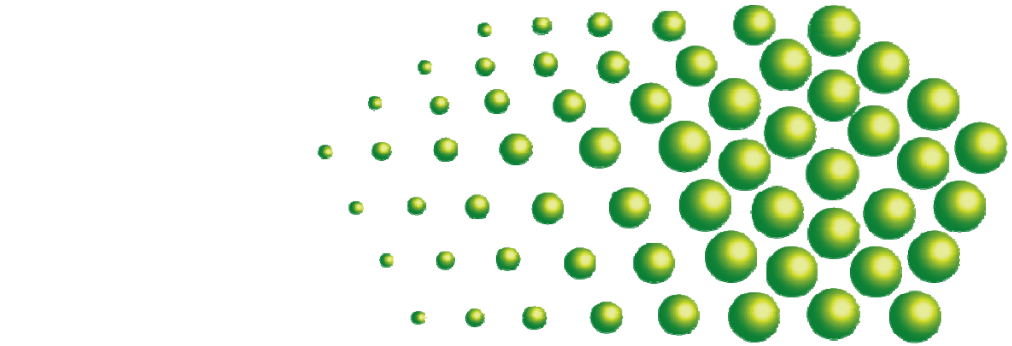


SuperGen®

Annual Stockholders Meeting

2008

Safe Harbor Statement

During the course of this presentation we will make forward-looking statements that involve risks and uncertainties associated with a developing pharmaceutical company. Actual results could differ materially from those projected in the forward-looking statements as a result of the risk factors discussed in SuperGen's filings with the U.S. Securities and Exchange Commission, including but not limited to, our most recent Form 10-K and Form 10-Q, as well as our reports on Form 8-K. These documents contain and identify important factors that could cause results to differ materially from those contained in any forward-looking statements.


A pharmaceutical company developing innovative products for oncology patients

SuperGen Evolution to a Discovery & Development Company

2004

- Completed Pivotal Phase 3 Dacogen® Trial
- Submitted Dacogen NDA for MDS
- Licensed Dacogen to MGI PHARMA worldwide

2005

- Received Dacogen Approvable letter from FDA in MDS
- Filed $100 M Shelf Registration
- US Nipent® Sales Increased to $15 M
- Prepared for European Re-launch of Nipent

2006

- Dacogen NDA Approved for MDS
- MGI Sublicensed Dacogen ex-North America to Cilag GmbH
- Commercial Unit & Products Sold to Mayne Pharma
- Completed Acquisition of Montigen Pharmaceuticals

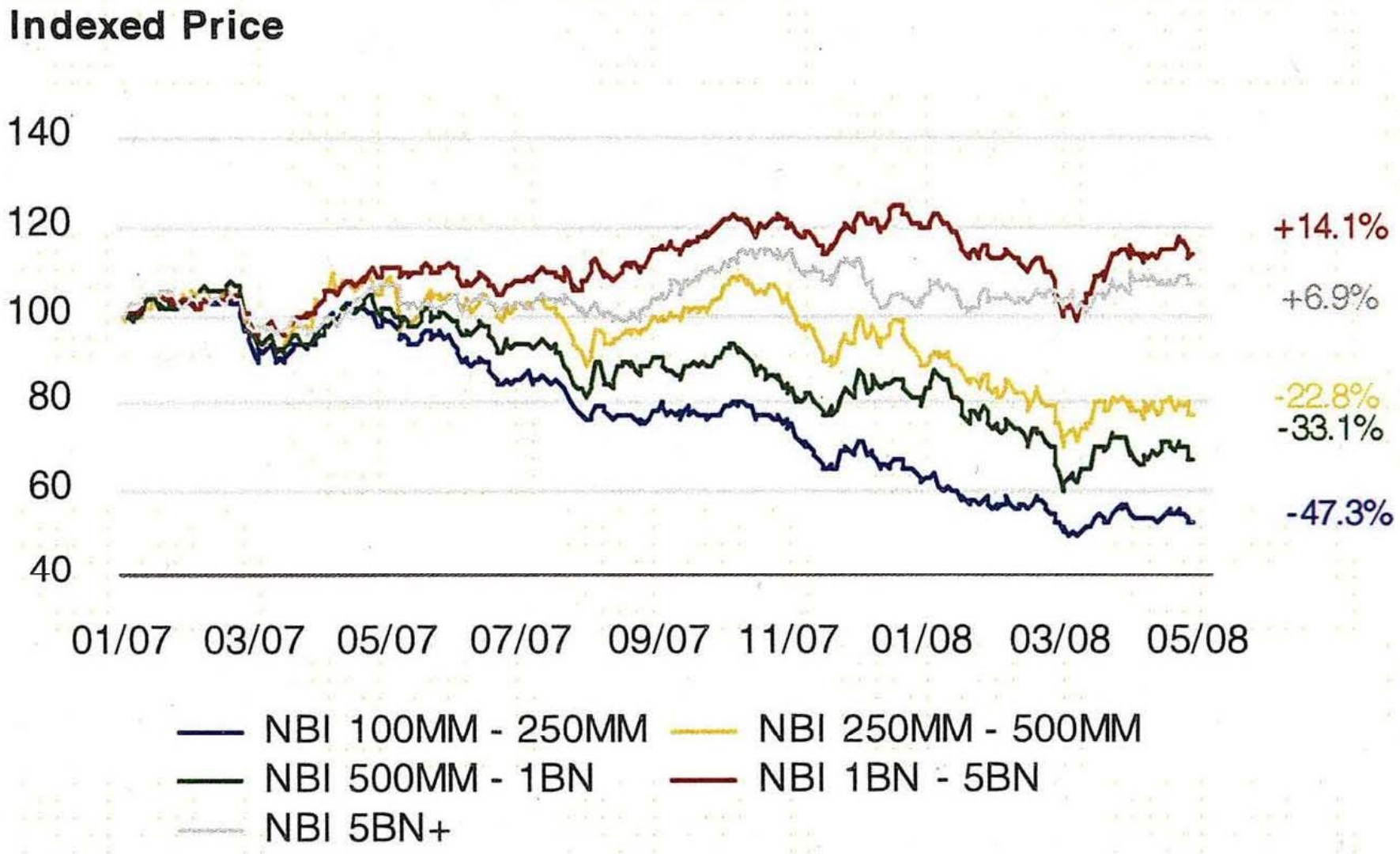
2007 Highlights

- Earned $22.3 M in royalty payments from MGI PHARMA (*)
- Sold commercial franchise to Mayne Pharma: $42 M (**)
- Reported a profit for the first time in Company history
- Ended the year with $91 M in operating cash and no debt (***)
- Initiated a Phase 1 and Phase 1b combination trial for MP-470
- Advanced 3 product candidates to pre-clinical evaluation testing
- Restructured Clinical, Regulatory & Legal Teams
- Established Scientific Advisory Board (SAB)

** MGI PHARMA acquired by Eisai Co., Ltd.*
** * Mayne Pharma acquired by Hospira, Inc.*
**** 2007 4th quarter unrestricted cash, cash equivalents and marketable securities (current & non-current)*

US Biotech Equity Market Performance

2007-2008 YTD PERFORMANCE



BioWorld Stock Report – June 9th

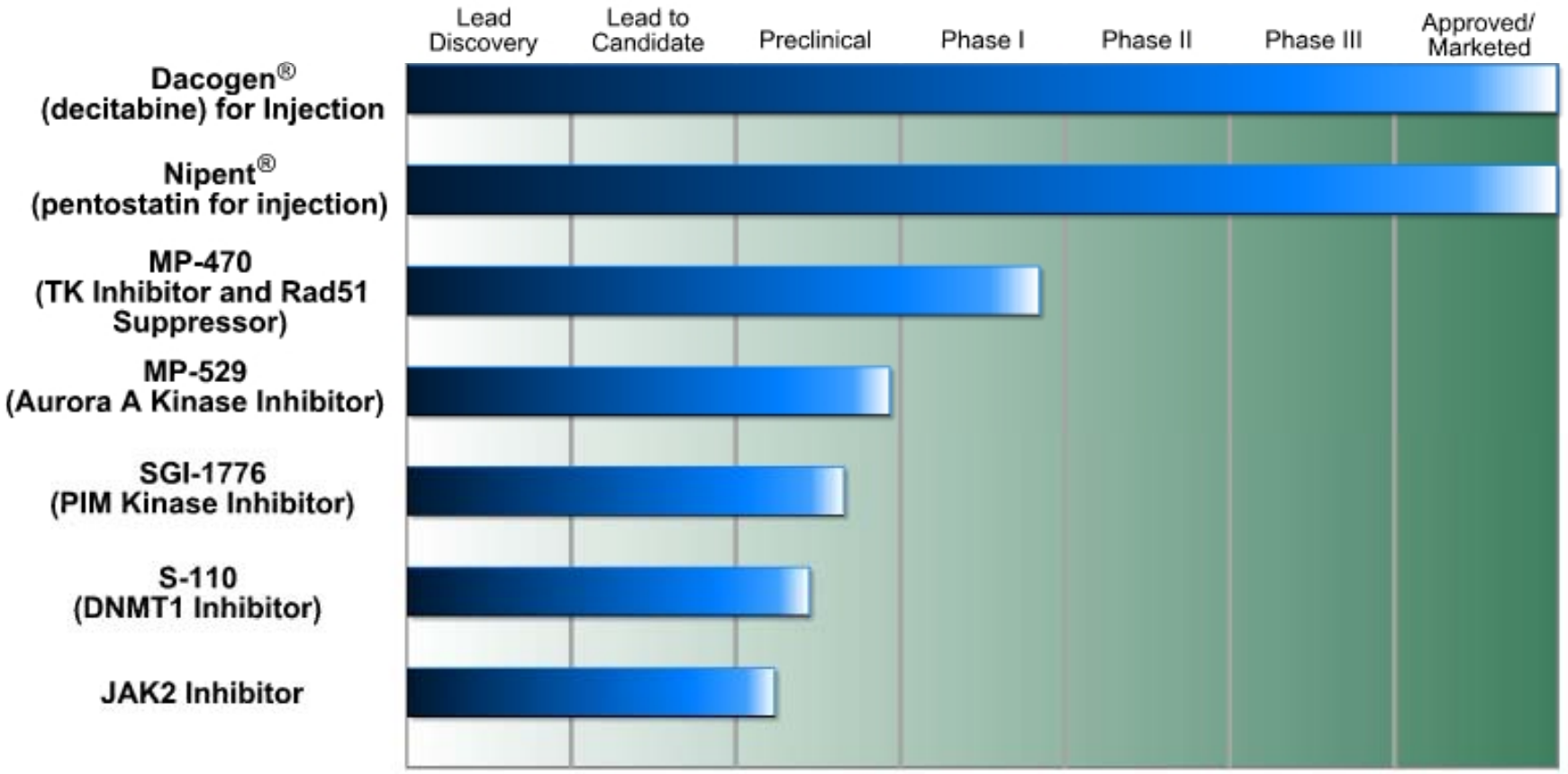
- Year to Date, 35% of public biotech companies are down by 35% or more, including:
  - Affymetrix -48.49%
  - BioCryst -54.21%
  - Human Genome Sciences -44.44%
  - Invitrogen -35.84%
  - Protein Design Labs -39.84%
  - Regeneron -38.63%
  - Xoma -44.54%
- Of the subset of companies down YTD by 35% or more, the average decline is 51%
- SUPG is down 35% YTD as of this report

