



Multi-Target Drugs for Cancer and Inflammation

NASDAQ: ENMD

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Forward-Looking Statements

Statements that are not descriptions of historical facts are forward-looking and subject to risk and uncertainties. Actual results may differ materially from those currently anticipated due to a number of factors, including risks relating to additional financing, early-stage product development, clinical trials, and those set forth in the Company's Securities and Exchange Commission filings.

Our Mission: Multi-Target Oncology Drugs

EntreMed is a clinical-stage pharmaceutical company developing next generation multi-mechanism drugs to treat cancer and inflammatory disorders by targeting disease cells directly and the blood vessels that nourish them.

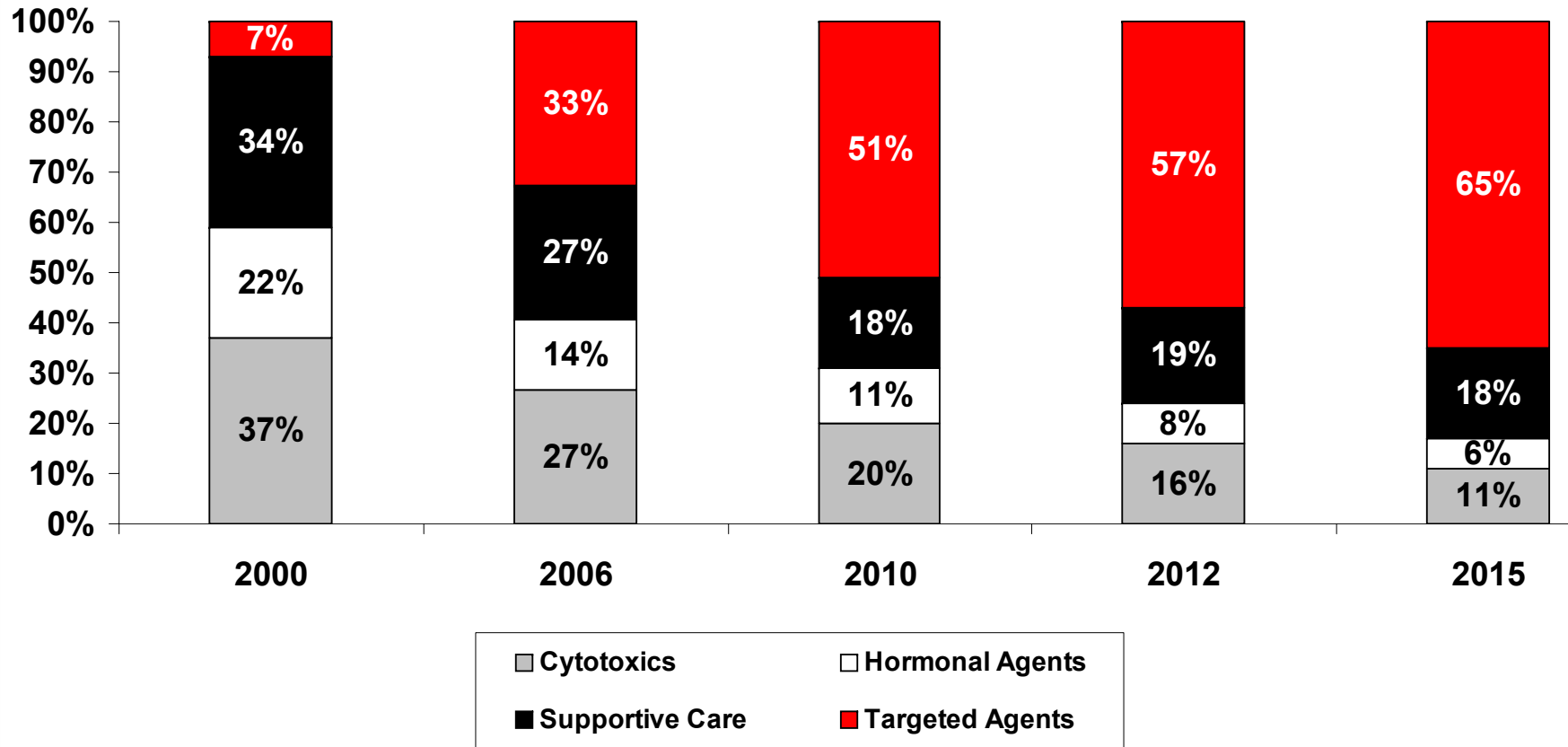
Therapeutic Focus	Oncology & Inflammation
Development Stage	Phase 2 Oncology
Technology Expertise	Angiogenesis, Cell Cycle Regulation, Cell Signaling, and Inflammation
Research Facilities	Rockville, Maryland and Toronto, Ontario

