in this Report, although it may do so from time to time as its management believes is appropriate. Any such updating or revision may be made through the filing of other reports or documents with the SEC, through press releases or through other public disclosure.

*ADVENTRX cautions you that information included in the slides attached hereto as Exhibit 99.1 that are not a description of historical facts constitutes forward-looking statements that involve risks and assumptions that, if they do 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: ADVENTRX’s ability to raise sufficient capital to fund the projects necessary to meet its anticipated or stated goals; the potential to attract a strategic partner and the terms of any related transaction; the ability to timely enroll subjects in ADVENTRX’s current and anticipated clinical trials; the results of pending clinical trials for ADVENTRX’s product candidates; the potential for ADVENTRX’s product candidates to receive regulatory approval for one or more indications, and the uncertain process of seeking regulatory approval; other difficulties or delays in developing, testing, manufacturing and marketing and obtaining regulatory approval for ADVENTRX’s product candidates; the market potential for ADVENTRX’s product candidates, and its ability to compete in those markets; unexpected adverse side effects or inadequate therapeutic efficacy of ADVENTRX’s products that could delay or prevent regulatory approval or commercialization; the risk that preclinical and clinical results are not indicative of the success of subsequent clinical trials and that products will not perform as preclinical and clinical data suggests or as otherwise anticipated; 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; 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>.*

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*You are cautioned not to place undue reliance on these forward-looking statements, which speak only as of the date when made. All forward-looking statements are qualified in their entirety by this cautionary statement. ADVENTRX does not intend and assumes no obligation to update or revise any forward-looking statement, including any information 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.*

### **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.

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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: September 5, 2007

By: /s/ Evan M. Levine

Name: Evan M. Levine

Title: Chief Executive Officer

**INDEX TO EXHIBITS**

99.1 Presentation Slides

# ADVENTRX PHARMACEUTICALS



*Refining therapies for life*

AMEX: ANX

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# 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 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 potential to attract a strategic partner and the terms of any related transaction; the ability to timely enroll subjects in ADVENTRX's current and anticipated clinical trials; the results of pending clinical trials for ADVENTRX's product candidates; the potential for ADVENTRX's product candidates to receive regulatory approval for one or more indications on a timely basis or at all, and the uncertain process of seeking regulatory approval; other difficulties or delays in developing, testing, manufacturing and marketing of and obtaining regulatory approval for ADVENTRX's product candidates; the market potential for ADVENTRX's product candidates, and ADVENTRX's ability to compete in those markets; unexpected adverse side effects or inadequate therapeutic efficacy of ADVENTRX's product candidates that could delay or prevent regulatory approval or commercialization, or that could result in recalls or product liability claims; the risk that preclinical and clinical results are not indicative of the success of subsequent clinical trials and that products will not perform as preclinical and clinical data suggests or as otherwise anticipated; 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 and ADVENTRX's product candidates; 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>.

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# 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.

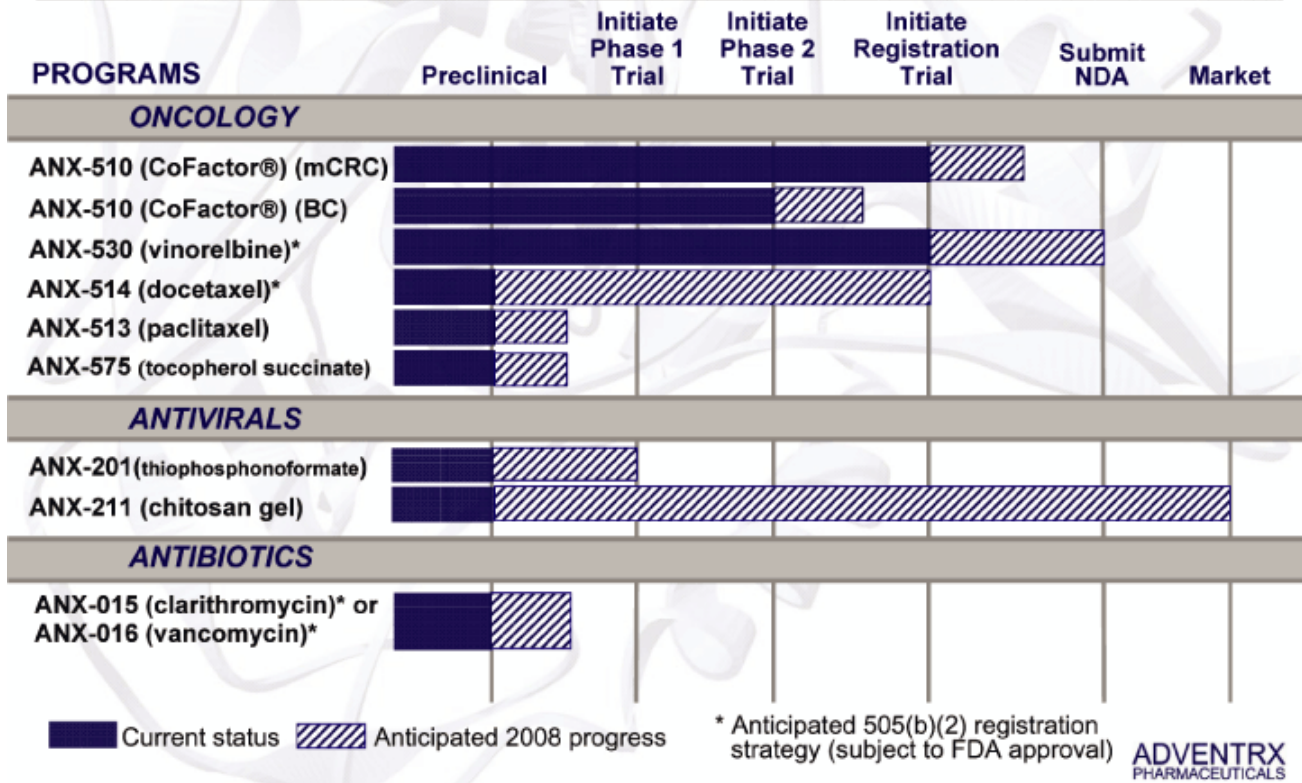


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# Clinical Development Activities

- **Four clinical trials currently ongoing**
  - **CoFactor Pivotal Phase 3 Study (colorectal cancer)**
  - **CoFactor Phase 2b Study (colorectal cancer)**
    - Data anticipated Q4'07
  - **CoFactor Phase 2 Study (breast cancer)**
    - Completion of patient enrollment anticipated Q4'07
  - **ANX-530 Pivotal Bioequivalence Study (various solid tumors)**
    - Completion of patient enrollment anticipated Q3'07
    - Data anticipated Q4'07
- **Additional product candidates planned to enter the clinic**

# ADVENTRX Pipeline and 2008 Goals





# ADVENTRX PHARMACEUTICALS

***Oncology Programs***

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# 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®