Business Overview

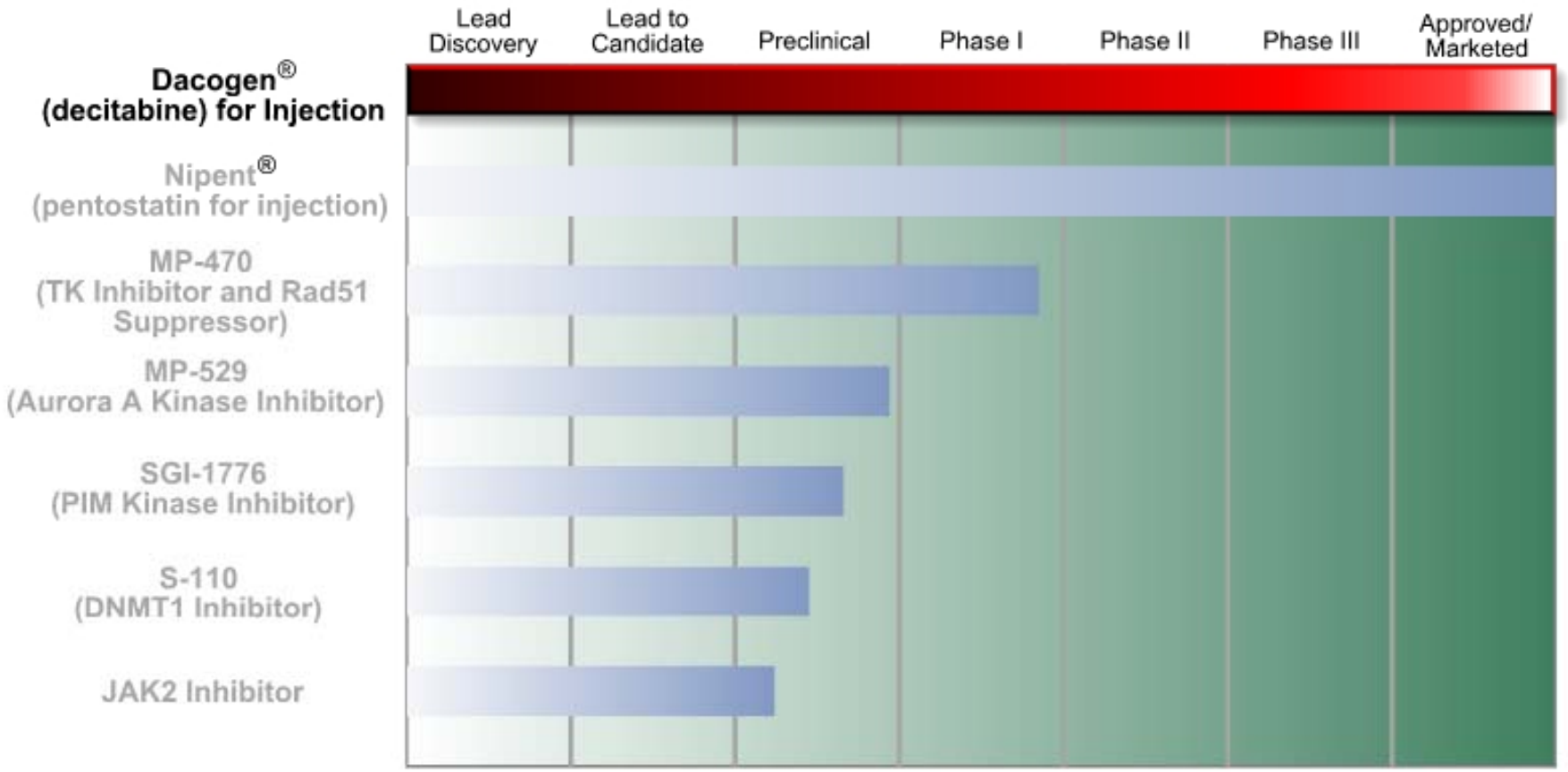
- Marketed, Revenue Generating Products
  - Dacogen® and Nipent®
- Strong Financial Position:
  - $90.8 M in Cash (*) and No Debt
- Significant Commercial Partners
  - Eisai Co., Ltd. / JNJ / Hospira, Inc.
- Innovative Discovery Process
  - Sustainable R&D engine
- Diverse Oncology-based Product Pipeline
  - Mitigates Development Risks
- Proven Regulatory Success
  - Five Regulatory Approvals
- Employees: 81 (~ 70% in R&D)

** 2008 1st quarter unrestricted cash, cash equivalents and marketable securities (current & non-current)*

Marketed & Pipeline Products



Dacogen ®


Lead Discovery
Lead to Candidate
Preclinical
Phase I
Phase II
Phase III
Approved/ Marketed
Dacogen®
(decitabine) for Injection
Nipent®
(pentostatin for injection)
MP-470
(TK Inhibitor and Rad51 Suppressor)
MP-529
(Aurora A Kinase Inhibitor)
SGI-1776
(PIM Kinase Inhibitor)
S-110
(DNMT1 Inhibitor)
JAK2 Inhibitor

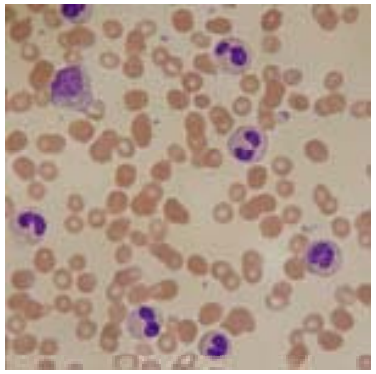
Dacogen® (decitabine) for Injection

- FDA Approved Indication: Myelodysplastic Syndrome (MDS)
  - Broad Label - All FAB Classifications
  - IPSS (Int-1, Int-2 & High Risk)
  - *de novo* & secondary MDS
- Additional Development
  - MDS Survival Phase III EORTC trial 1H 08
  - JNJ Guided to EMEA submission in 2008
  - Elderly AML Phase III ongoing
  - Oral decitabine in pre-clinical research phase
- Licensed to Eisai Worldwide
  - Sublicensed to JNJ outside of North America
  - $17.5 M milestone payments outstanding
  - 20% – 30% royalty on all worldwide sales
  - Eisai acquired MGI PHARMA Q1 08

DACOGEN™
decitabine for injection

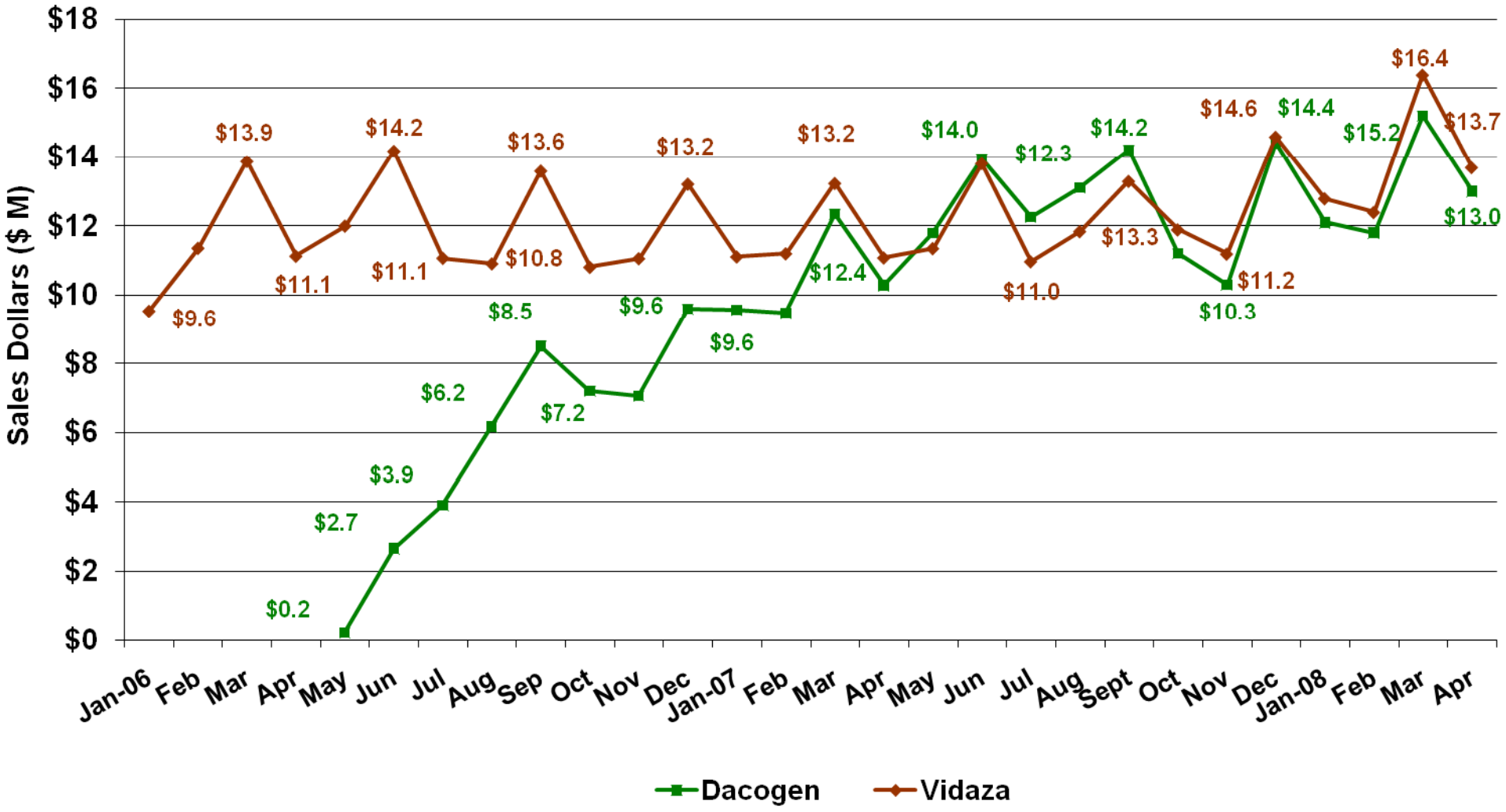
Dacogen ® - MDS Market

- U.S. MDS market estimated to exceed $1 B
- Eisai reported $121 M in 2007 sales
- 2008 sales growth of 30% plus over 2007
- Eisai Guidance: 2011 U.S. sales of $300 - $350 M



  - DNA hypomethylation therapy usage will expand from 45% to 90% of the MDS market
  - Dacogen cycle usage will grow from an average of five cycles to eight cycles
  - 400 commercial FTE's supporting Dacogen and the oncology franchise
- SuperGen Guidance: 2008 Royalty Revenue $32 – 35 M

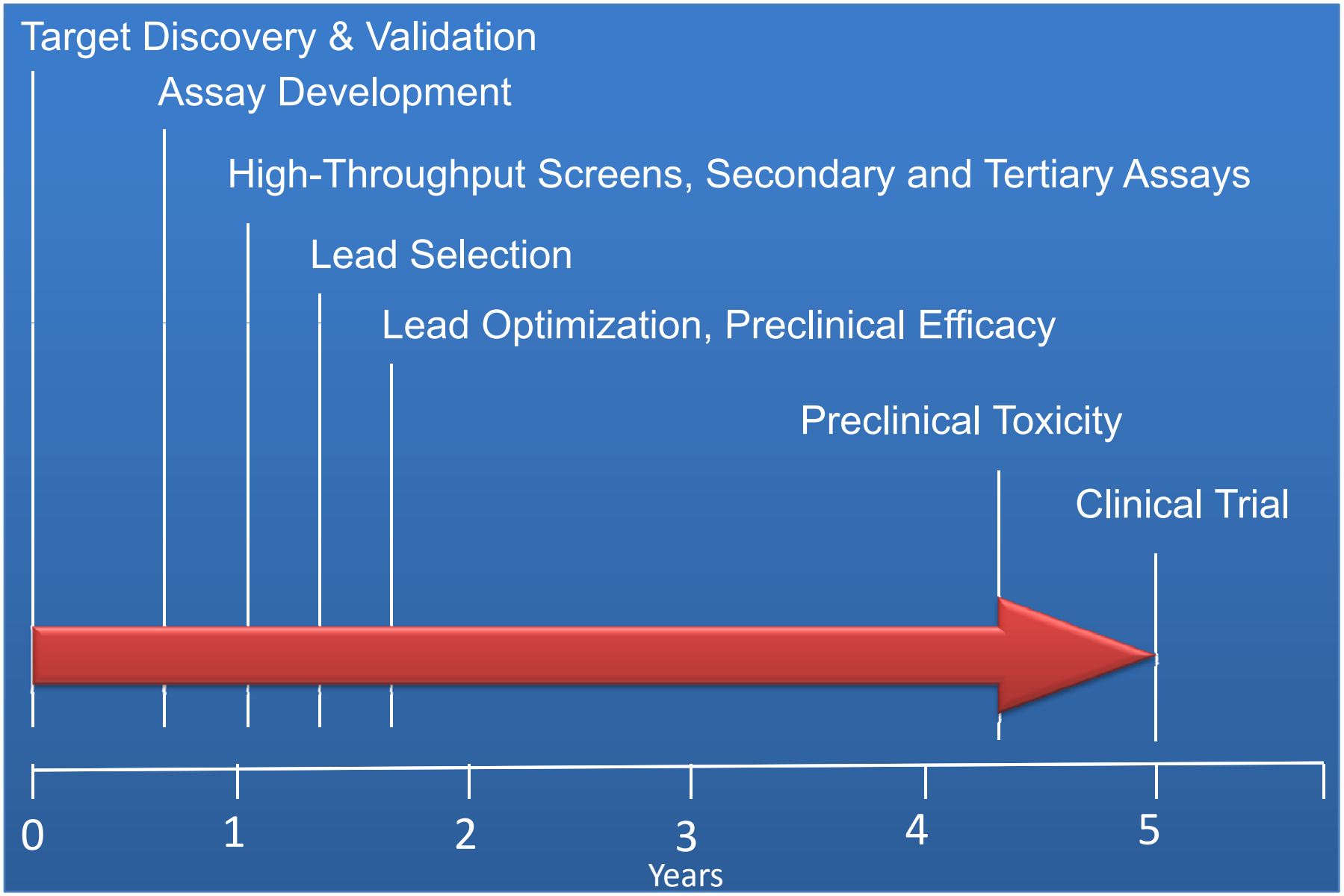
Dacogen and Vidaza IMS Sales - Total Market



