ENTREMED

Multi-Mechanism Drugs for Oncology and Inflammation

April 2008

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.

EntreMed: A Clinical-Stage Oncology Company

Public Company	NASDAQ: ENMD
Therapeutic Focus	Cancer & Inflammation
Development Stage	Phase 2 Oncology
Technology Expertise	Angiogenesis, Cell Cycle Regulation, Apoptosis, Kinase Signaling
Facilities	Rockville, Maryland and Toronto, Ontario
Employees	56 Total; 44 in R&D
Financials	Cash & Short-Term Investments: $47.7 MM (December 31, 2007)

Investment Highlights

- Robust clinical pipeline
  - MKC-1 — Multiple Phase 2
  - ENMD-1198 — Phase 1
  - ENMD-2076 (Selective Kinase Inhibitor) — Phase 1
  - Panzem® in Rheumatoid Arthritis — Phase 1
- Strong IP, retained commercial rights to all compounds
  - Selective partnering discussions initiated
- Strengths
  - Experienced management team focused on execution
  - Expertise in angiogenesis, cell cycle regulation, apoptosis, and kinase signaling
  - Celgene Corporation, largest shareholder
- Cash and short-term investments well into 2009

Focused Corporate Strategy

- Concentrate resources on programs that provide a direct path forward and ultimately to market, specifically:
  - MKC-1
  - ENMD-1198
  - ENMD-2076
- Conserve cash by funding essential priority program activities and deferring new program initiatives
- Expand partnering activities across clinical programs
  - Pursue development and/or out-licensing partners

Solid Mid-Stage Clinical Pipeline

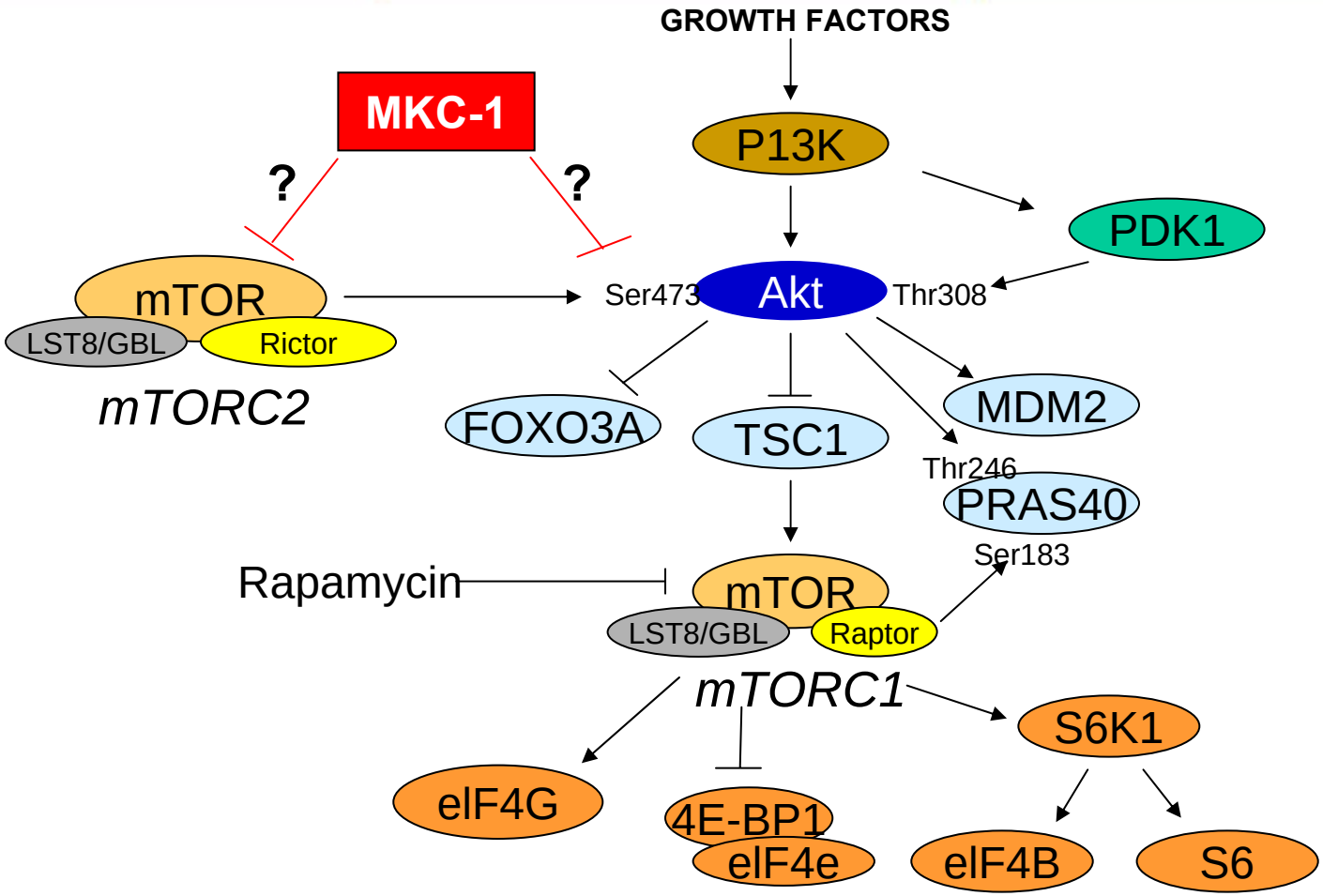
PRODUCT	INDICATION	DISCOVERY	PRECLINICAL	PHASE 1	PHASE 2	PHASE 3
MKC-1	Metastatic Breast Cancer					
	Non-Small Cell Lung Cancer					
	Leukemia					
	Pancreatic Cancer					
	Ovarian/Endometrial Cancers					
	Advanced Cancer					
ENMD-1198	Advanced Cancer					
Panzem® (2ME2)	Rheumatoid Arthritis					
ENMD-2076	Cancer					