- Two clinical trials and preclinical studies have demonstrated:
  - Superior efficacy
  - Reduced toxicity
  - Faster administration
- Special Protocol Assessment agreement with FDA for U.S. pivotal Phase 3 study
- Fast track designation in U. S. with 5-FU and bevacizumab in initial treatment of mCRC
- Orphan drug designation in U.S. & E.U. for pancreatic cancer



## Leucovorin (LV)

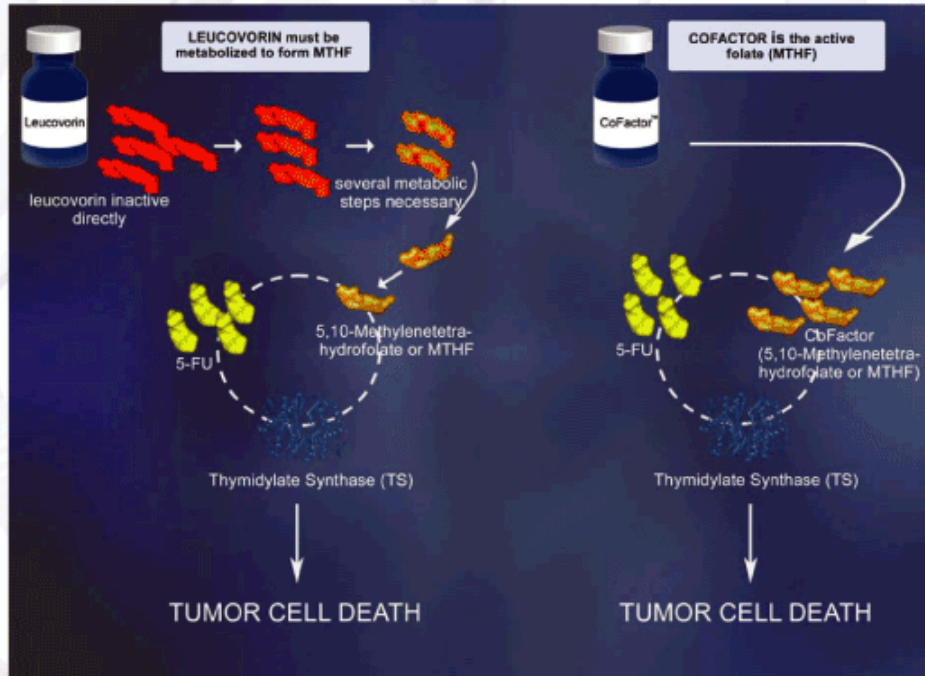
- Indicated for use with intravenous 5-FU in metastatic colorectal and other cancers
- Requires multiple metabolic steps to become active
- Global market > \$500M

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# Mechanism of Action

## CoFactor vs Leucovorin in 5-FU-Mediated Tumor Cell Death



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# Phase 1/2 CoFactor Trial Design

<b>Clinical Design:</b>	<b>Single Arm, Open Label</b>
<b>Dosing Regimen:</b>	<b>Dose escalating study using CoFactor and 5-FU IV bolus weekly</b>
<b>Study Objectives:</b>	<b>Assess safety, PK / PD, response rate, TTP and survival</b>
<b>Study Population:</b>	<b>62 patients with breast, pancreatic, gastric, colorectal or gall bladder cancer</b>
<b>Clinical Site:</b>	<b>1 (Sweden)</b>
<b>Principal Investigator:</b>	<b>Bengt Gustavsson, MD, PhD</b>

Phase I-II Study Of Weekly 5-Fluorouracil And 5,10-Methylene-Tetrahydrofolate In Patients With Advanced Gastrointestinal And Breast Cancer: G. Carlsson, E. Odin, P-A. Larsson, R. Frösing, C.P. Spears, B., Gustavsson: The Cancer Journal, Vol 10 No. 5 September-October 1997.

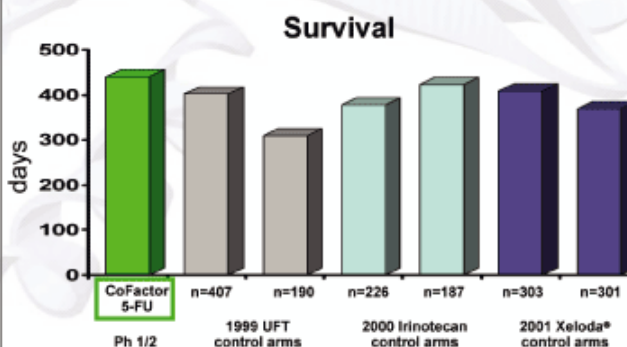
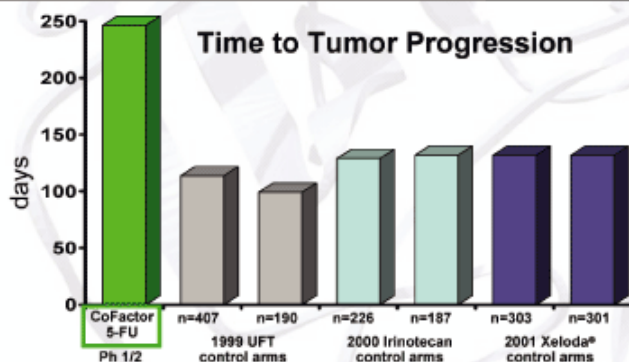
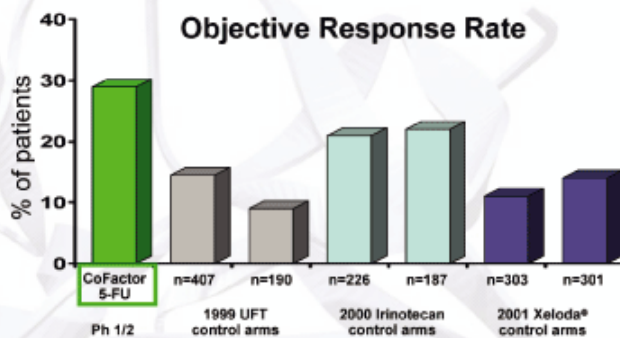
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# CoFactor/5-FU Efficacy and Survival Favorable When Compared to LV/5-FU Control Arms

## Phase 1/2 clinical results

Objective response in breast (56%), pancreatic (40%), gastric (33%) and colorectal (21%) cancers (1<sup>st</sup> + 2<sup>nd</sup> line)

Graphs represent all first-line mCRC (n = 24 patients)



Source: All comparison data are from 1<sup>st</sup> line mCRC trials from product package inserts or (UFT) from Douillard et al JCO Sept 2002, Carmichael et al JCO Sept 2002.