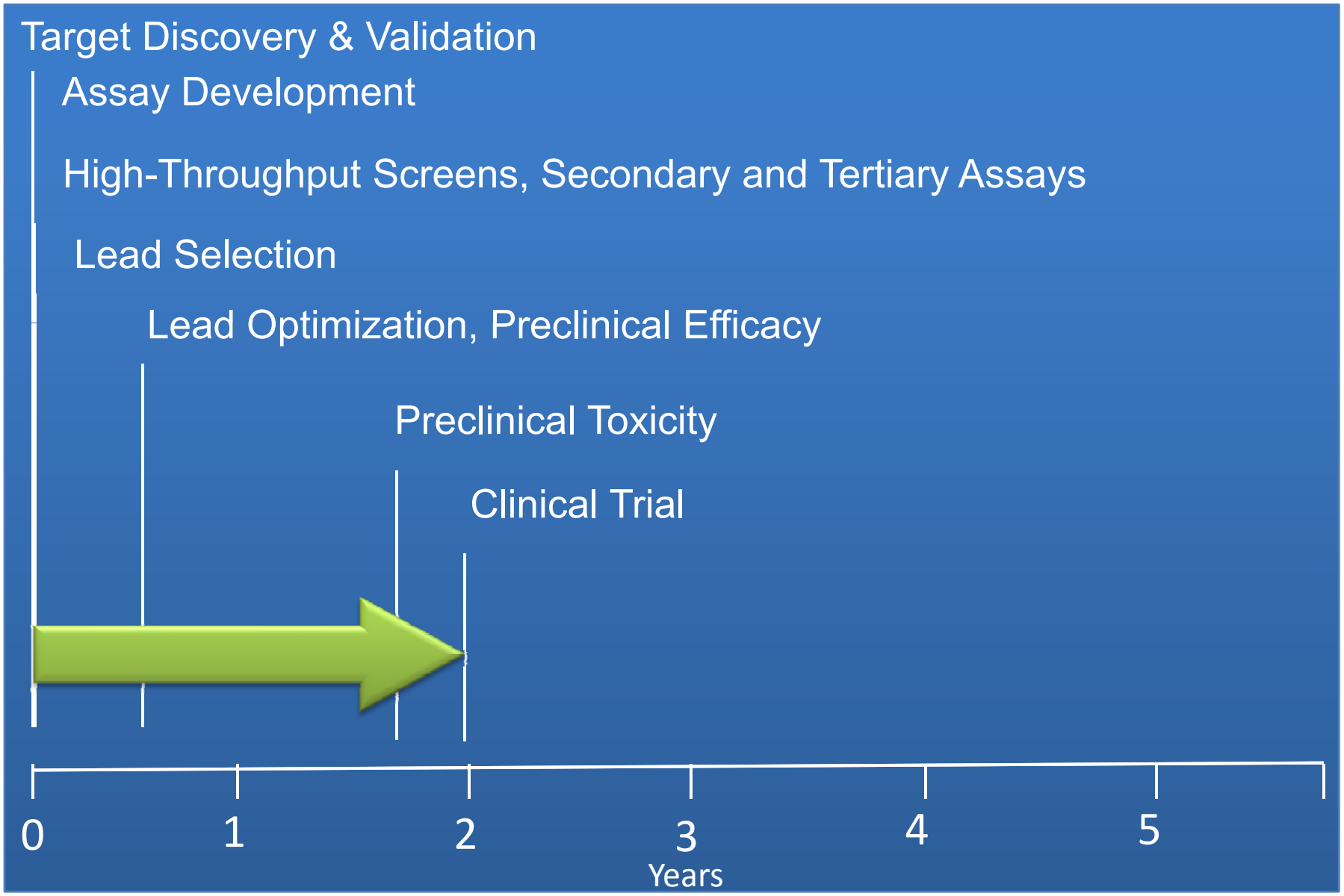
Source: IMS National Sales Perspective

Note: Interpret with caution due to the IMS 4-4-5 week data collection methodology

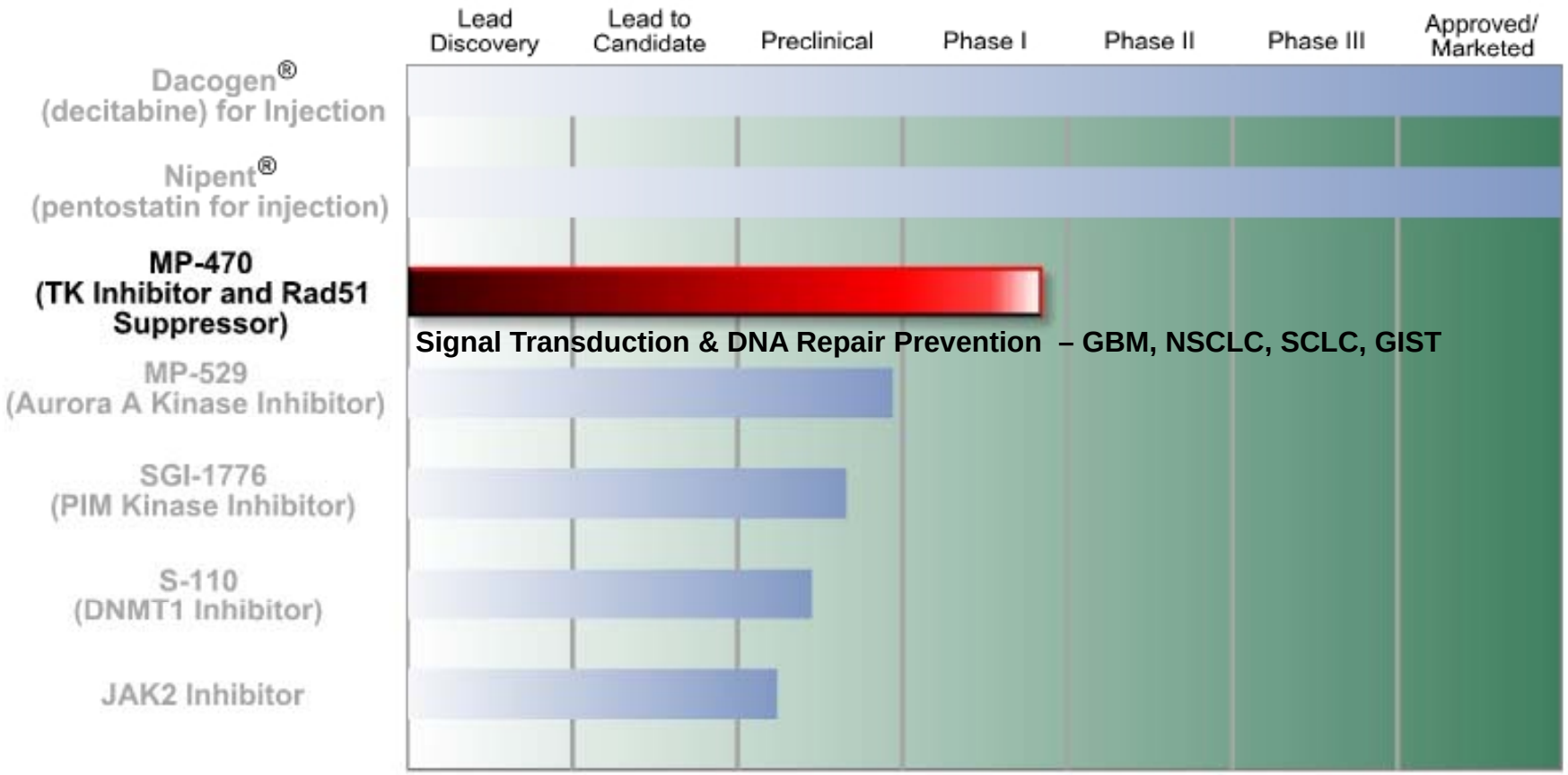
Typical Drug Discovery Process



SuperGen's Drug Discovery Process



MP-470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Lead to Candidate
Preclinical
Phase I
Phase II
Phase III
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Dacogen® (decitabine) for Injection
Nipent® (pentostatin for injection)
MP-470 (TK Inhibitor and Rad51 Suppressor)
Signal Transduction & DNA Repair Prevention – GBM, NSCLC, SCLC, GIST
MP-529 (Aurora A Kinase Inhibitor)
SGI-1776 (PIM Kinase Inhibitor)
S-110 (DNMT1 Inhibitor)
JAK2 Inhibitor

MP-470

- Orally bioavailable, selective tyrosine kinase inhibitor
  - ➢ Phase 1 & 1b trials ongoing
  - ➢ Novel activity profile with low nM activity
    - Mutant c-KIT, mutant PDGFRα and mutant FLT3
    - Inhibits c-MET phosphorylation
    - Synergizes targeted agents (EGFR inhibitors)
- Suppresses DNA repair through Rad51, improves activity of many DNA damaging therapies
  - ➢ Radiation, platinum agents, & topo. I and II inhibitors
- Activity (xenograft) as single agent & in combination
- Benign preclinical toxicity profile
- Pharmacological profile suggests broad clinical potential

MP-470 Clinical Studies

- **Phase 1 / 1b**
  - Single Agent – Maximum Tolerated Dose (MTD)
  - Standard of Care (SOC) Combination MTD
  - Fed-Fasted Pharmacokinetic
  - Glioblastoma Multiforme (GBM)
    - Radiation Therapy (XRT) + temozolomide (TMZ)
- **Phase 2** (potential)
  - Single Agent Therapy in Gastrointestinal Stromal Tumors (GIST)
  - Combination Therapy in Lung Cancers (NSCLC and SCLC)
  - XRT + TMZ in GBM

Safety / Tolerability – Single Agent

- Safe and well tolerated at daily doses to 900 mg
- No Dose Limiting Toxicities (DLTs) or NCI Grade-4 toxicities observed
- Two Grade-3 (non-DLT) toxicities – different patients
  - Anxiety on Day 26 (700 mg)
  - Liver enzyme (AST) elevation on Day 15 (700 mg)
- Dose escalation to 1200 mg/day for next cohort

MP-470 Combination Study

Safety and Dose Finding Study of Oral MP-470 in Combination with Standard-of-Care (SOC) Chemotherapy Regimens and Targeted Agents

- Objectives:
  - Determine MTD of MP-470 with SOC Agents
  - Estimate Response Rates
  - Pharmacokinetics of SOC Agents
  - Pharmacodynamics
- Major Eligibility:
  - Adults with disease appropriate for treatment with SOC agents

Locations: START, CTRC, Premier Oncology, DFCI, (2 sites in UK)

SOC Combinations

- Carboplatin / Paclitaxel
  - NSCLC, Ovarian
- Carboplatin / Etoposide
  - SCLC
- Topotecan (Hycamtin®)
  - SCLC, Ovarian, Cervical
- Docetaxel (Taxotere®)
  - NSCLC, Breast, Gastric, Prostate, Head & Neck
- Erlotinib (Tarceva®)
  - NSCLC, Pancreatic