Oncology Business Model – Targeted, Multi-Mechanism Drugs

- **Three oncology compounds in multiple Phase 1 and 2 studies**
 - Multiple drug candidates with multiple mechanisms of action
 - Risk mitigation via multiple early-stage clinical programs
 - Strong IP, retained commercial rights to all compounds
- **Focused on important pathways and targets that can inhibit disease progression**
 - Small molecule, orally-active, antiproliferative, antiangiogenic drugs
 - Expertise in angiogenesis, cell cycle regulation, cell signaling
- **Create Value**
 - Multi-product clinical pipeline
 - Execute partnering strategy

Targeted Agents Will Drive the Growth in Oncology

Oncology Market: Share Of Targeted Agents, 2000A-2015 (%)



Source: Oncology Market Size, Competition and Pricing, September 21, 2007

MKC-1: Novel Phase 2 Cell Cycle Inhibitor

- Oral, antiproliferative, cell-cycle inhibitor; mTOR inhibitor, Importin β , HIF-1 α targets
- Broad antitumor activity, alone and in combination
- Predictable toxicity (neutropenia, GI effects); no neuropathy, no abnormal cardiovascular effects
- Exclusive world-wide license from Roche
- Broad IP coverage through 2021, including composition-of-matter & formulation; substantial API inventory



MKC-1 Progress in Non-Small Cell Lung Cancer

- **Trial Design:** Phase 1/2, open label, in combination with pemetrexed (Alimta®) (Phase 1 dose escalation advanced solid tumors, Phase 2 non-small cell lung cancer)
- **Dosing:** Phase 1 escalating dose started with 75 mg/m² BID for 14 days on, 7 days off, in combination with pemetrexed at standard dose
- **Study Endpoints**
 - Safety occurrence of treatment-emergent AEs
 - Efficacy (Phase 2) tumor response (according to RECIST)
 - Median progression free survival
 - Duration of response and time to response
 - Time to treatment failure
 - Median survival
- **Primary endpoint (response) has been met**
- **Randomized Phase 2 in NSCLC (and RCC) under consideration**

ENMD-2076: Aurora A and Angiogenesis Inhibitor

- Orally active, selective-kinase inhibitor
- Unique combination of target activities: Aurora A & Angiogenic Kinases (VEGFR, FGFR, PDGFR); Growth Factor Kinases (Flt-3, Src, c-Kit)
- Tumor regression observed in multiple preclinical models
- Excellent efficacy as a single agent
 - Excellent pharmaceutical properties
 - Combines well with other cancer drugs
- Actively engaged in partnering discussions
- Phase 1 study in solid tumors currently underway
 - Phase 1 results anticipated 1H09
- Phase 1 study in multiple myeloma planned for 4Q08



ENMD-1198: Oral, Multi-Mechanism Antimitotic Agent

- **Novel drug targeting key transcription factors – HIF-1, STAT3 & NF κ B**
 - HIF-1 has a central role in cell survival & proliferation; regulates > 80 genes
 - Over-expression associated with tumor aggression & increased angiogenesis
- **Antiproliferative & antiangiogenic activity against multiple tumor types, including resistant tumors**
- **Phase 1 study in advanced cancer patients nearing completion**
 - Reached dose-limiting toxicity
 - Cohort expansion to identify combination therapies and target indications
- **MOA indicates prostate cancer may be key indication; clinical development plan pending**