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# Phase 2 CoFactor Trial Design

<b>Clinical Design:</b>	<b>Simon Two-Stage, Single Arm, Open Label</b>
<b>Dosing Regimen:</b>	<b>CoFactor, 5-FU IV bolus, administered weekly for 6 weeks</b>
<b>Primary Endpoint:</b>	<b>≥ 25% objective tumor response (WHO criteria)</b>
<b>Secondary Endpoints:</b>	<b>Safety, TTP and overall survival</b>
<b>Study Population:</b>	<b>50 treatment naïve patients with mCRC; prior adjuvant treatment permitted</b>
<b>Clinical Sites:</b>	<b>9 (5 in US and 4 in Serbia)</b>
<b>Data Analysis:</b>	<b>Blinded, third-party evaluations by CT scan or MRI</b>
<b>Principal Investigator:</b>	<b>Tony Reid, MD, PhD</b>

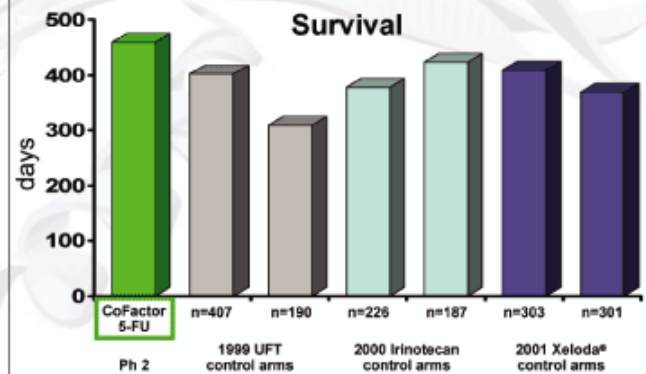
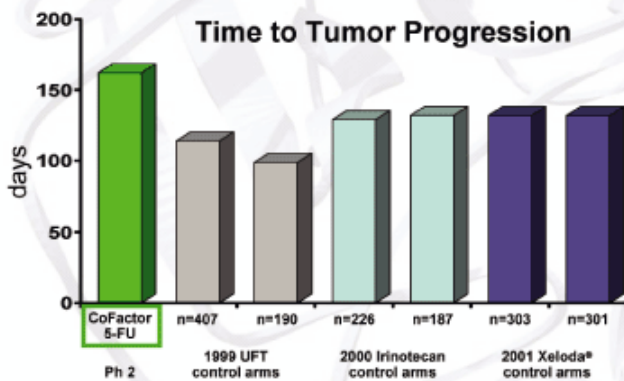
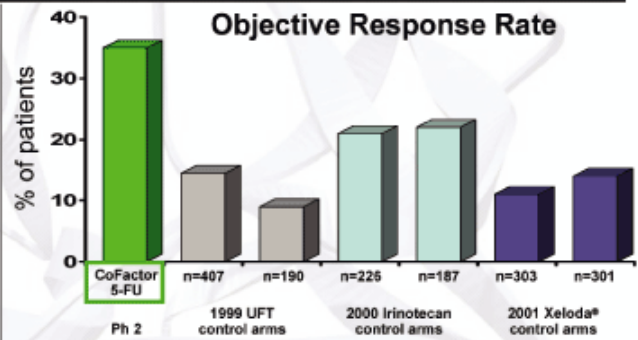
5,10-methylenetetrahydrofolic acid with 5-fluorouracil as first line treatment in metastatic colorectal cancer: a phase II study. T. Reid, C. P. Spears, R. Quadro, M. Subramanian, L. Pawl, G. Jankovic, S. Jelic, N. Milinic, L. Muzikravic, JM Robbins. 2006 Gastrointestinal Cancers Symposium, San Francisco. Jan-28, 2006

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# CoFactor/5-FU Efficacy and Survival Favorable When Compared to LV/5-FU Control Arms

## Phase 2 clinical results

- Tumor response of 35% exceeds primary endpoint of 25% (n=46)
- Median TTP of 162 days (n=49)
- Median survival of 459 days (n=50)
- Excellent toxicity profile



\* Independently-determined

Source: All comparison data are from 1<sup>st</sup> line mCRC trials from product package inserts or (UFT) from Douillard et al JCO Sept 2002, Carmichael et al JCO Sept 2002.

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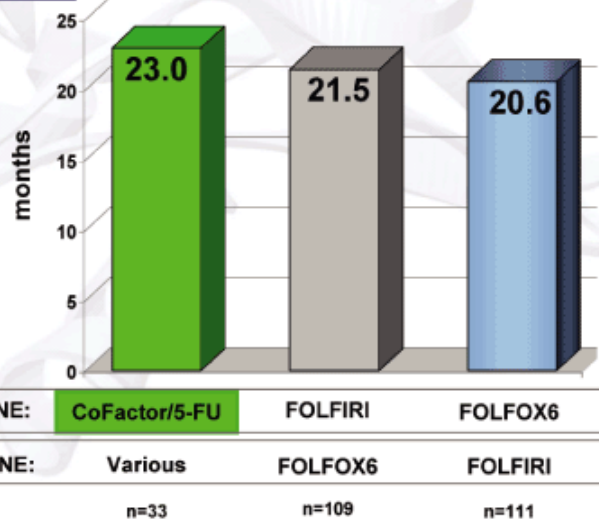
# Response to Second-line Treatment

*Supplemental data suggest CoFactor/5-FU is an appropriate initial mCRC treatment in a sequential treatment strategy*

## Median Survival Following Second-line Therapy for mCRC

### Supplemental Phase 2 clinical results

- 33 patients went on to 2<sup>nd</sup> line treatment
- 4 patients underwent surgical resection
- Results compared to those from recent study comparing sequence of typical 1<sup>st</sup>/2<sup>nd</sup> line therapies



Source: T. Reid, et al, 8<sup>th</sup> World Congress on GI Cancer June 28-July 1, 2006.  
Tournigand, TA, et al, J Clinical Oncology, 22:2, Jan 15, 2004, 229-237.

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# Phase 2 CoFactor Trial Toxicity Profile Comparison (% Grades 3/4)\*

Lower percentage of grade 3/4 adverse events with CoFactor/5-FU compared with LV/5-FU

Grade 3-4 Adverse Events (%)	Ph 2 5-FU/ CoFactor n=50	5-FU/LV cntl arm UFT n=394	5-FU/LV cntl arm UFT n=185	5-FU/LV cntl arm CPT-11 n=226	5-FU/LV cntl arm CPT-11 n=187	5-FU/LV cntl arm Xeloda n=593	Xeloda n=596
Diarrhea	0	16	11	13	6	12	15
Nausea/Vomiting	0	10	9	12	6	7	8
Stomatitis/Mucositis	0	19	16	17	3	15	2
Anemia	0	7	4	56	2	1	2
Neutropenia <sup>a</sup>	2	56	31	67	13	21	3
Hyperbilirubinemia	0	8	10	8	11	6	23
Neuropathy	0	nr	nr	nr	nr	nr	nr
Hand-Foot Syndrome	0	0	0	nr	1	1	17

nr = not reported

\*All comparison data from product package inserts or (UFT) from Douillard et al JCO Sept 2002, Carmichael et al JCO Sept 2002. Nausea/vomiting and stomatitis/mucositis were added if not given as combined.