MKC-1: Novel Phase 2 Cell Cycle Inhibitor

- Oral, antiproliferative, cell-cycle inhibitor acting through multiple mechanisms:
  - PI3K – Akt – mTOR pathway
  - Importin β
  - Microtubules
- Extensive preclinical and clinical package from Roche (including durable responses in breast and NSCLC)
- Extensive IP through 2019, including composition-of-matter and formulation
- Exclusive world-wide license

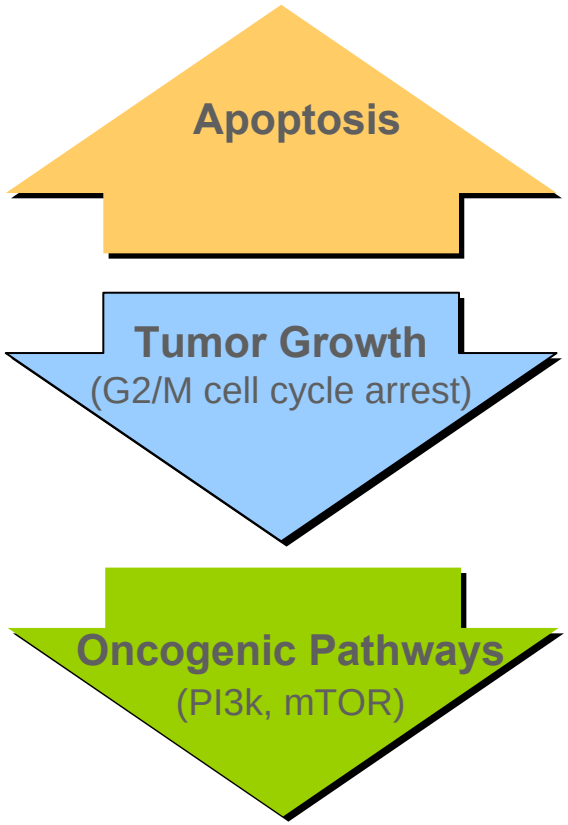
ENTREMED

MKC-1 Activity is Consistent With Inhibition of mTOR at the Level of the mTORC2 Complex



MKC-1: Clinical Activity Demonstrated

- Prior Phase 1 & 2 trials in 269 patients
- Efficacy demonstrated even with suboptimal doses
  - PRs and MRs in NSCLC and metastatic breast cancer
  - Activity seen in pancreatic and ovarian cancer
- Toxicity included neutropenia, GI effects; no neuropathy, no abnormal cardiovascular findings
- 125 mg/m2 bid, 14d, q4wks (Phase 1 recommended dose)

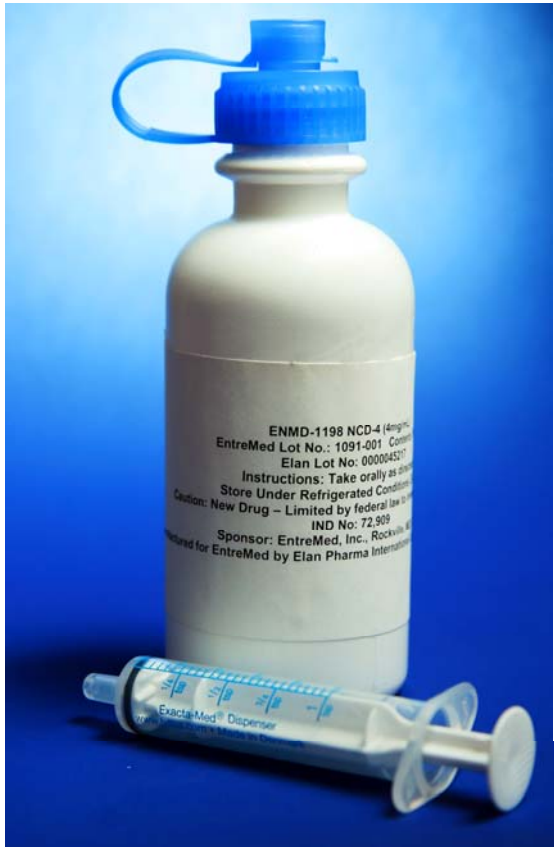


MKC-1: Clinical Trials in Solid Tumors and Leukemia

INDICATION	TRIAL TYPE	SITE(S)	N=	STATUS
Metastatic Breast Cancer	Phase 2	Multicenter	Up to 60	Closed
Hematological Cancers	Phase 1	Princess Margaret Hospital	30	Enrolling
Non-Small Cell Lung Cancer	Phase 1/2 (w/Alimta®)	Multicenter	Up to 60	Enrolling
Pancreatic Cancer	Phase 2	Multicenter	Up to 33	Enrolling
Ovarian/Endometrial Cancers	Phase 2	Multicenter	Up to 84	Enrolling
Advanced Cancer	Phase 1	University of Wisconsin	Up to 24	Enrolling