Patient 102

SuperGen

Case narrative

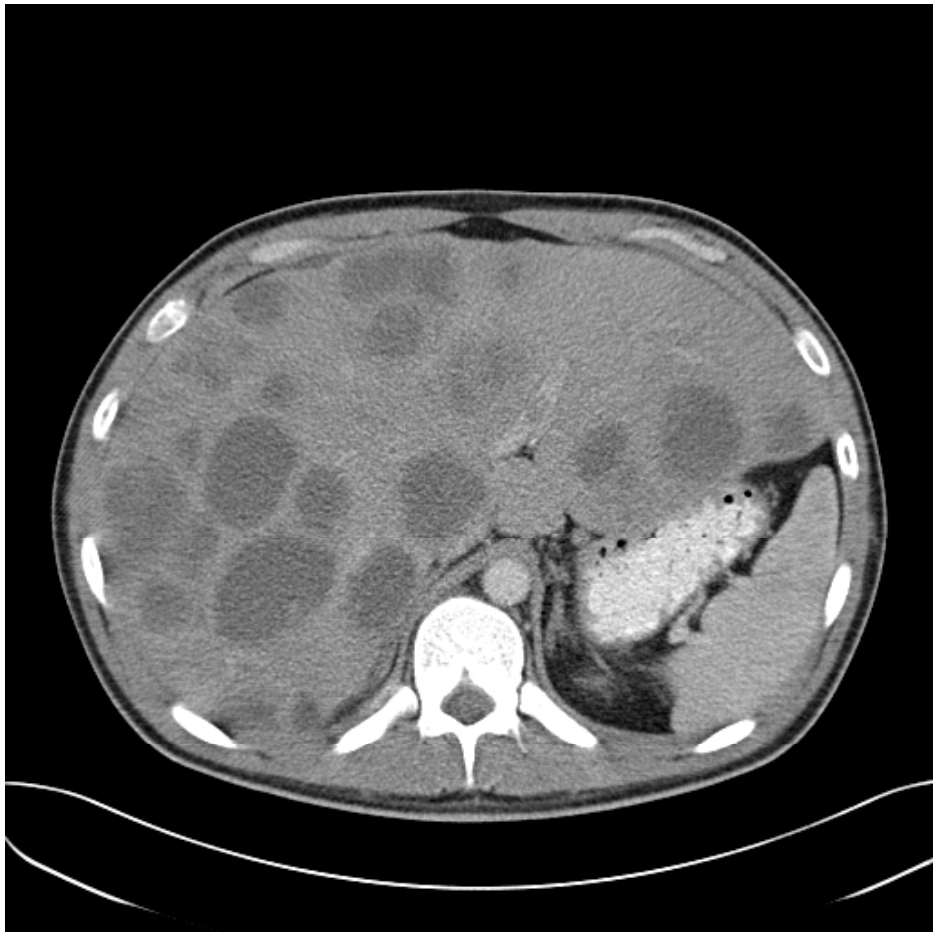
- 24 y/o male
- Neuroendocrine tumor (small cell histology) with pronounced liver metastasis
- Prior lines of therapies
  - Cisplatin / etoposide (4 cycles); best response: SD
  - Topotecan (2 cycles); best response: PD

- Enrolled into SGI-0470-02 on Jan 22, 2008
  - Carboplatin AUC 6 mg•min/mL + paclitaxel 200 mg/m^2