<sup>a</sup> Single case of Grade 4 neutropenia was reported during the 30 day follow up period after the last dose of CoFactor plus 5-FU study therapy and after the patient started FOLFOX with Avastin therapy

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# Phase 2 CoFactor Trial Toxicity Profile Comparison (% All Grades)\*

Lower percentage of all adverse events with CoFactor/5-FU compared with LV/5-FU

Adverse Events (% ALL grades)	Ph 2 5-FU/ CoFactor n=50	5-FU/LV cntl arm UFT n=394	5-FU/LV cntl arm UFT n=185	5-FU/LV cntl arm CPT-11 n=226	5-FU/LV cntl arm CPT-11 n=187	5-FU/LV cntl arm Xeloda n=593	Xeloda n=596
Diarrhea	42	76	60	69	45	61	55
Nausea/Vomiting	50	75	58	114	87	81	70
Stomatitis/Mucositis	10	75	55	76	29	62	25
Anemia	8	87	89	99	91	79	80
Neutropenia <sup>a</sup>	6	77	67	99	48	46	13
Hyperbilirubinemia	2	22	23	92	36	17	48
Neuropathy	2	nr	nr	nr	nr	4	10
Hand-Foot Syndrome	4	5	4	nr	13	6	54

nr = not reported


\*All comparison data from product package inserts or (UFT) from Douillard et al JCO Sept 2002, Carmichael et al JCO Sept 2002. Nausea/vomiting and stomatitis/mucositis were added if not given as combined.

<sup>a</sup> Single case of Grade 4 neutropenia was reported during the 30 day follow up period after the last dose of CoFactor plus 5-FU study therapy and after the patient started FOLFOX with Avastin therapy

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# Phase 2b mCRC Trial

Trial	Indication	Design	2007	2008	2009
Phase 2b	1 <sup>st</sup> line CRC	CoFactor/5-FU versus LV/5-FU			

<b>Data Expected:</b>	Q4 2007
<b>Patient Enrollment:</b>	Completed Q3 2006 (300 patients)
<b>Primary Endpoint:</b>	Incidence of Grade 3 or 4 hematological or gastrointestinal adverse events <ul style="list-style-type: none"><li>• Power of 80%, <math>\alpha</math> level of 0.05.</li><li>• Estimated rate of Grade 3 or greater hematologic or gastrointestinal adverse events in control arm is 15%.</li></ul>
<b>Secondary Endpoints:</b>	Safety, response rate, TTP and survival

# Phase 3 mCRC Trial

Trial	Indication	Design	2007	2008	2009
Phase 3	1 <sup>st</sup> line CRC	CoFactor/5-FU/ Avastin versus LV/5- FU/Avastin			

<b>Patient Enrollment:</b>	Completion expected around the end of 2008
<b>Primary Endpoint:</b>	Improvement in progression free survival of $\geq 28$ days; SPA with the FDA <ul style="list-style-type: none"><li>• Power of 80%, <math>\alpha</math> level of 0.05.</li><li>• Estimated median TTP is 9.4mo in control arm.</li></ul>
<b>Secondary Endpoints:</b>	Response rate, duration of response, overall survival and adverse events
<b>Number of Patients:</b>	1,200 (600 per arm)

# Phase 2 Advanced Breast Cancer Trial

Trial	Indication	Design	2007	2008	2009
Phase 2	Advanced breast	CoFactor/5-FU			

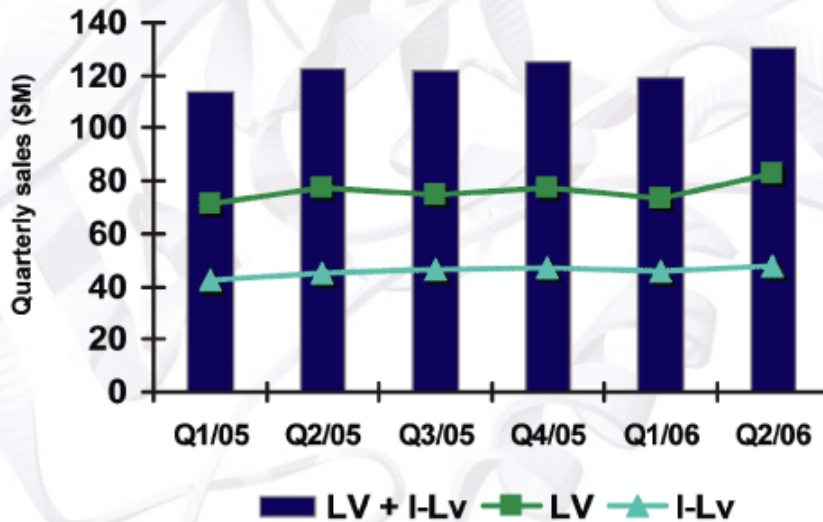
<b>Patient Enrollment:</b>	Completion expected in 2007
<b>Primary Endpoint:</b>	Objective response rate (RECIST criteria) <ul style="list-style-type: none"><li>• Power of 80%, <math>\alpha</math> level of 0.10.</li><li>• Estimated rate of objective response is 25%</li></ul>
<b>Secondary Endpoints:</b>	Duration of response, progression free survival and adverse events
<b>Number of Patients:</b>	31

*Outcome to guide design of Phase 3 Study*



# Leucovorin Market

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



\* all intravenous and oral forms included

Source, IMS Health

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# ANX-530 (vinorelbine emulsion )

*New formulation of intravenous vinorelbine tartrate designed to reduce vein irritation*

## ANX-530 (vinorelbine emulsion)

- Initiated a marketing-enabling 28-patient bioequivalency study of ANX-530 and Navelbine under 505(b)(2)
- Preclinical studies have demonstrated reduced vein irritation, redness and swelling
- Preclinical studies have demonstrated pharmacokinetics and antitumor activity similar to Navelbine



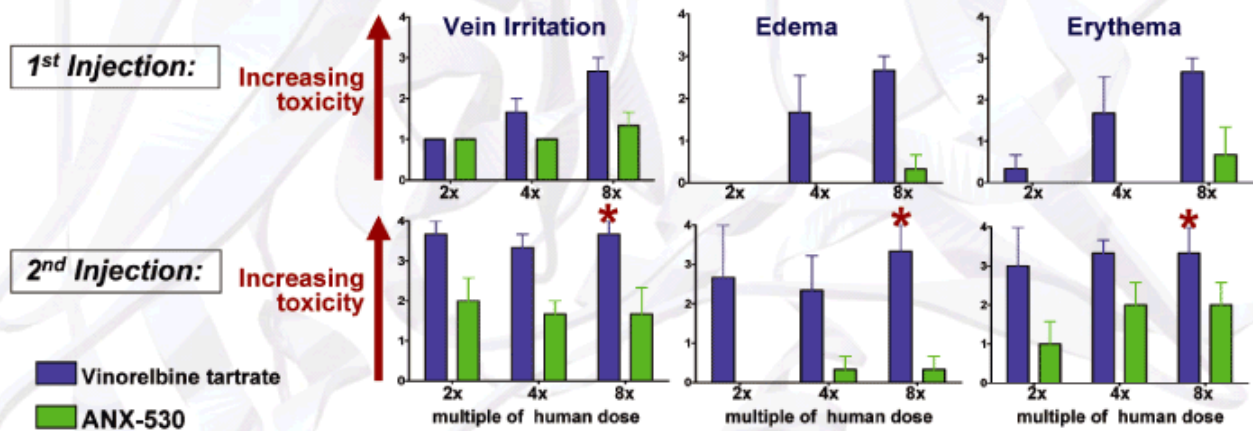
## Vinorelbine Tartrate (Navelbine®)