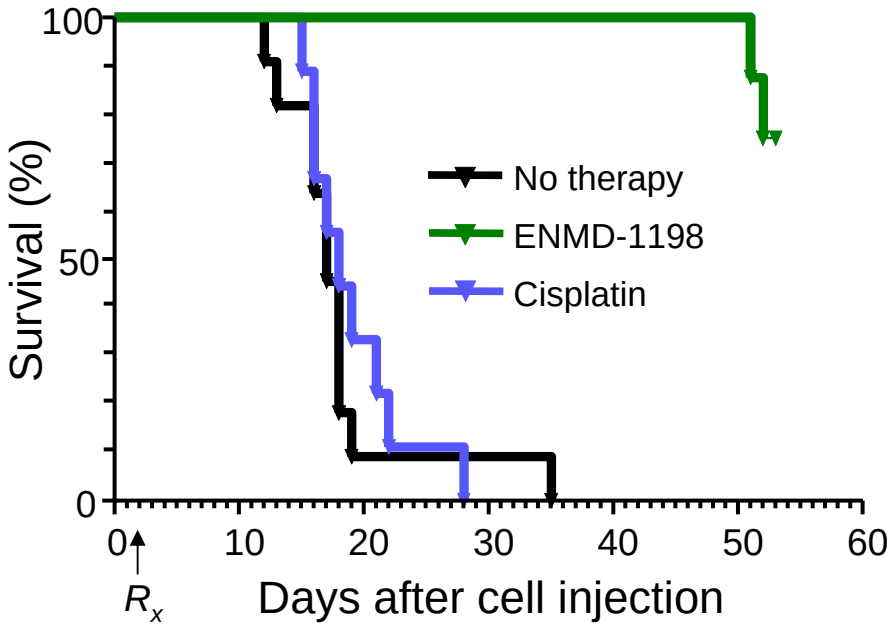
ENMD-1198: Novel, Multi-Mechanism Antimitotic Agent in Clinical Development for Oncology

- Novel antiproliferative and antiangiogenic mechanisms
- Oral, stable, liquid dispersion
- Strong IP position; new chemical entity (NCE); multiple patents pending
- Broad applicability: many different tumor types inhibited preclinically
  - Extended survival in lung and ovarian cancer
  - Synergistic benefit with vincristine in leukemia
- Phase 1b clinical trial in advanced cancer patients ongoing
- Expanded Phase 1 or Phase 2 trial in 2H08



ENTREMED

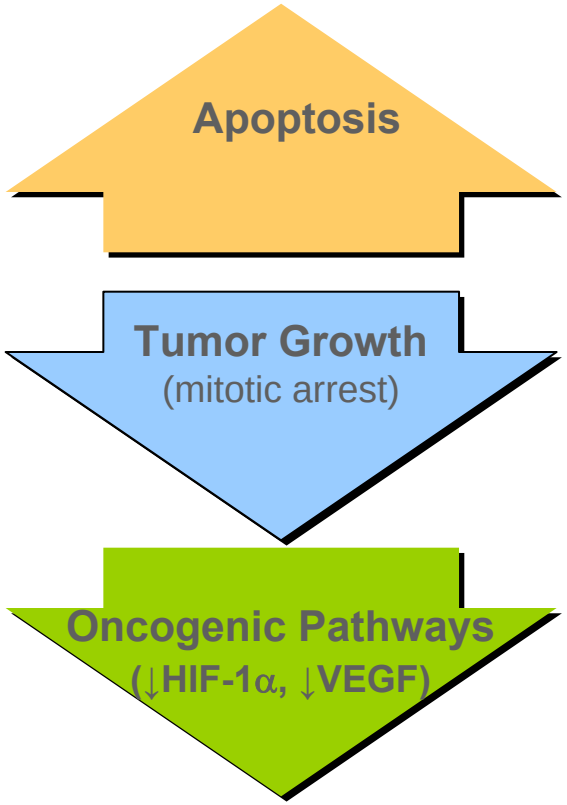
ENMD-1198 Significantly Increases the Survival of NSCLC (H2122) Tumor Bearing Mice



Treatment	MST (Days)	P-value (control vs. treated)
No therapy	17	-
Cisplatin	18	NS
ENMD-1198	>53	0.0001