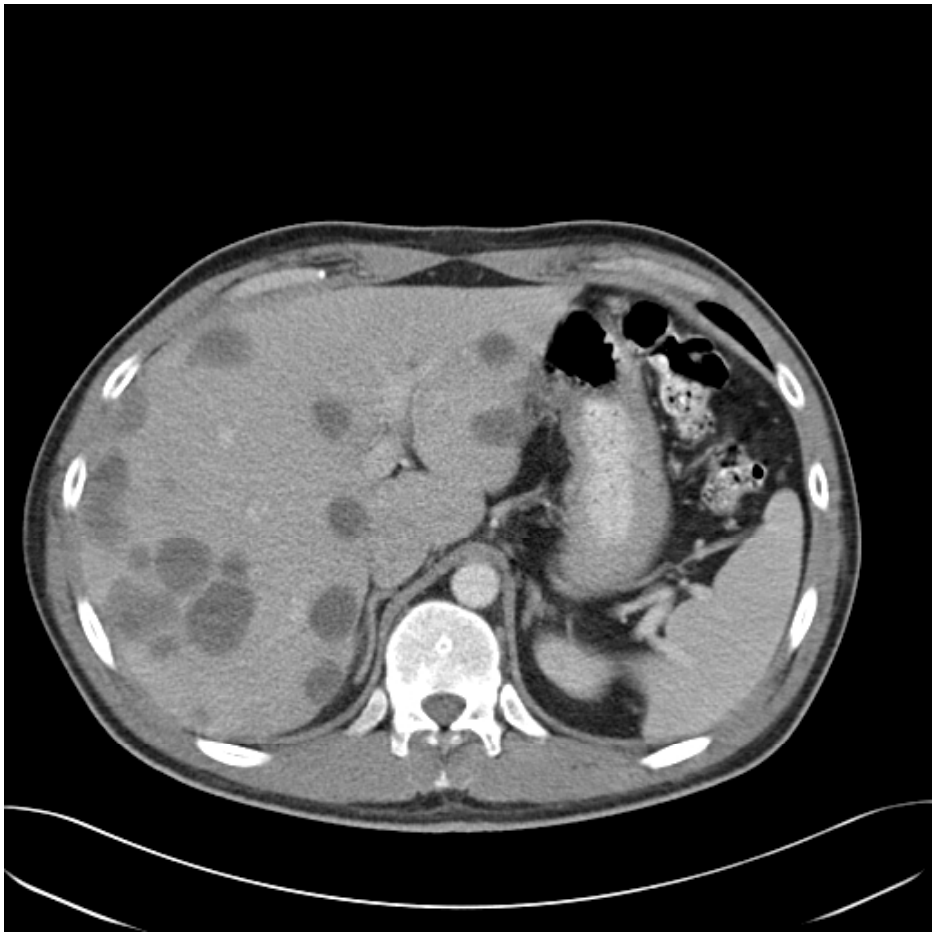
Carboplatin / Paclitaxel + MP-470

SuperGen

Baseline



Post 2 Courses

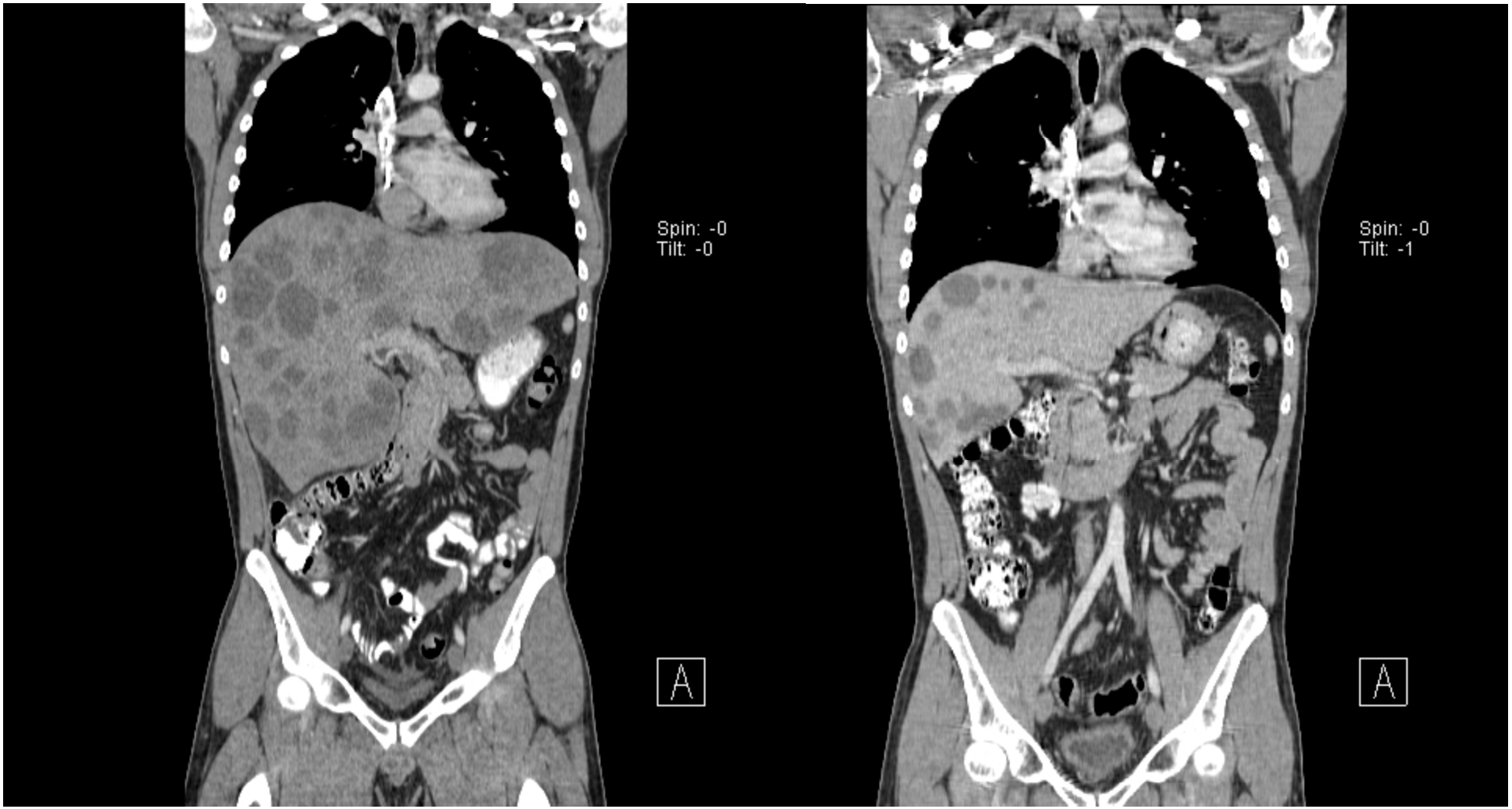


Carboplatin / Paclitaxel + MP-470

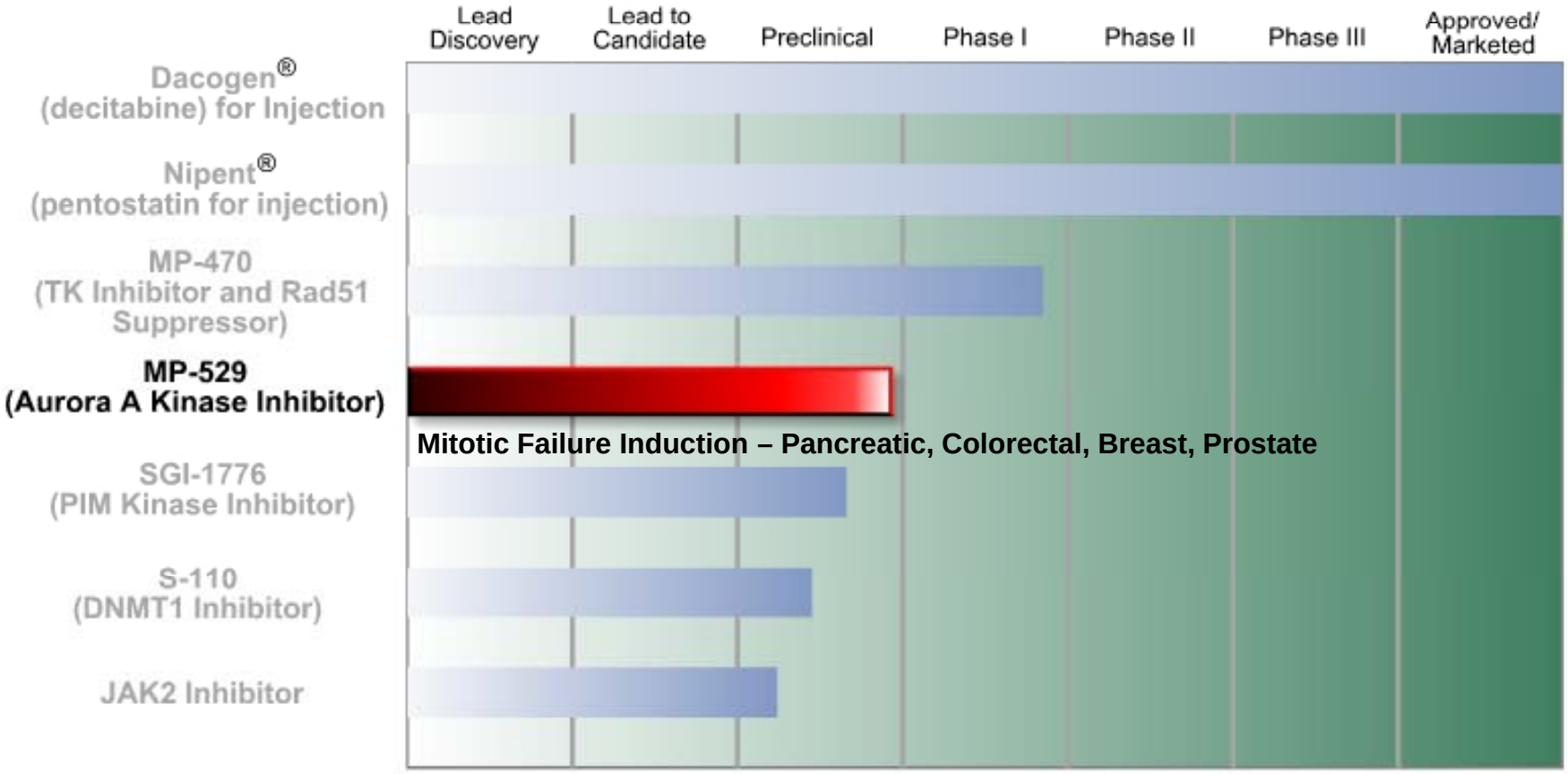
SuperGen

Baseline

Post 2 Courses



MP-529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MP-470
(TK Inhibitor and Rad51 Suppressor)
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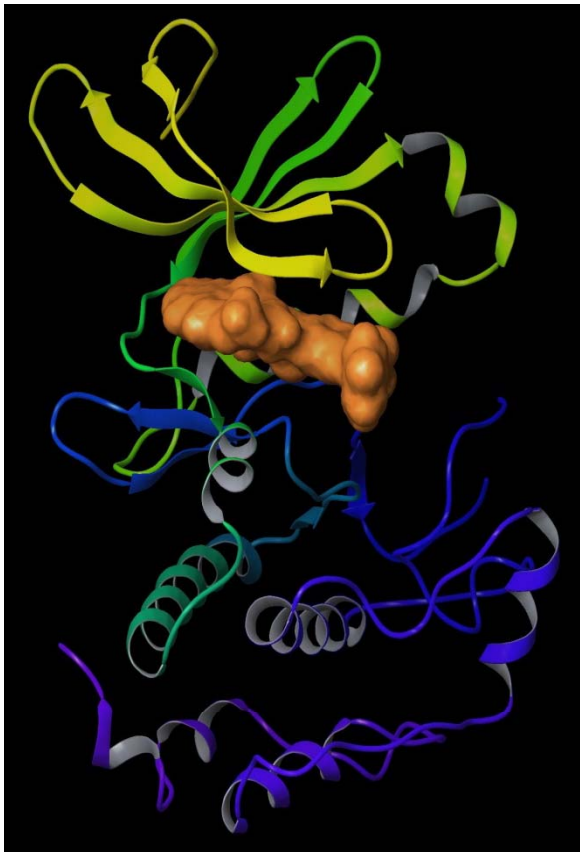
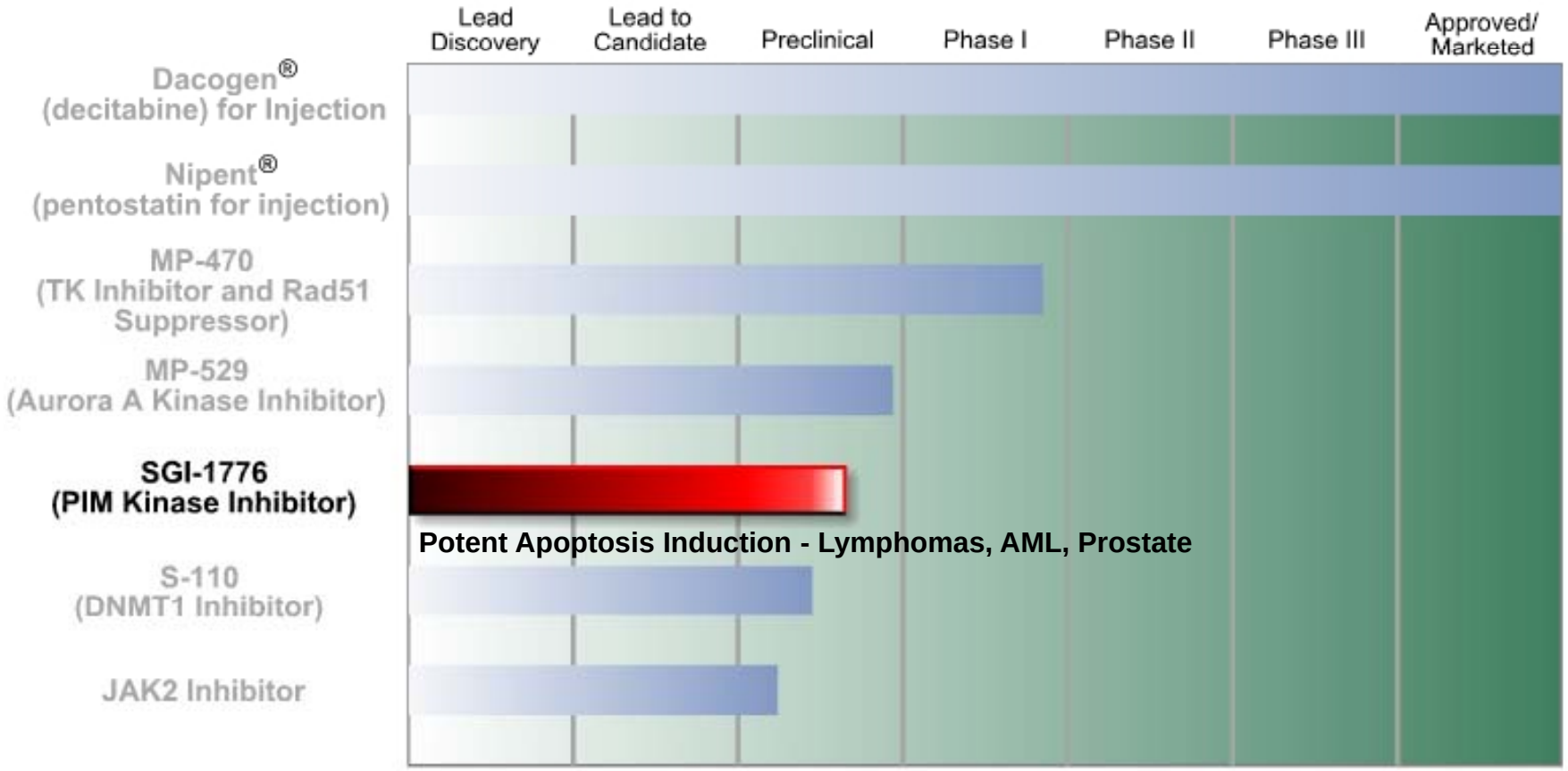
(Aurora A Kinase Inhibitor)
Mitotic Failure Induction – Pancreatic, Colorectal, Breast, Prostate
SGI-1776
(PIM Kinase Inhibitor)
S-110
(DNMT1 Inhibitor)
JAK2 Inhibitor

MP-529: Selective Aurora A Kinase Inhibitor

- 1,000-fold selectivity for Aurora A versus Aurora B
- Rapid onset of irreversible apoptosis
- Significant activity in human tumor xenograft models
  - Pancreatic, Colorectal, Breast, Prostate
- Highly stable
- Long half-life
- Formulation optimization underway



SGI-1776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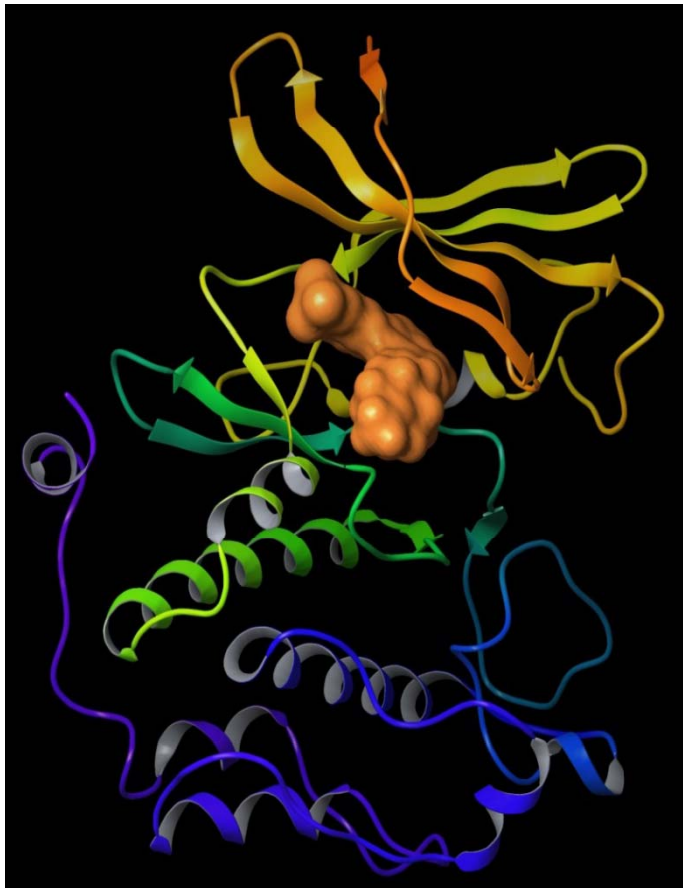
SGI-1776 (PIM Kinase Inhibitor)
Potent Apoptosis Induction - Lymphomas, AML, Prostate
S-110 (DNMT1 Inhibitor)
JAK2 Inhibitor

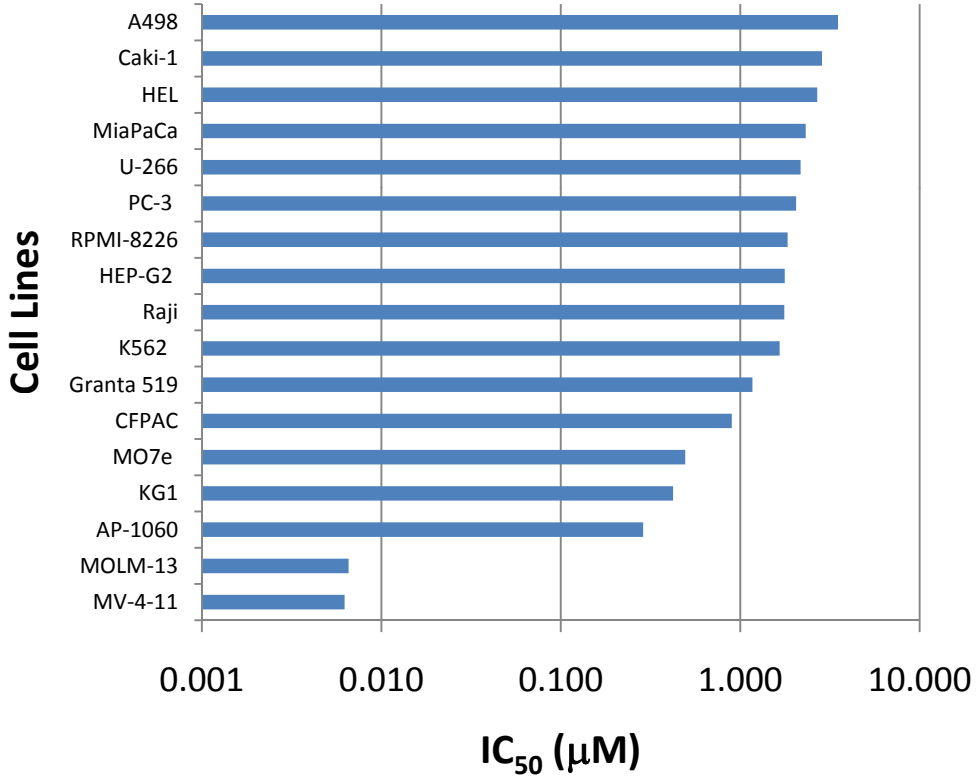
SGI-1776 PIM Kinase Inhibitor

- Inhibits PIM 1, 2 & 3 in nanomolar concentrations
- Modulates growth signals and transcription
- Activity in human xenograft models
  - Solid Tumors
  - Leukemia & Lymphoma
- IND submission planned for 2H 08