- Indicated as single agent or in combination with cisplatin for first-line treatment of unresectable advanced NSCLC
- Injection site reactions in approximately one-third of patients
- Annual global market > \$200M

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# ANX-530 Preclinical Data

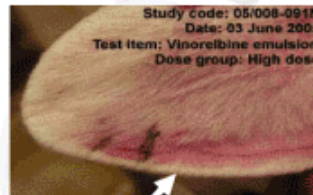
Lower vein irritation, edema and erythema in preclinical studies with ANX-530



**Vinorelbine solution:** Due to the severity of toxicity, animals did not receive the full set of injections but were still analyzed for toxicity after each injection period.

\*High dose group received 1<sup>st</sup> injection only.

Low and medium dose groups received 1<sup>st</sup> and 2<sup>nd</sup> injections.



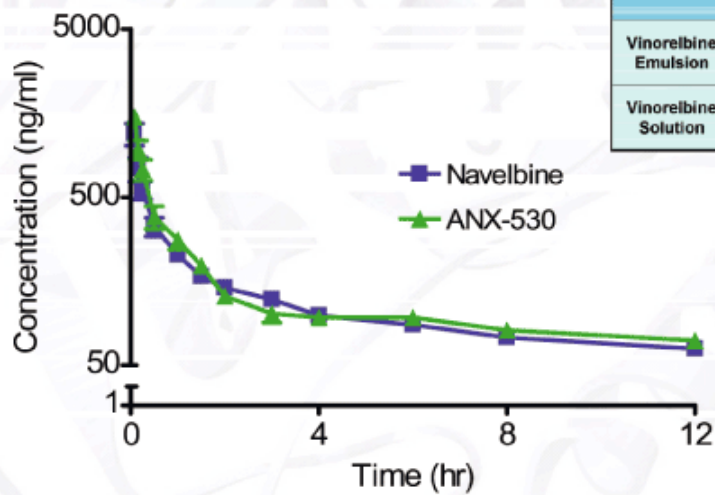
ANX-530



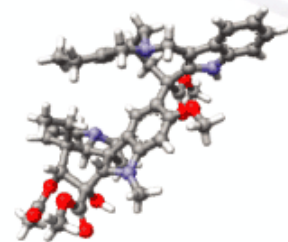
Navelbine® (vinorelbine)

# ANX-530 Pharmacokinetics

*Pharmacokinetics unchanged (statistically equivalent) for ANX-530 in a rat PK model*



Drug	$t_{1/2\alpha}$ (hr)	$t_{1/2\beta}$ (hr)	Vd (L/kg)	CL (L/hr/kg)	AUC <sub>0-24</sub> (mg hr/L)	AUC <sub>0-∞</sub> (mg hr/L)
Vinorelbine Emulsion	0.28	11.2	24.1	1.5	2271.5	2717.6
Vinorelbine Solution	0.28	11.7	25.7	1.5	2106.2	2892.0



Source: Cantwell, MJ, Robbins, JM, Chen, AX; A novel emulsion formulation of vinorelbine attenuates venous toxicity while maintaining antitumor efficacy; AACR 2006

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# ANX-530 Bioequivalence Trial

Trial	Indication	Design	2007	2008	2009
Bioequivalence	Various solid tumors	Crossover comparison of ANX-530 v. Navelbine			

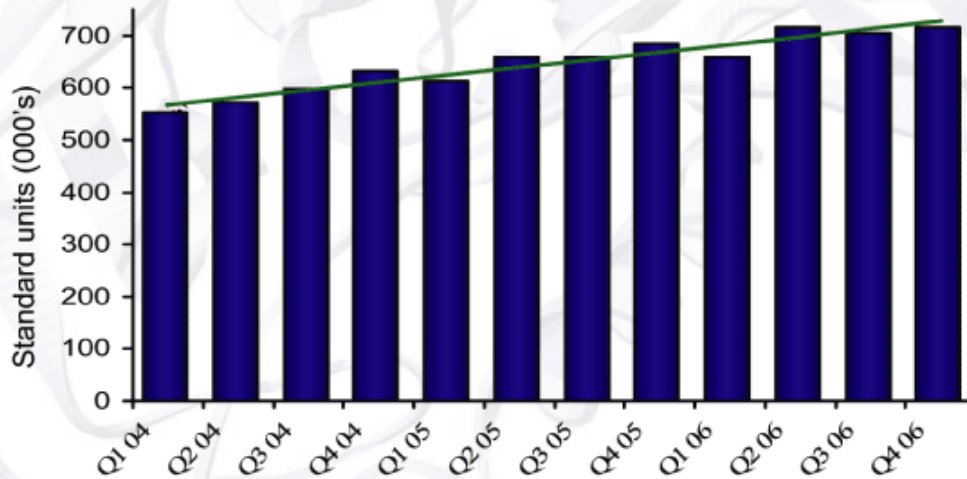
<b>Data Expected:</b>	<b>Q4 2007</b>
<b>Patient Enrollment:</b>	<b>Completion expected in Q3 2007</b>
<b>Primary Endpoint:</b>	<b>Pharmacokinetic equivalence of ANX-530 and Navelbine</b>
<b>Secondary Endpoints:</b>	<b>Safety of a single dose of ANX-530</b>
<b>Number of Patients:</b>	<b>28</b>

# Global Vinorelbine Market

## Generic Vinorelbine Sales (2004-2006)

Global annual sales > \$200M

Unit sales CAGR of 9% (last 2 years, top 10 countries)



Source: IMS Health

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# 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 (docetaxel emulsion)

- Plan to seek guidance from the FDA about the appropriateness of a 505(b)(2) regulatory path in the U.S.; concurrently exploring a global development strategy
- Preclinical results have indicated bioequivalent pharmacokinetics with a reduced risk of hypersensitivity reactions