ENMD-1198: Excellent Preclinical Antitumor Activity

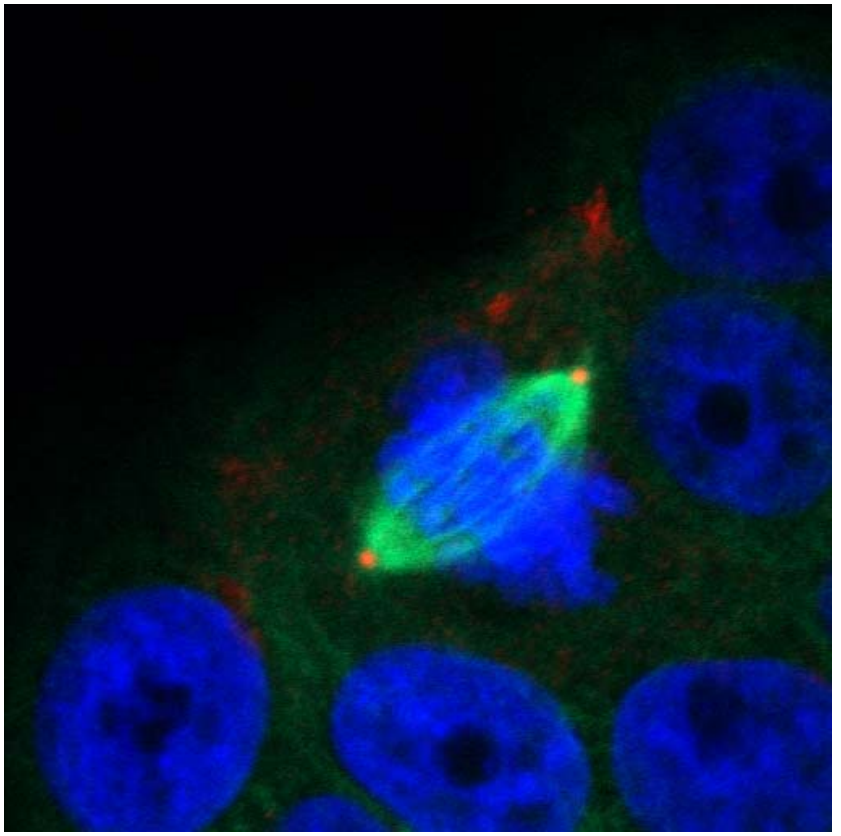
- *In vivo* antitumor activity in both hematological and solid tumor models
- Decreases HIF-1α, pNF-κB, pStat3, and angiogenesis in multiple *in vivo* tumor models
- Activity against MDR over-expressing cells as well as cells resistant to taxanes and vinca alkaloids
- Competitive advantages to today's marketed products



ENTREMED

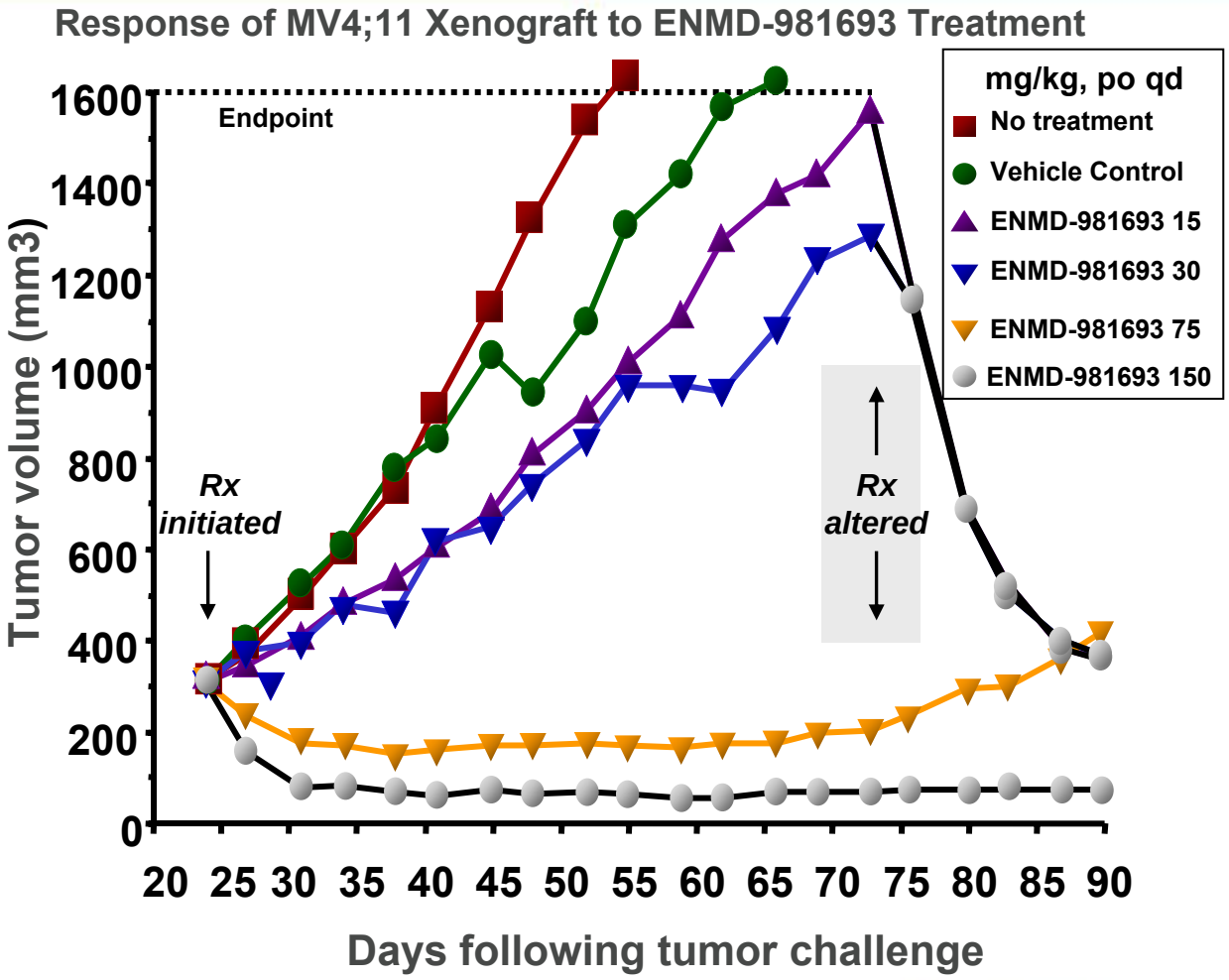
ENMD-2076 (ENMD-981693): A Selective Kinase Inhibitor