SGI-1776 *In Vitro* Activity

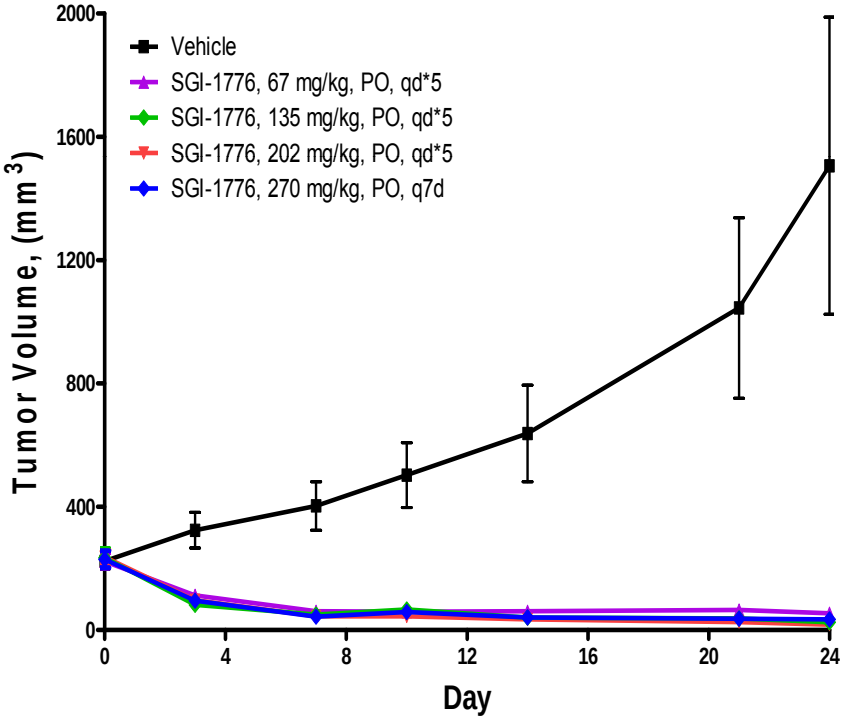
Kinase IC_{50} (nM)	
Pim-1	*7*
Pim-2	*363*
Pim-3	*69*



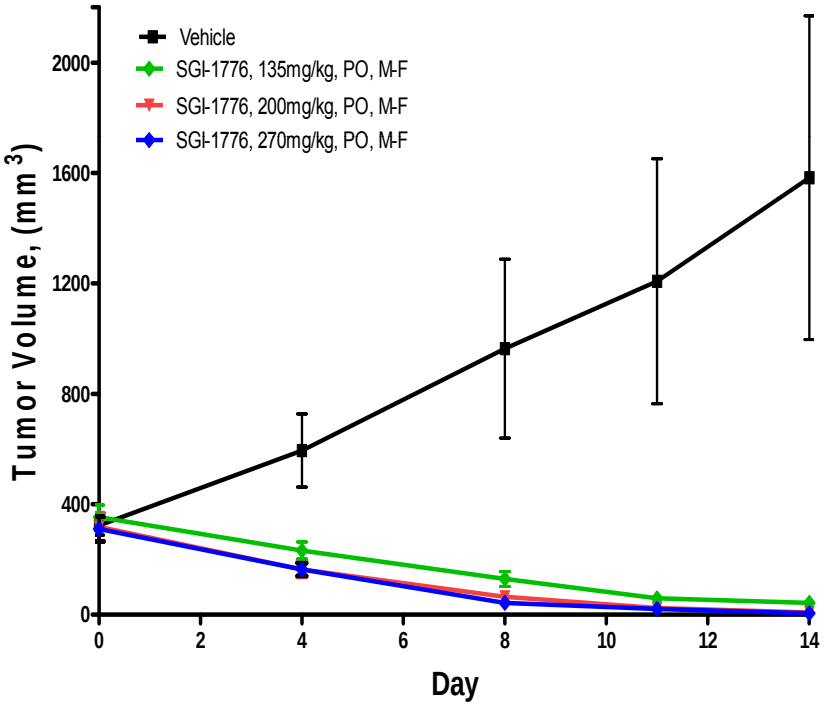
In Vivo Activity of SGI-1776

Acute Myeloid Leukemia Cell Lines

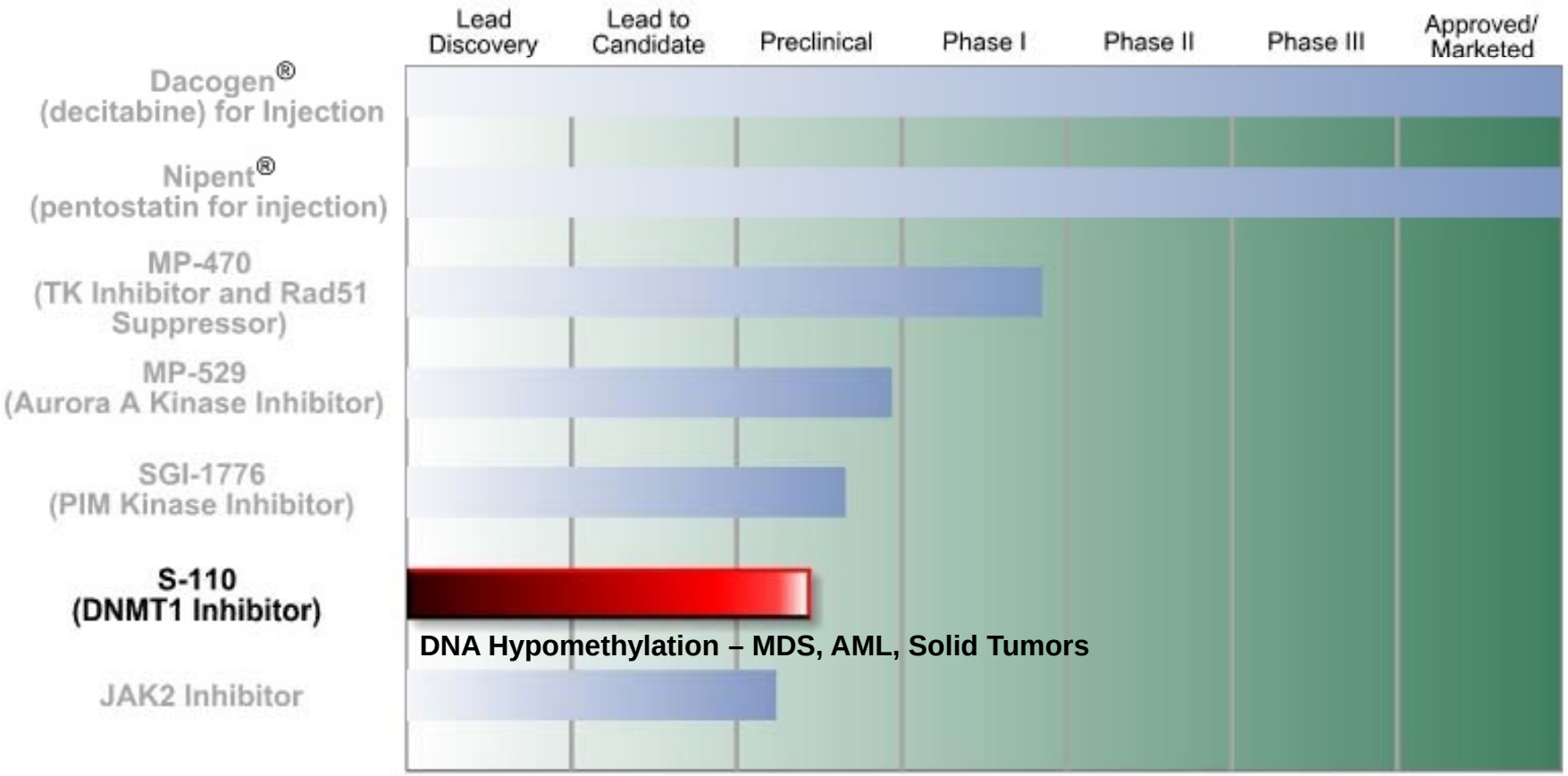
SGI-1776 bis(bisulfate) activity against MV-4-11 xenografts



SGI-1776 bis(bisulfate) activity against MOLM-13 xenografts



S-110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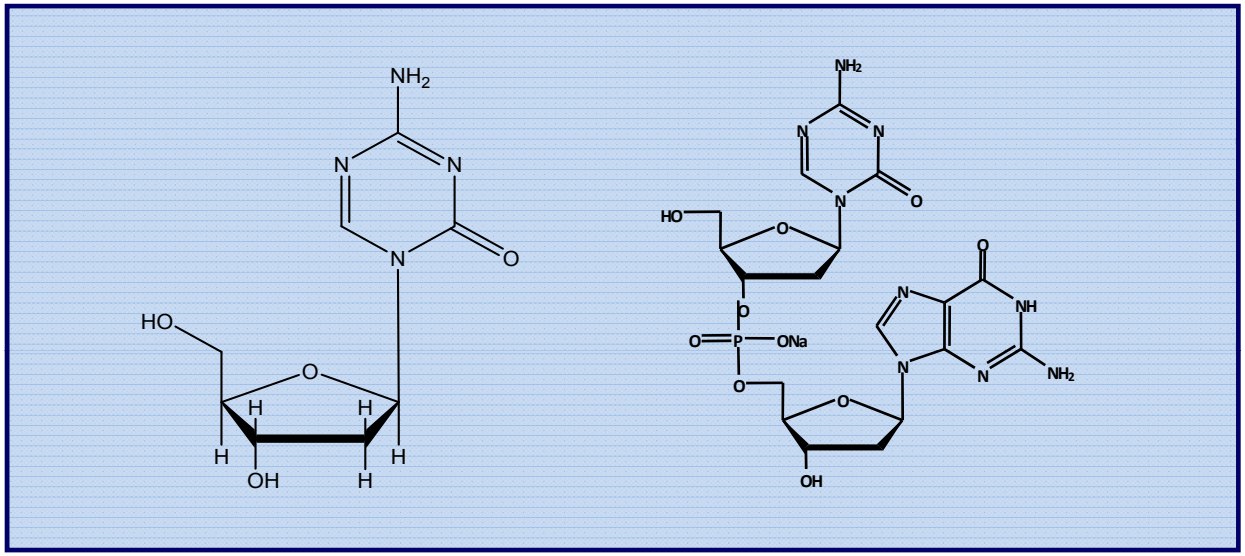
DNA Hypomethylation – MDS, AML, Solid Tumors
JAK2 Inhibitor

S-110: A potent inhibitor of DNA Methylation

A pro-drug of decitabine

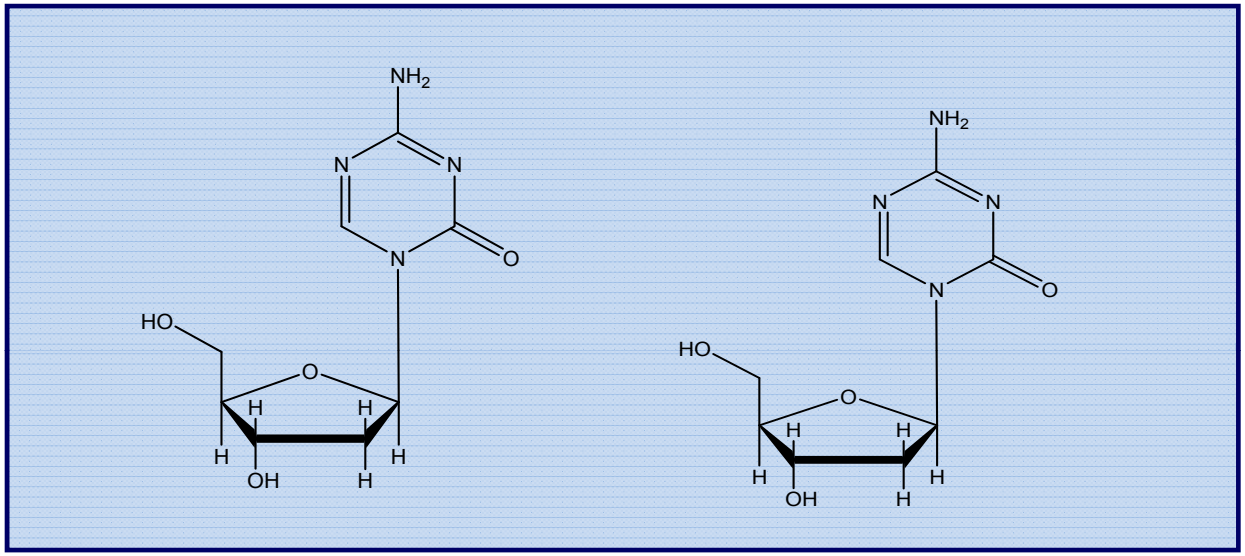


Decitabine **S-110**

- **S-110 and decitabine have similar activities in vitro**
  - De-methylation of LINE and p16 promoter
  - Up-regulation of p16 expression
- **S-110 improves decitabine's pharmacology**
  - Stability and pharmacokinetic properties
  - Exhibits improved activity in animal models

S-110: A potent inhibitor of DNA Methylation

A pro-drug of decitabine

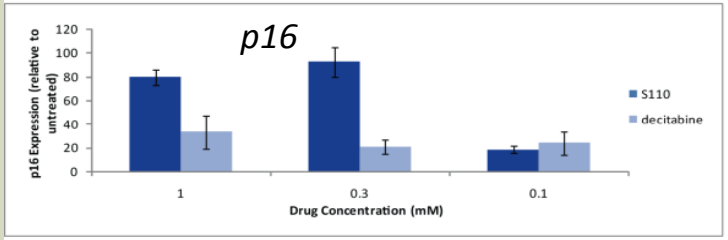


Decitabine **Intracelluar S-110**

- **S-110 and decitabine have similar activities in vitro**
  - De-methylation of LINE and p16 promoter
  - Up-regulation of p16 expression
- **S-110 improves decitabine's pharmacology**
  - Stability and pharmacokinetic properties
  - Exhibits improved activity in animal models

In Vitro

Gene re-expression



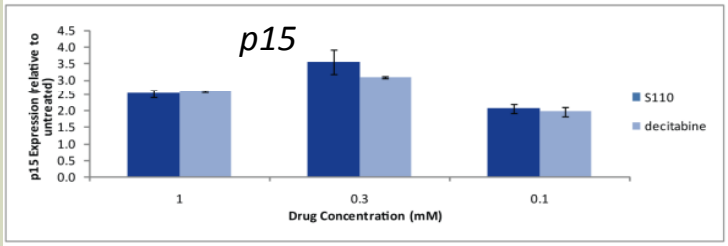


Fig 3: Real-time RT-PCR re-expression of genes commonly methylated in cancer. *p16* above, and *p15* below, with S110 and decitabine.