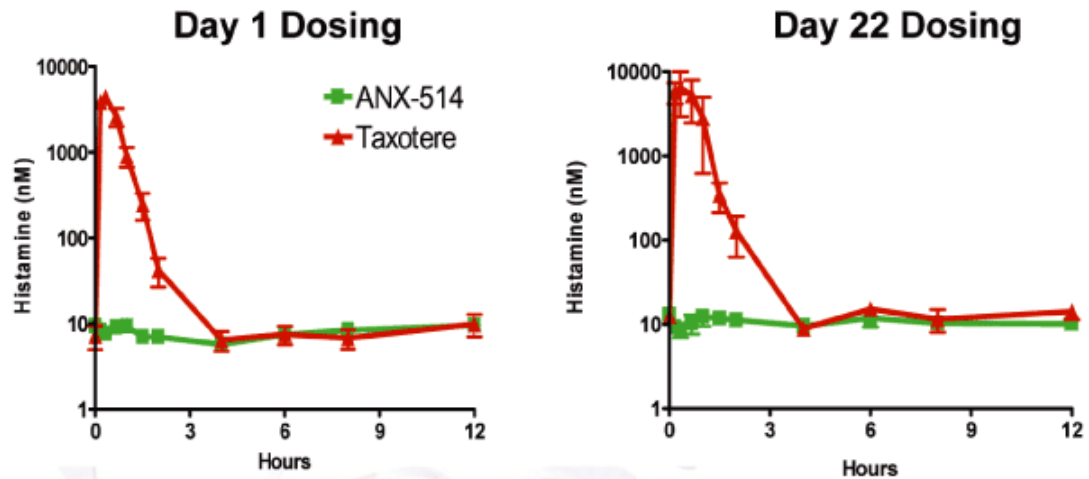
## Docetaxel (Taxotere®)

- Approved for the treatment of breast, non-small cell lung, prostate, head and neck & gastric cancers
- Severe hypersensitivity reactions can be caused by the presence of polysorbate 80 (detergent used to solubilize docetaxel); premedication with corticosteroids recommended for patients prior to treatment with docetaxel
- 2006 Global Taxotere Sales = Approx. \$2.2BN

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# ANX-514 Plasma Histamine Levels

*Lower hypersensitivity observed following ANX-514 administration over Taxotere*



**Dose Level = 1 mg/kg. Duration of Infusion = 5 minutes. Crossover Study Design.  
n = 4 animals per group**

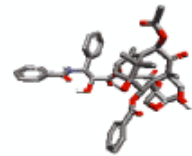
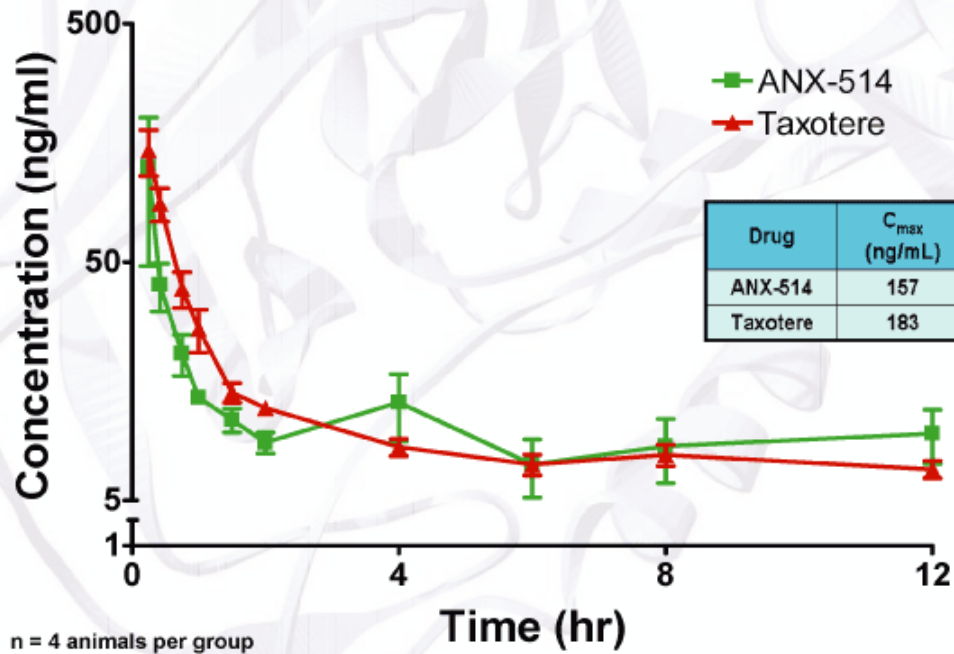
ADVENTRX data on file.

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# ANX-514 Pharmacokinetics

Pharmacokinetics unchanged (statistically equivalent) for ANX-514 in an animal PK model



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# ANX-513 (paclitaxel emulsion)

*New formulation of paclitaxel formulated without Cremophor® or other detergents or macromolecules, designed to be non-allergenic and eliminate the need for immunosuppressant premedication*

## ANX-513 (paclitaxel emulsion)

- Preclinical results have demonstrated no hypersensitivity reactions in a guinea pig hypersensitivity model (at high or low doses)

## Paclitaxel (Taxol®)

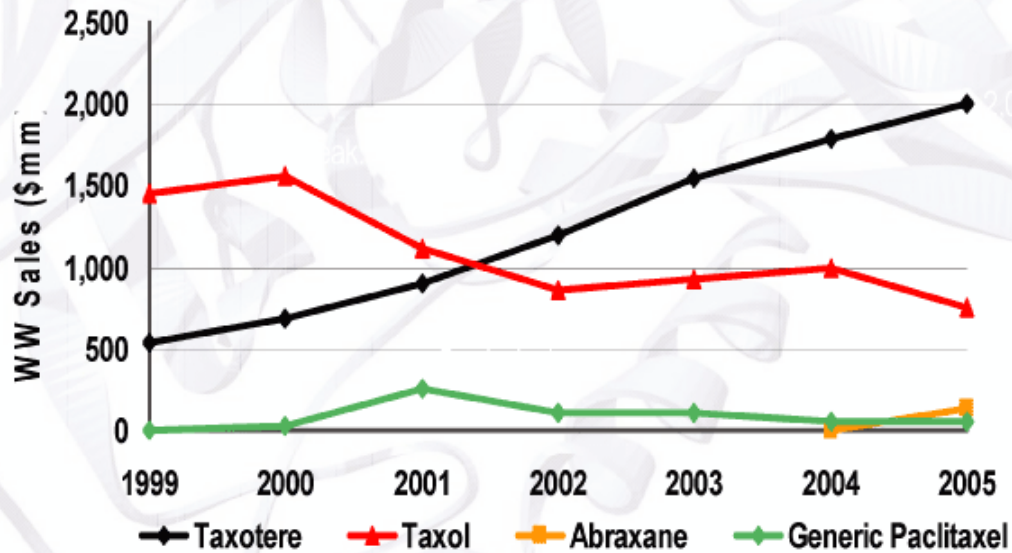
- Approved for the treatment of breast, ovarian, Kaposi's sarcoma and non-small cell lung cancers
- Severe hypersensitivity reactions can be caused by the presence of Cremophor (used to solubilize docetaxel); premedication with corticosteroids or anti-histamines recommended for patients prior to treatment with paclitaxel
- 2005 Global Taxol Sales (including generic) = Approx \$1BN