- Aurora kinase overexpression leads to tumor cell formation
- Inhibition of Auroras leads to growth arrest and cell death
- ENMD-981693 is a novel, oral, AK inhibitor with apoptotic and antiangiogenic activity
- Potent Aurora A activity
- Unique pattern of kinase inhibition
  - Proliferation: Aurora A, Flt3, Src
  - Angiogenesis: VEGFR2, FGFR, PDGFR



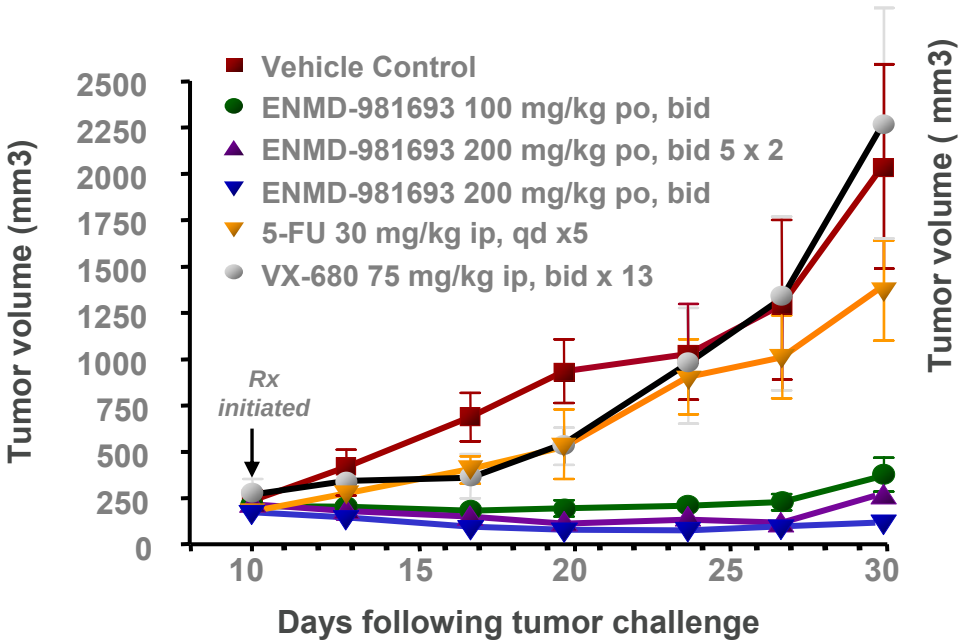
ENMD-981693: Causes Tumor Regression in Multiple Preclinical Models (e.g., Leukemia)

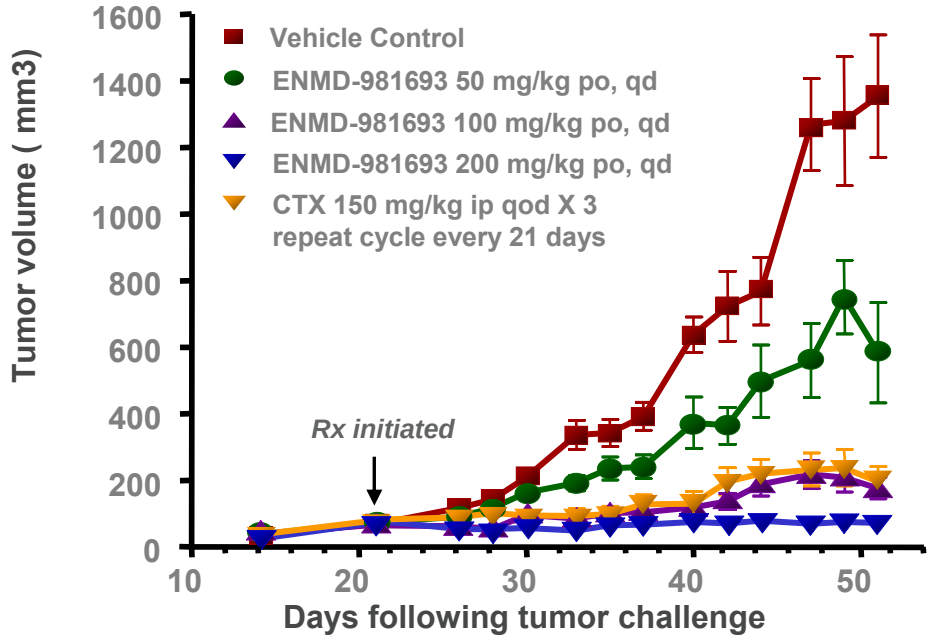
- Inhibits multiple pro-angiogenic kinases
- Induces regression in multiple models
  - colon
  - breast
  - leukemia
- Well-tolerated
- Multiple patents pending



ENTREMED

ENMD-981693 Causes Regression in Colon Cancer (HCT-116) and Breast Cancer (MDA-MB-231) Models





ENMD-2076 Has Been Selected for Clinical Use

- ENMD-2076 is the tartrate salt of ENMD-981693
- ENMD-2076 and ENMD-981693 have identical properties in preclinical models *in vivo*
- ENMD-2076 has significant manufacturing advantages relative to the free base ENMD-981693
- IND accepted by FDA; 2008 clinical trials in solid tumors and hematological cancers