Panzem[®] (2ME2) – An Oral, Small Molecule DMARD with Antiangiogenic Activity

- Dose-dependent inhibition in preclinical RA models (DMARD)
 - Cellular infiltration; pannus formation; cartilage lesions; bone resorption
- Additive activity in combination with MTX; comparable activity to Enbrel[®] in preclinical RA models
- Orally-active, unique inhibition of targets distinguishes 2ME2 from other RA agents
- Broad IP position; composition-of-matter coverage through 2022
- \$14 billion global market; >300 million cases worldwide
 - Oral, small molecule, unique mechanism
 - Potentially competitive with BRMs and other DMARDs
- Healthy volunteer study completed; clear development path forward
 - Drug-drug interaction (DDI) clinical study with methotrexate
 - Phase 2 following chronic animal toxicity study
- Active partnering effort underway

Third Quarter 2008 Financial Results

Nine Months Ended September 30,

	2008	2007	Year-End 2007
Total revenues	\$ 3,501,307	\$ 3,520,259	\$ 7,395,651
Research & development	16,629,127	18,089,240	23,739,392
General & administrative	5,274,585	5,407,588	7,386,570
Operating loss	(19,314,476)	(18,643,625)	(22,411,121)
Acquired in-process R&D	2,000,000	0	0
Net Loss	(21,314,476)	(18,643,625)	(22,411,121)
Net loss per share attributable to common shareholders (basic)	\$ (0.26)	\$ (0.23)	\$ (0.28)
Weighted avg. number of shares outstanding (basic)	86,060,438	84,015,999	84,166,552
Cash & short term investments	\$27,871,889	\$ 50,644,261	\$ 47,748,191

Financial Highlights

- **Reported ~\$3.5 million in royalty revenue from sales of Thalomid® in 3Q08**
 - Anticipated royalty revenue for 2008 of \$7-\$8 million
- **Ended 3Q08 with ~\$28 million in cash and short-term investments**
 - Sufficient cash to fund planned operations for more than 12 months
 - Expect development expenses to decline in 2009
 - Anticipate directional clinical data from 3 oncology programs over the next 6 months
- **ENMD common stock transferred to Nasdaq Capital Markets October 1**
 - \$1 minimum bid price compliance period extended to July 6, 2009

Key 2H08 & 1H09 Milestones: Moving Our Clinical Pipeline Forward

Compound	Goal	Target	Status
MKC-1	Initiate Phase 2 study in ovarian/endometrial cancers	1Q08	✓
	Report results (Phase 2 metastatic breast cancer)	2Q08	✓
	Initiate Phase 1 continuous dosing trial	2Q08	✓
	Report Phase 1 and interim Phase 2 data (non-small cell lung cancer)	4Q08	✓
ENMD-2076	Initiate Phase 1 trial in solid tumors	1Q08	✓
	Initiate Phase 1 trial in hematological tumors	4Q08	
	Co-development alliance	1H09	
Panzem [®] (2ME2)	Complete healthy volunteer trial in rheumatoid arthritis	2H08	✓
ENMD-1198	Complete Phase 1 enrollment	4Q08	
	Initiate expanded Phase 1 or Phase 2 trial	1H09	
	Report interim data for Phase 1	1Q09	

EntreMed Value Proposition

Robust Pipeline

3 clinical stage oncology programs

1 clinical stage rheumatoid arthritis program

Partnering – 2 active initiatives

ENMD-2076 for oncology

Panzem[®] for rheumatoid arthritis

Royalty Income – Celgene's Sales of Thalomid[®]

Expect to record between \$7 and \$8 million in 2008

Potential for increased royalties

- EU approval of Thalomid for multiple myeloma



ENTREMED

**Multi-Target Drugs for
Cancer and Inflammation**