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# Taxanes Market

*Total Taxane pharmaceutical market nearly \$3 billion*

**Taxane Global Drug Sales 1999-2005**



Source: EvaluatePharma

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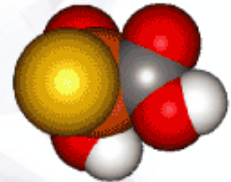
***Antiviral Programs***

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# ANX-201 (thiophosphonofornate)

*Reverse transcriptase inhibitor with novel mechanism of action that re-enables NRTI use in NRTI-resistant HIV+ patients*

- Unique mechanism of action as a pyrophosphate analog reflected in unique resistance profile
- Resensitizes NRTI-resistant virus
- Active against virus with common mutations
- Synergistic activity with NRTIs including tenofovir, zidovudine (AZT), lamivudine and abacavir
- Broad antiviral activity: HIV, HPV, herpes and influenza A



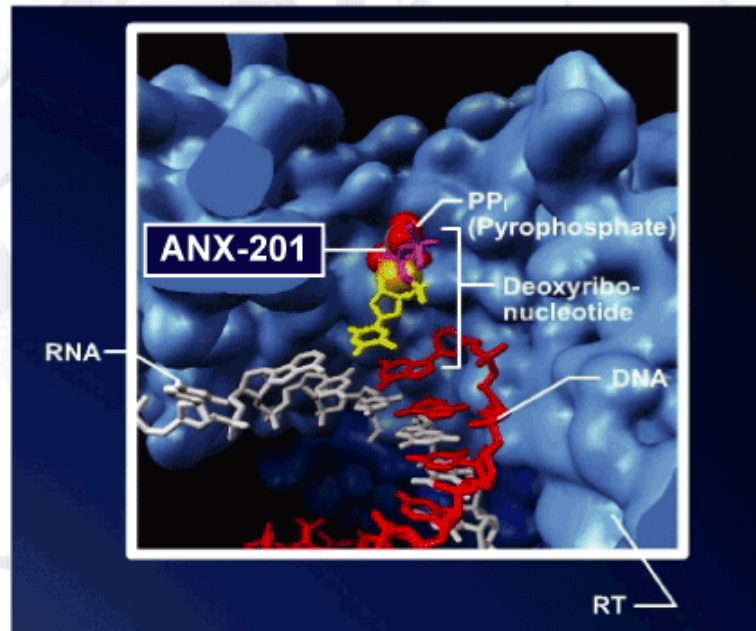
thiophosphonofornate,  
TPFA

Note: Tenofovir is a NRTI in Truvada® and Viread®, zidovudine is a NRTI in Combivir®, Trizivir®, Retrovir®, lamivudine is a NRTI in Eпивir®, Combivir®, Trizivir®, and abacavir is a NRTI in Ziagen®, Trizivir®, Epzicom®.

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# Mechanism of Action

*ANX-201 is a pyrophosphate analog with a novel mode of action from other reverse transcriptase inhibitors*



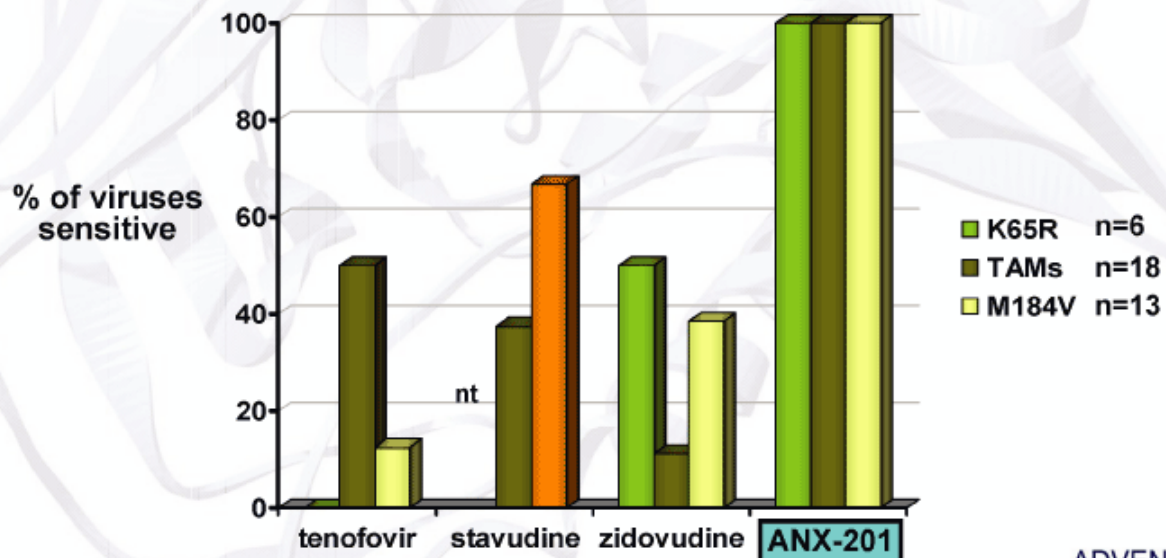
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# ANX-201 Preclinical Data

## Drug Activity Against HIV with Resistance to NRTIs

*ANX-201 tested against viruses resistant to common NRTIs due to virus mutations; all viruses tested were sensitive to ANX-201*



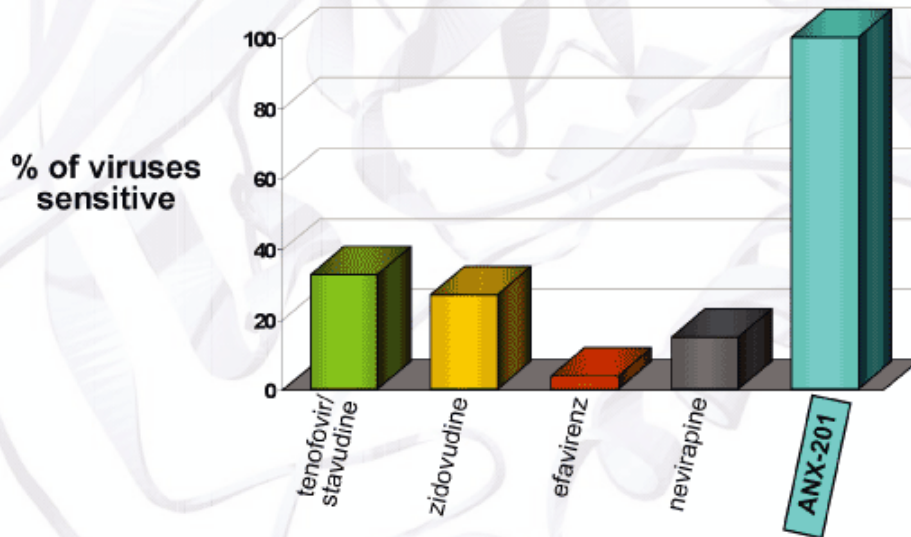
ADVENTRX data on file.