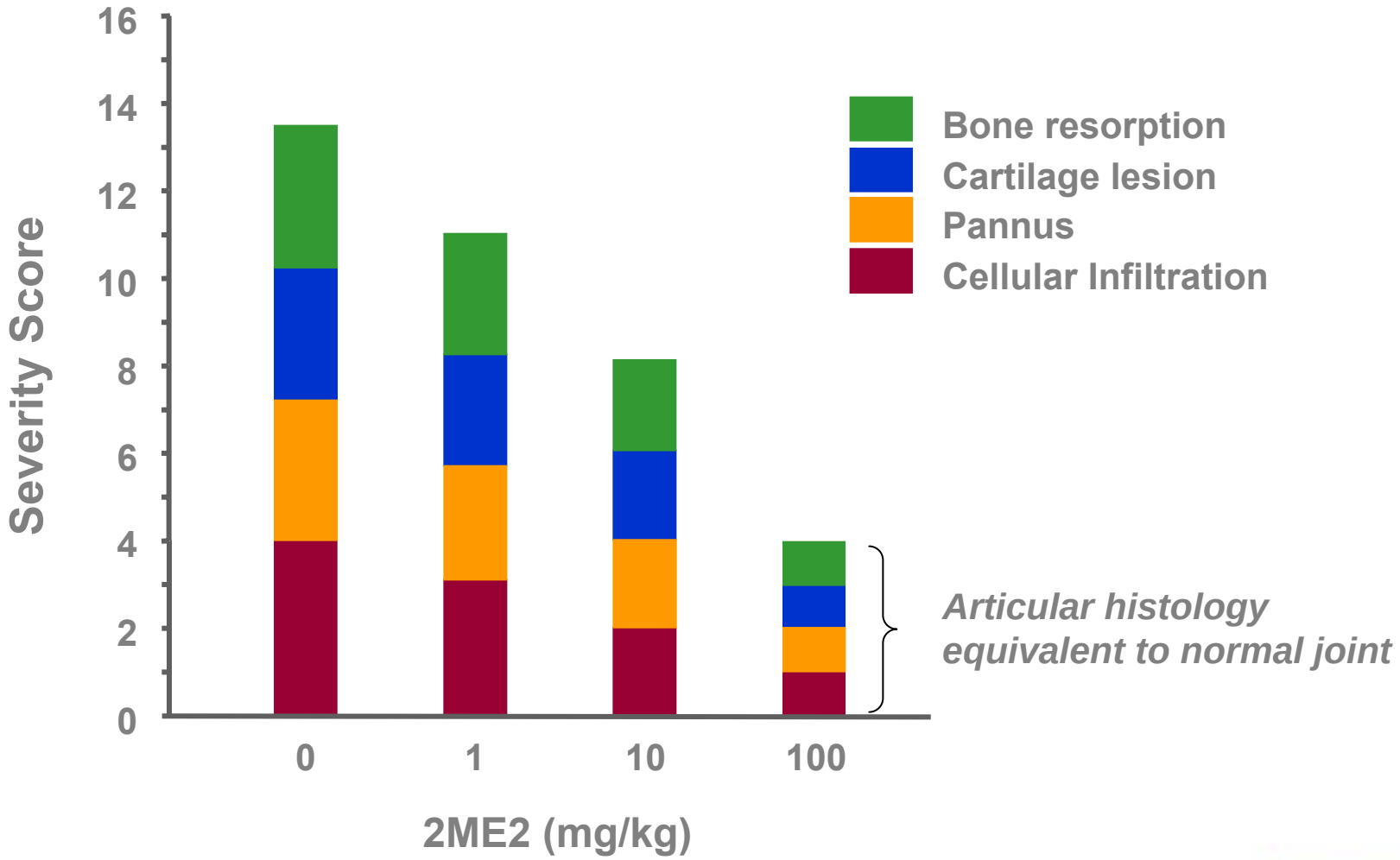
ENTREMED

Panzem®: Cross-over Opportunity Into Rheumatoid Arthritis

- Direct, dose-dependent inhibition in preclinical RA models (DMARD)
  - cellular infiltration
  - pannus formation
  - cartilage lesions
  - bone resorption
- Verified through blinded histologic & radiographic assessment
- Near complete disease inhibition in combination with methotrexate in preclinical arthritis model
- Comparable activity to Enbrel® in preclinical RA model
- Medical need for alternative, oral, well-tolerated DMARDs
- IND accepted; initiate early stage clinical trials in 2008

ENTREMED

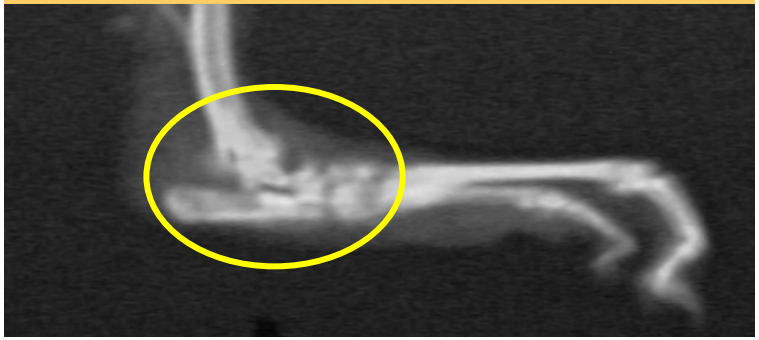
2ME2 Inhibits the Severity of Disease Progression