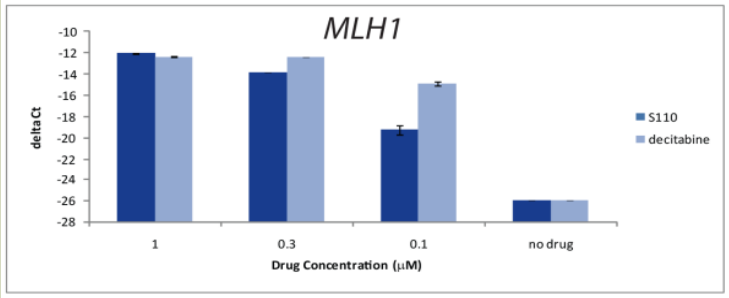
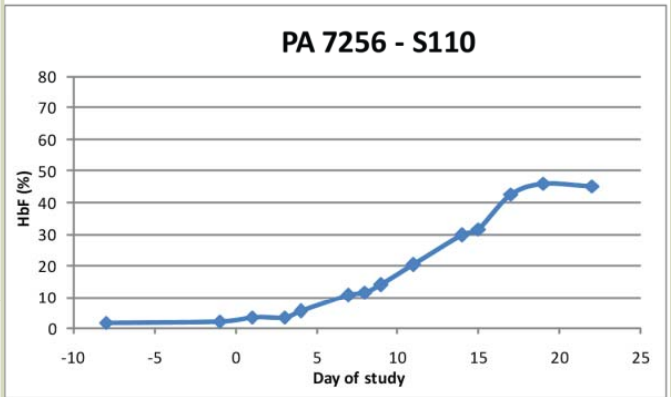


Fig 4: Real-time RT-PCR re-expression of *MLH1* gene, another commonly methylated gene in cancer, with S110 and decitabine. The expression of *MLH1* was not detected in the "no drug" group. Delta Ct is the difference between the cycle threshold of *MLH1* and β-actin.

Effect of S110 on HbF

In Vivo



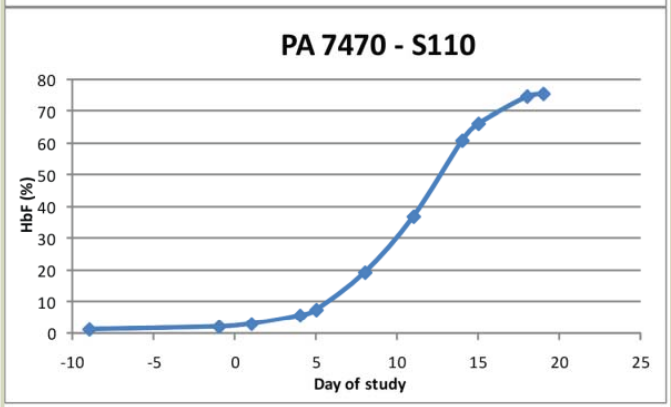
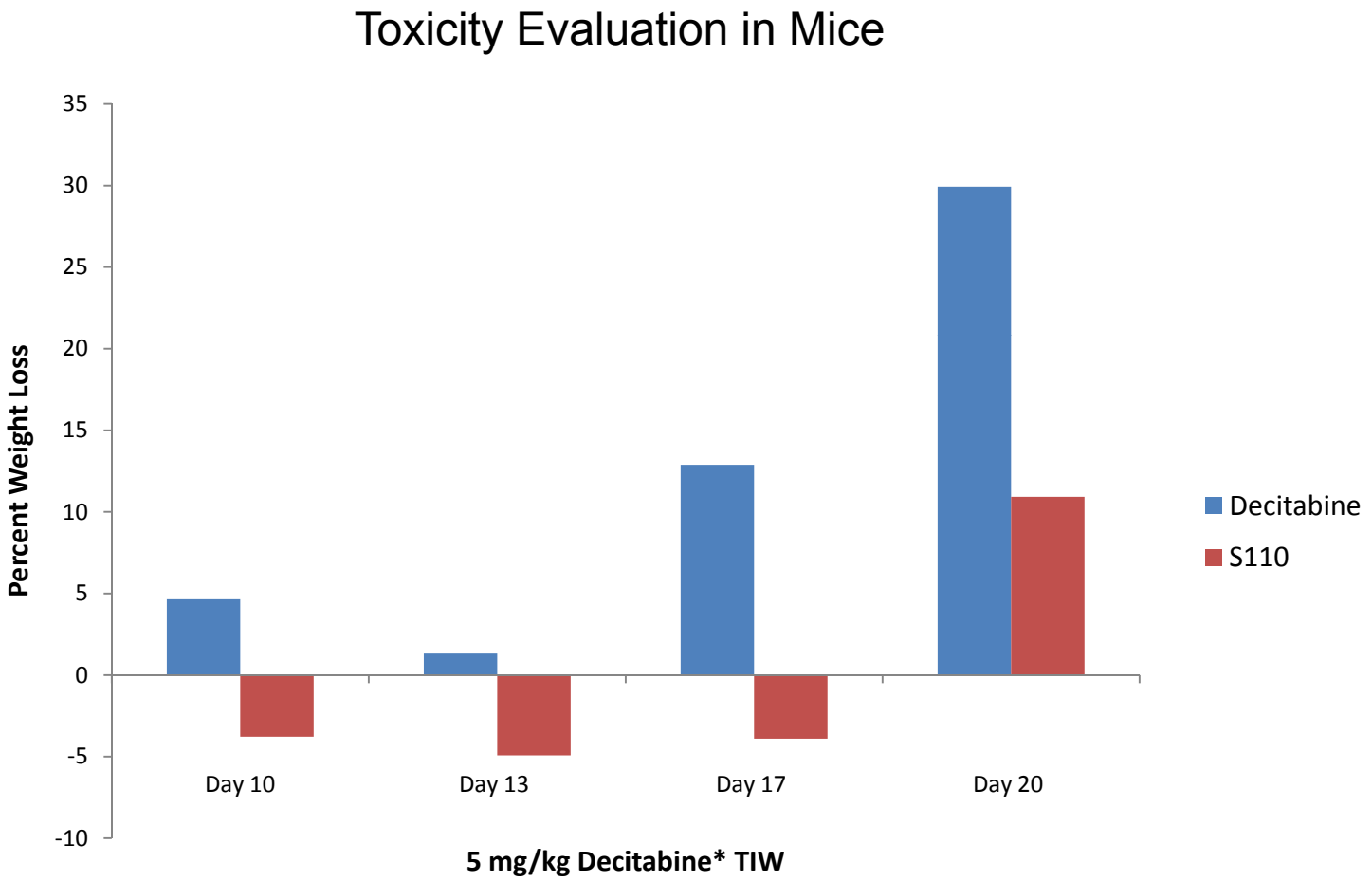


Fig 6: The effect of S110 on fetal hemoglobin (HbF) levels was tested in non-human primates as a biomarker of DNA methylation. These graphs indicate levels of HbF in two different animals over time.

Comparable activity

Extended activity

S-110 Tolerability *In Vivo*

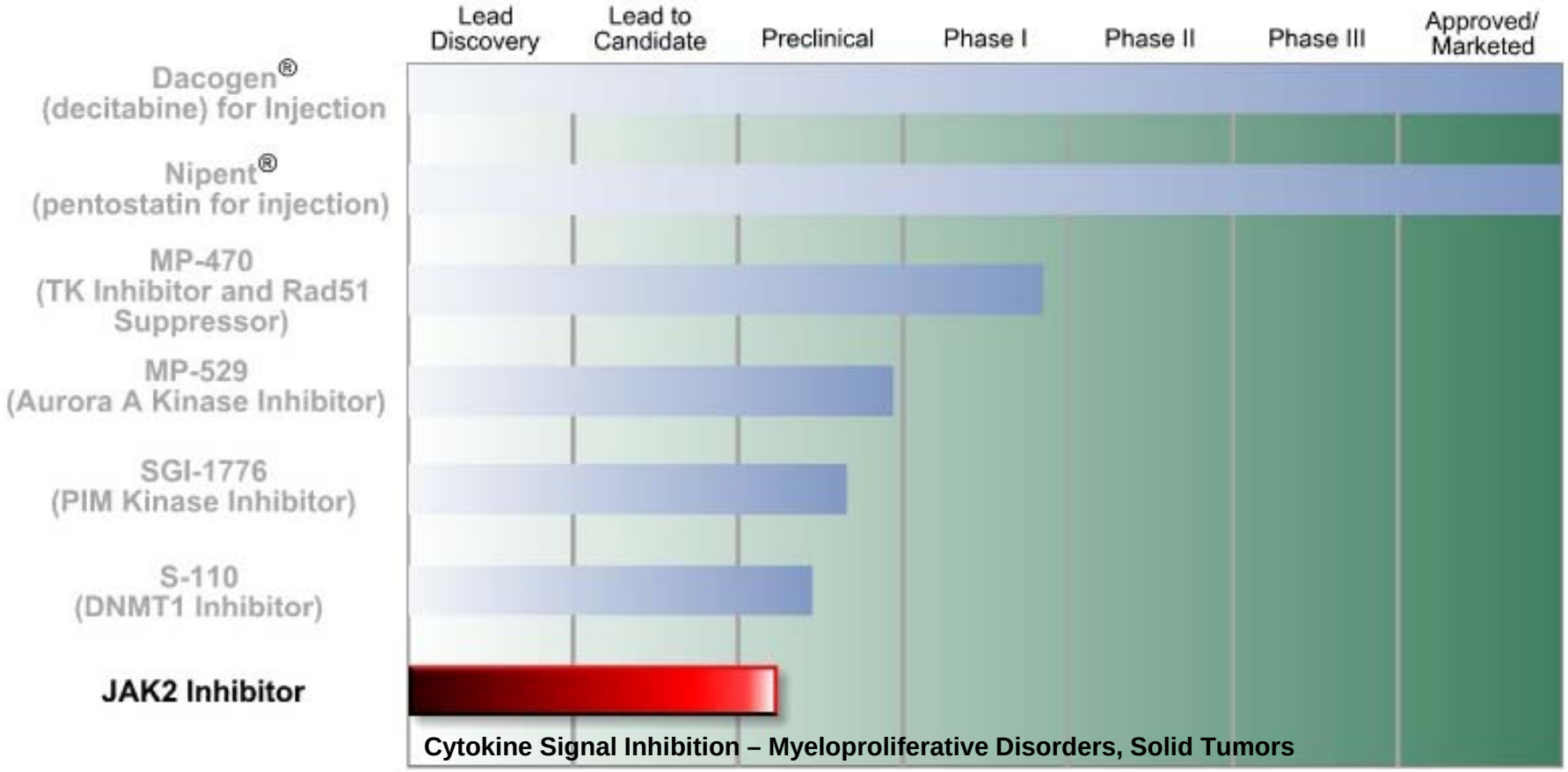


* Concentration value of S-110 given in molar equivalent of Decitabine.