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# ANX-201 Preclinical Data

## Drug Activity Against HIV with Resistance to NNRTIs

*ANX-201 tested against viruses resistant to NNRTIs due to virus mutations; all viruses tested were sensitive to ANX-201*



ADVENTRX data on file. © 2010 Monogram

NNRTI-resistant virus n=27

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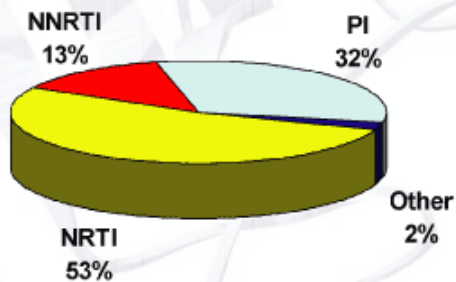
# HIV/AIDS Market

## MARKET SIZE

### Number of HIV cases:

- US - 950,000 with 40,000 new cases each year
- North America and Western Europe - 1.8M
- Global - nearly 40M

### Portion of total sales by drug class in the 6 major markets (2005):



## RTI SALES (US)

Drugs targeting HIV reverse transcriptase generated \$4.9B in sales (2005)

## MARKET GROWTH

HIV/AIDS is a chronic disease: Goal of treatment is lifelong viral suppression.

Treatment-experienced 3rd line+ patients, represent approximately one-third of all HIV+ patients in the U.S.

Sources: National Center for Health Statistics, UNAIDS/WHO, Datamonitor Pipeline Insight HIV 8/06

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# ANX-211 (Chitosan gel)

*Zinc and chitosan based intranasal topical broad spectrum antiviral designed to reduce duration and severity of cold and flu for OTC market*

## ANX-211 (chitosan gel)

- ANX-211 has demonstrated efficacy against viruses responsible for the common cold, influenza and other respiratory tract infections in preclinical studies

## Zicam®

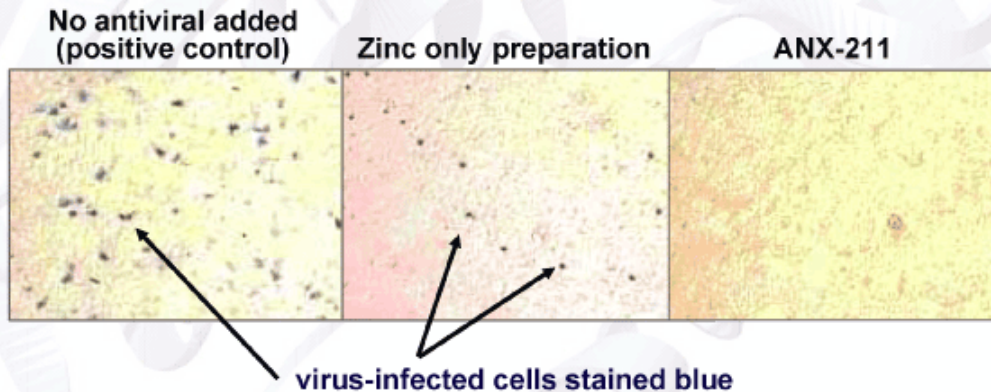
- Leading competitive US product positioned for cold
- Zicam-branded cold remedy and multi-symptom cold/flu product line sold nearly \$75M in 2006
- Estimated 20-50M cases of flu and 500M cases of common cold each year in U.S.

Source: Incidence and prevalence database. Matrixx Initiatives, Inc. 2006 annual report.

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# ANX-211 Preclinical Efficacy

*ANX-211 has demonstrated efficacy against viruses responsible for the common cold, influenza and other respiratory tract infections in preclinical studies*



HEK cells infected by adenovirus carrying  $\beta$ -gal gene. Virus-infected cells are blue from X-gal staining. **ANX-211 was more effective than the zinc only preparation in protecting the cells against the adenovirus infection.**

# Leadership

**Evan M. Levine**, Chief Executive Officer & Director

Brown Simpson Asset Management; Dillon Read; Hambrecht & Quist

**James A. Merritt, M.D.**, President & Chief Medical Officer

Imagine Pharmaceuticals; Introgen; Viagene; Idec Pharmaceuticals; Upjohn

**Gregory P. Hanson, C.M.A., M.B.A.**, Chief Financial Officer

Avanir Pharmaceuticals; XXsys Technologies, L3 Communications, Caterpillar, Ford

**Joan M. Robbins, Ph.D.**, Chief Scientific Officer

Immusol; Chiron; NCI/NIH Laboratory of Tumor Immunology & Biology

**Brian M. Culley, M.S., M.B.A.**, Chief Business Officer

Immusol; UCSD Technology Transfer and Intellectual Property Dept.; Neurocrine Biosciences

**Joachim P. H. Schupp, M.D.**, Vice President, Medical Affairs

ProSanos Corp.; Novartis AG; CIBA-GEIGY AG

**Patrick L. Keran, J.D.**, General Counsel

Isis Pharmaceuticals; Heller Ehrman; Brobeck, Phleger & Harrison

**Mark J. Cantwell, Ph.D.**, Vice President, Research & Development

Tragen Pharmaceuticals; UCSD

**Michele L. Yelmen**, Vice President, Regulatory Affairs

Perlan Therapeutics, Genzyme Corp., Mallinckrodt

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# Board of Directors

<b>Jack Lief, Chairman</b>	<b>President, CEO, Cofounder and Director, Arena Pharmaceuticals</b>
<b>Evan M. Levine</b>	<b>Chief Executive Officer, ADVENTRX Pharmaceuticals</b>
<b>Mark N. K. Bagnall, C.P.A.</b>	<b>Former, Chief Finance and Operations Officer, Metabolex, Inc.</b>
<b>Alex J. Denner, Ph.D.</b>	<b>Icahn Partners LP, Icahn Partners Master Fund LP, Director, ImClone Systems</b>
<b>Michael M. Goldberg, M.D.</b>	<b>Partner, Montaur Capital Partners</b>
<b>Mark J. Pykett, V.M.D., Ph.D.</b>	<b>President and COO, Alseres Pharmaceuticals Inc., Cofounder, Cytomatrix</b>

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# Clinical Development Activities

- **Four clinical trials currently ongoing**
  - **CoFactor Pivotal Phase 3 Study (colorectal cancer)**
  - **CoFactor Phase 2b Study (colorectal cancer)**
    - **Data anticipated Q4'07**
  - **CoFactor Phase 2 Study (breast cancer)**
    - **Completion of patient enrollment anticipated Q4'07**
  - **ANX-530 Pivotal Bioequivalence Study (various solid tumors)**
    - **Completion of patient enrollment anticipated Q3'07**
    - **Data anticipated Q4'07**
- **Additional product candidates planned to enter the clinic**



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*Refining therapies for life*

AMEX: ANX