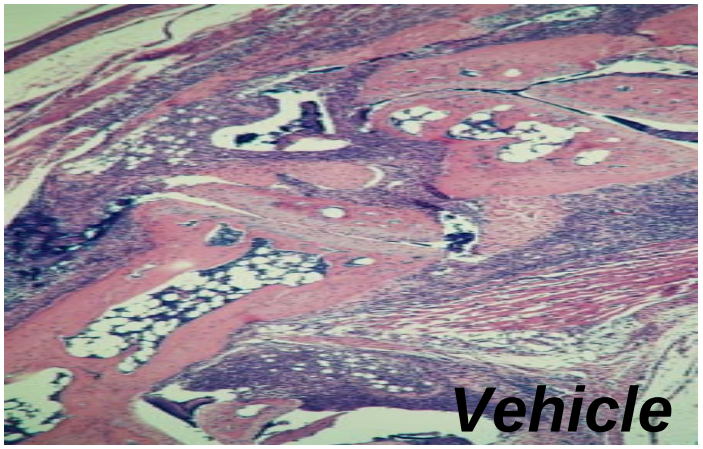


ENTREMED

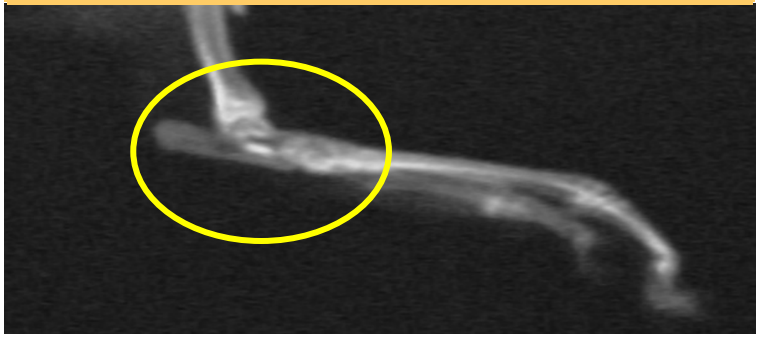
Positive Radiographic and Histomorphometric Results in Multiple RA Models

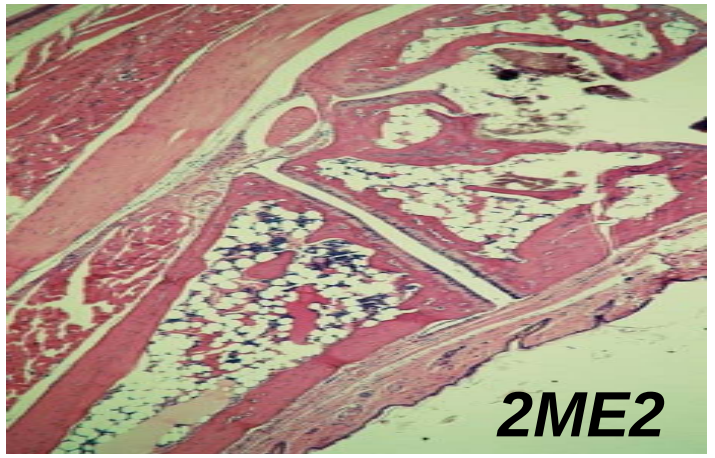
Vehicle Control





2ME2



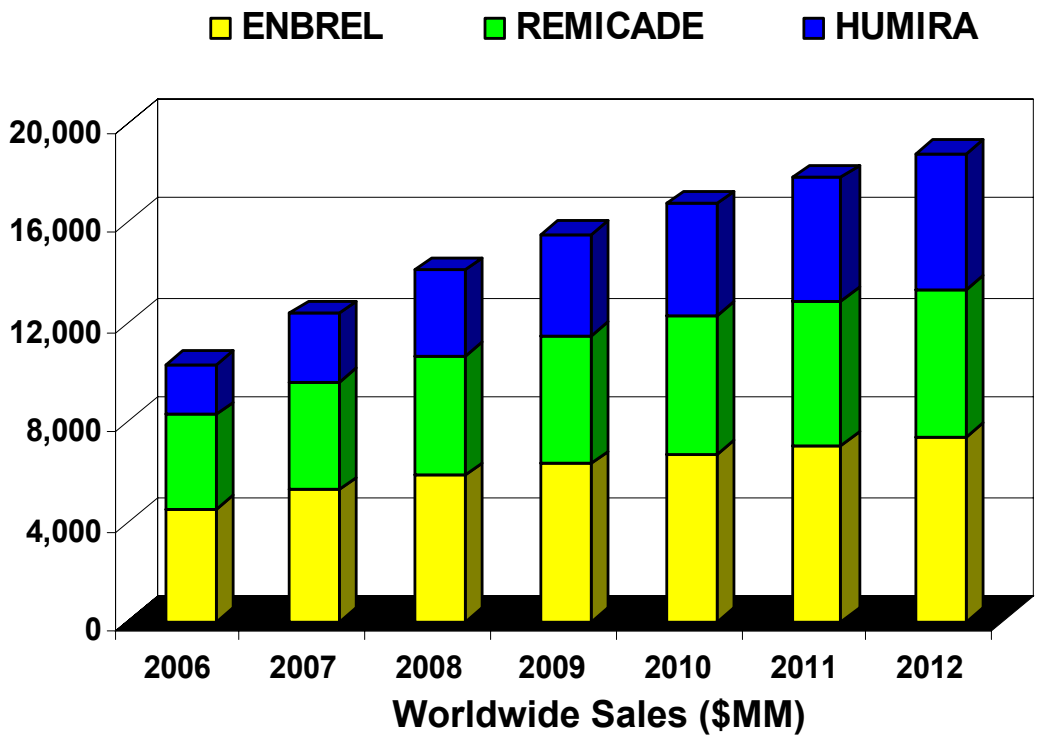


Radiograph source: Dr. Ernest Brahn, UCLA

ENTREMED

Potential First-in-Class Oral DMARD for RA

- Major cross-over opportunity
- More than 300 million cases in 7 biggest markets, growing rapidly due to aging populations
- $18 billion market
- Need for alternative DMARDs
  - Oral; small molecule
  - Unique mechanism
- Potential to compete against DMARDs (Trexall®, Plaquenil®) and Biological Response Modifiers (Enbrel®, Remicade®, Humira®)