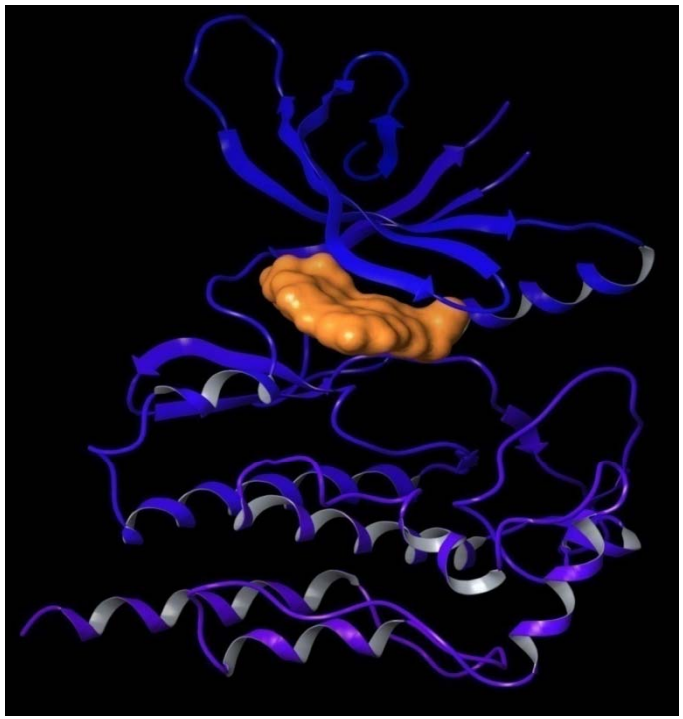
S-110 Clinical Development in MDS

- Phase 1
  - Refractory MDS / AML
- Phase 2 / 3 Clinical - Regulatory Approaches
  - Dacogen or Vidaza failures - Phase 2 open label study
  - Phase 2/3 trial of S-110 vs Dacogen (or Vidaza) in MD

JAK2 Inhibitor



JAK2 Inhibitor

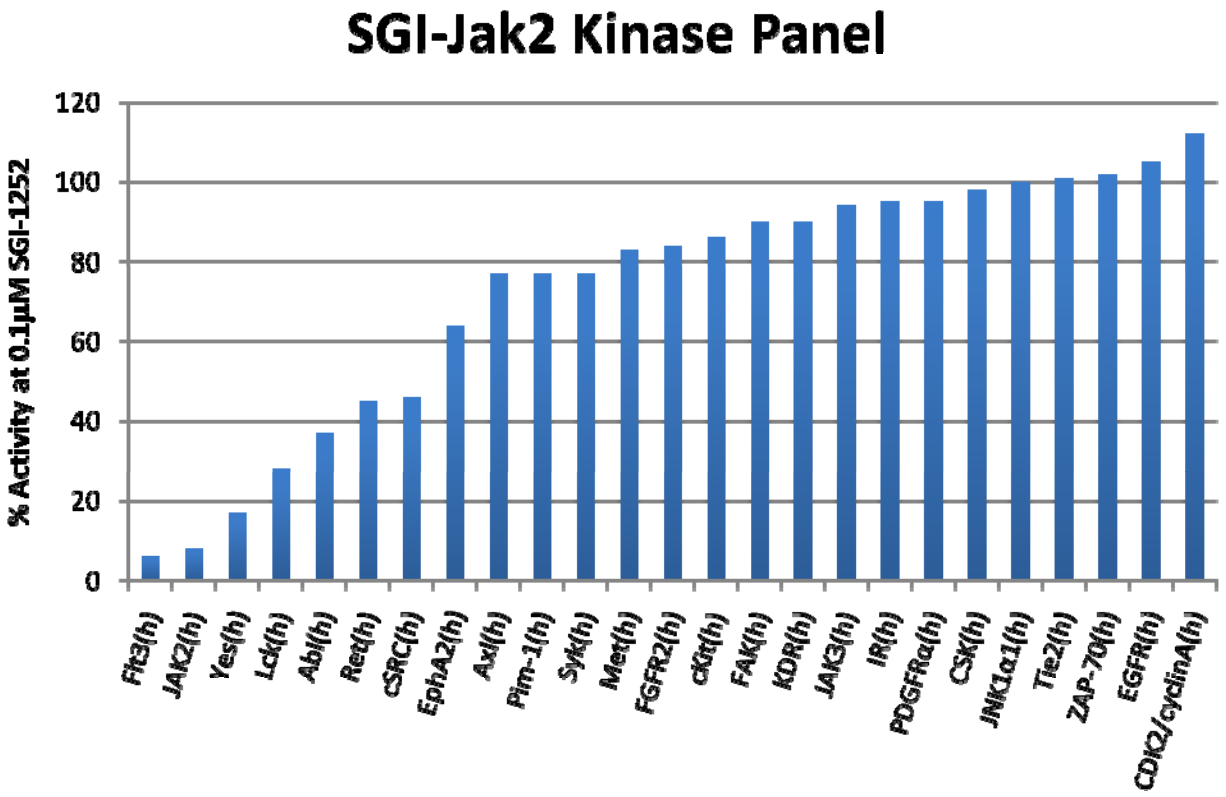


- Inhibits V617F JAK2 mutant kinase
- V617F JAK2 mutant plays a causal role in myeloproliferative disorders
- Potency in low nanomolar concentrations

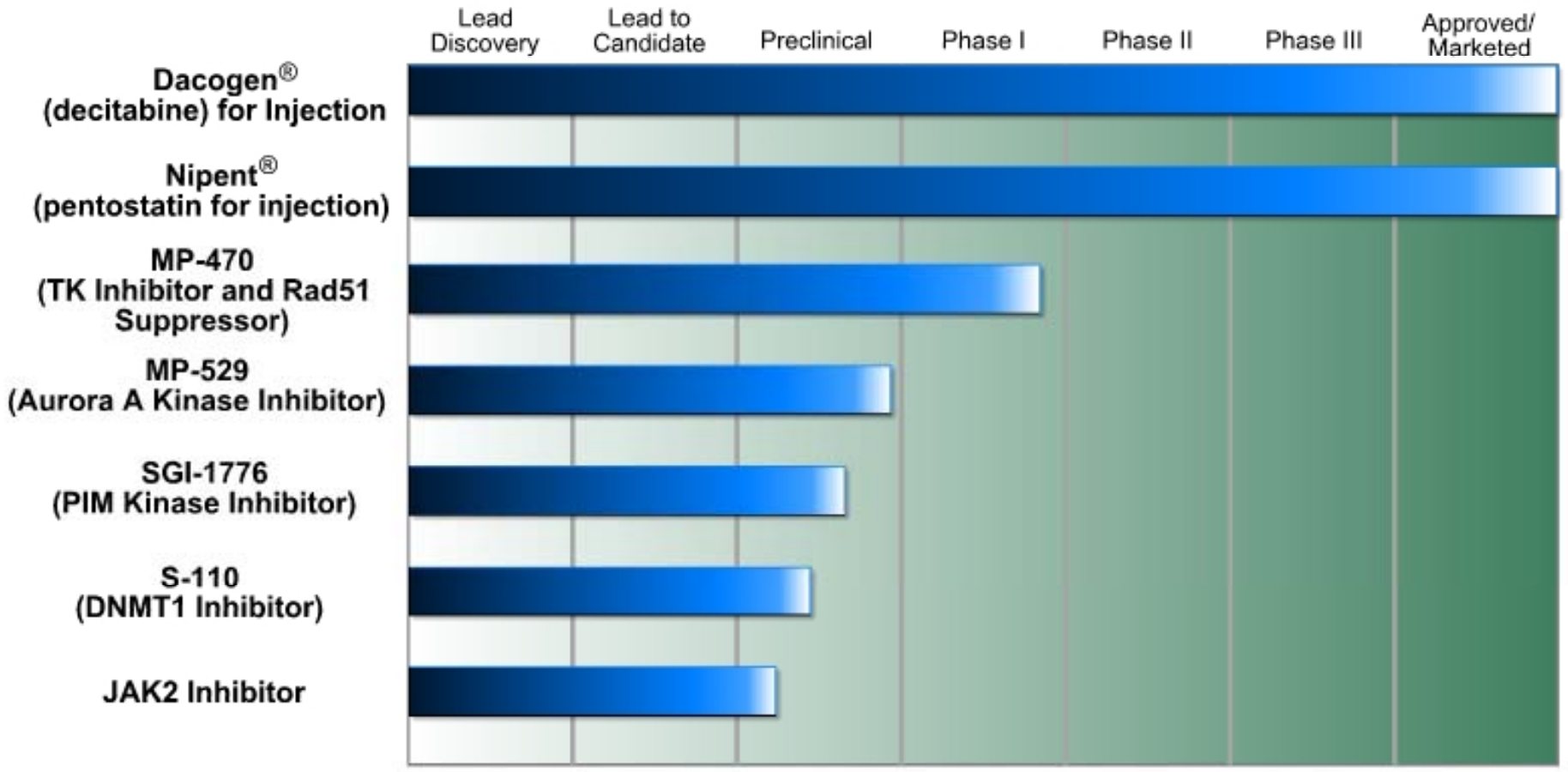
JAK2 Inhibitor

- **Highly selective and very specific, low nM potency**
- **Inhibits V617F JAK2 mutant kinase**
  - **Causative role in myeloproliferative disorders**
- **Orally bioavailable**

SGI-Jak2 IC_{50}	
JAK2	5.4 nM
V617F	19.7 nM
JAK1	14.8 nM
JAK3	1,700.0 nM



Marketed & Pipeline Products



Balance Sheet & Capital Structure
Q1 08 (In thousands)

Balance Sheet	Amount (In $ 000's)
Cash, Cash Equivalents & Marketable Securities (current & non-current)	$90,762
Total Assets	$100,964
Stockholders' Equity	$93,359
Debt	None

Capital Structure	Amount
Common Stock	57,520
Options	7,823
Warrants	1,135
Fully Diluted Shares	66,478

2008 Operating Guidance (In millions)

4/28/08 Financial Conference Call

	From	To
Revenue / gains:		
Royalty revenue	**$ 32.0**	**$ 35.0**
Gain on sale of products	**1.6**	**2.6**
Operating expenses (*):		
R&D	**34.0**	**36.0**
Acquired in-process R&D expense	**5.2**	**5.2**
SG&A	**13.5**	**13.5**
Total operating expenses	**52.7**	**54.7**
Loss from operations	**$ (19.1)**	**$ (17.1)**
*** Includes estimated stock-based compensation expense**	**$ 4.0**	**$ 4.0**
Estimated average shares outstanding	**58.0**	**58.0**

Milestones

Events	Date
EORTC Phase 3 Dacogen Trial Results	June 08 (*)
Submit SGI-1776 (PIM Kinase Inhibitor) IND	2H 08
MP-470 Phase 1b Glioblastoma multiforme	2H 08
MP-470 Phase 2 Initiation	Q4 08
S-110 DNMT-1 Inhibitor Phase 1 Trial	Q4 08 / Q1 09

** Eisai 's FY2007 Earnings Conference Call 5/14/08*

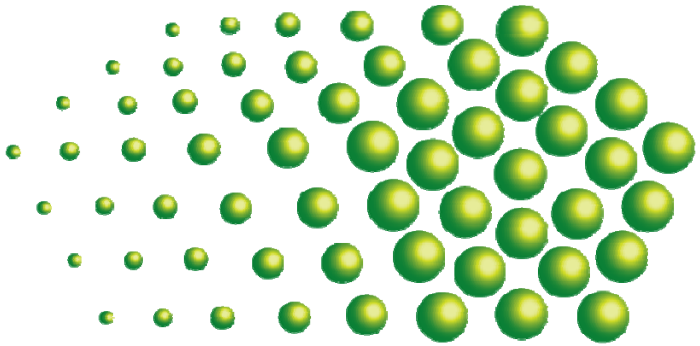
Strategic Focus

- Enhance revenue stream through partnering
- Monetize novel, targeted therapeutics
- Develop one or two novel clinical candidates each year
- Continue investing prudently in our operational infrastructure and drug development programs
- Create sustainable stockholder value

Investment Highlights

- Two Marketed Products Generating Revenue
- Substantial Commercial Partners
- Strong Financial Position
- MP-470 Advancing in the Clinic
- Innovative & Diverse Oncology Pipeline
- Novel Discovery Capabilities

On behalf of the entire team at SuperGen, we thank you for your continued support!



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