Source: EvaluatePharma®

Experienced Management Team

Kenneth W. Bair, PhD	***SVP, Research & Development*** Chiron, Pharmacia, Novartis, Sandoz, Burroughs-Wellcome
Mark R. Bray, PhD	***VP, Research*** Miikana Therapeutics, Amgen
James S. Burns	***President & CEO*** MedPointe Pharmaceuticals, Osiris Therapeutics, Healthcare Ventures, Becton Dickinson, Booz Allen Hamilton
Dane R. Saglio	***CFO*** Public Communications Associates
Carolyn F. Sidor, MD	***VP & CMO*** UNC Healthcare System, Cato Research, DuPont
Anthony R. Treston, PhD	***VP, Product Development & Manufacturing*** National Cancer Institute
Cynthia Wong Hu, JD	***VP, General Counsel & Secretary*** Powell Goldstein, Golden American Life

ENTREMED

Solid Financial Position: Year-End 2007

	Twelve Months Ended December 31,	
	2007	2006
Total revenues	$ 7,395,651	$ 6,894,358
Research & development	23,739,392	21,671,117
General & administrative	7,386,570	7,393,722
Operating loss	(22,411,121)	(20,407,163)
Acquired in-process R&D	-	29,481,894
Net Loss	(22,411,121)	(49,889,057)
Net loss per share attributable to common shareholders (ongoing)	$ (0.28)	$ (0.30)
Net loss per share attributable to common shareholders (basic)	$ (0.28)	$ (0.71)
Weighted avg. number of shares outstanding (basic)	84,166,552	71,873,734
Cash & short term investments	$47,748,191	$50,570,097

ENTREMED

Focused Programs Moving Forward

- Increase our development investments on oral oncology drugs with single agent activity, specifically:
  - MKC-1
  - ENMD-1198
  - ENMD-2076

- Shift development of Panzem® for oncology to Rheumatoid Arthritis
  - Patients currently enrolled in oncology trials will continue to receive Panzem®

- Panzem® for Rheumatoid Arthritis
  - Initiate normal volunteer study; other early studies as warranted
  - Seek development/license partner

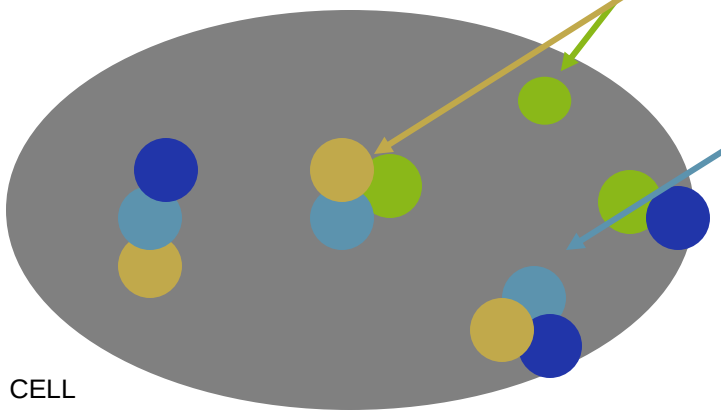
ENTREMED

2008 Clinical and Non-Clinical Milestones

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)	2Q08	
	Initiate combination trial with radiation in pancreatic cancer	2Q08	
	Report interim results for Phase 1 leukemia	2H08	
	Report interim results for Phase 2 pancreatic	4Q08	
ENMD-1198	Complete Phase 1b enrollment	2Q/3Q08	
	Initiate expanded Phase 1 or Phase 2 trial	3Q/4Q08	
	Report interim data for Phase 1b	4Q08	
ENMD-2076	Initiate Phase 1 trial in solid tumors	1Q08	
	Initiate Phase 1 trial in hematological tumors	3Q08	
	Co-development alliance	2H08/1H09	
Panzem® (2ME2)	Initiate normal volunteer trial in rheumatoid arthritis	1H08	
Panzem® NCD	Report interim data for Phase 2 Avastin® trial in carcinoid tumors	1Q08	✓

Multiple EntreMed Value Drivers: A Strong Clinical Pipeline Backed by Solid Translational Research

Clinical Product Candidates with Multiple Mechanisms of Action



MKC-1 Phase 2 Oncology
- Inhibits PI3K-Akt-mTOR pathway
- Binds Importin β
- Destabilizes microtubules

ENMD-1198 Phase 1 Oncology
- Destabilizes microtubules
- Modulates transcription factors

ENMD-2076 Active IND
- Selective kinase inhibitor, including Aurora A & growth factors

Panzem® RA Active IND
- Inhibits cytokine production
- Inhibits angiogenic growth factors


ENTREMED