



*Bio
Advance*

Biotechnology Greenhouse of Southeastern Pennsylvania

Policy Hearing
July 11, 2012
Marie Lindner, M.D.

BioAdvance Snapshot

\$21.3M

invested since 2003 in

54

companies, developing

60

products, leveraging

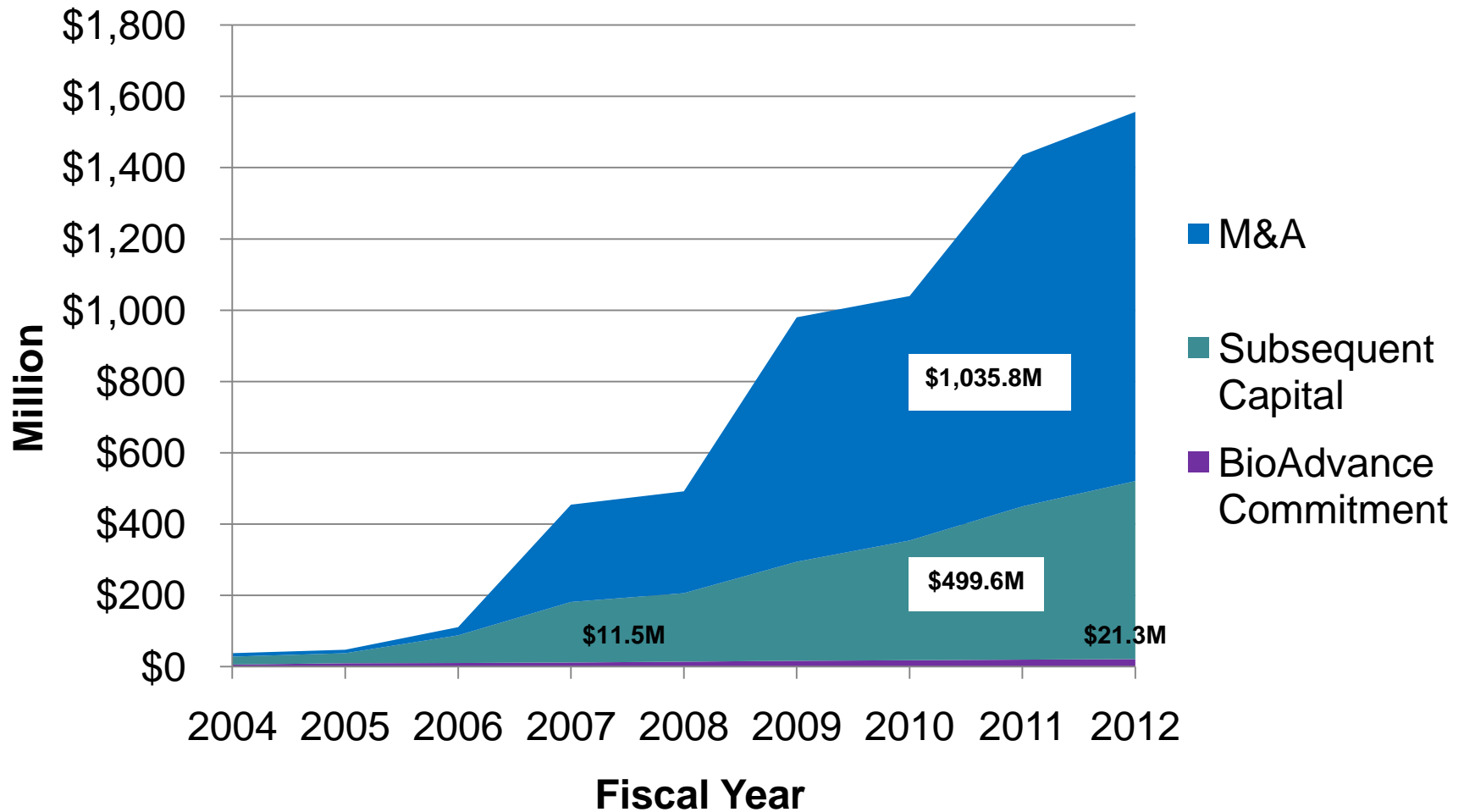
\$1.5B

in additional dollars, for a

1:72

leverage ratio of state dollars
to other capital, with

Leverage of PA dollars 1:72



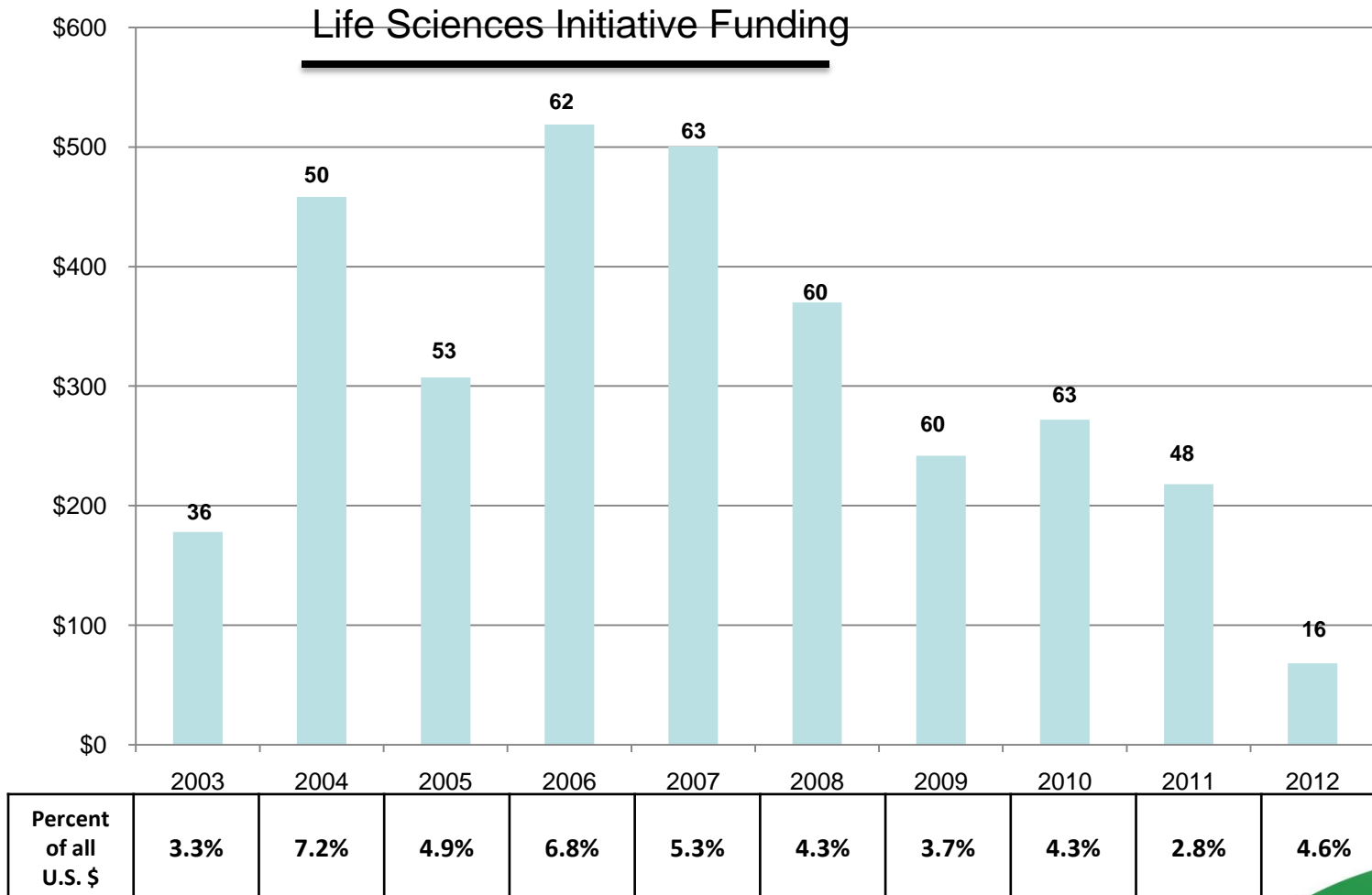
Note: As of June 5, 2012, Excludes NuPathe IPO (\$140 million valuation) and Avid commercial milestones (up to \$500 million)

Exits to Date

Company	Exit	Acquiror	Exit Value (upfront)
Gelifex	2004	Synthes	Confidential
Alteris	2005	Celldex	\$13 million
Sans Rosa	2005	Collagenex	Confidential
LumenVu	2007	SonoSite	Confidential
Acuity	2007	OPKO	\$234 million
Protez	2008	Novartis	\$400 million (\$100 million)
NuPathe	2010	IPO	\$140 million
Avid	2010	Lilly	\$850 million (\$300 million)
Formae	2011	N/A	Repayment of Promissory Note

Life Sciences Venture Capital Trends in PA

Life Sciences Venture Capital in PA (all stages)



Source: PricewaterhouseCoopers MoneyTree™ Report as of 3/31/2012

Series A Life Sciences Financings: Will 2012 Be Better?

	2007	2008	2009	2010	2011	2012 (4 months)
US	175	185	115	101	96	32
TOTAL	\$1.67B	\$1.57B	\$1.02B	\$941.57M	\$859.16M	\$251.83M
PA	6	9	8	2	1	1
NJ	10	7	1	5	2	0
DE	0	0	0	0	0	0
MD	5	2	3	1	2	1
MA	26	30	12	26	21	10
CA	58	61	34	24	25	8
NC	3	3	3	1	2	0

Source: MedTRACK Venture Finance Database (4/30/2012)

Proportion of Life Sciences VC to all Sectors (\$ in millions)

	2012 (3 months)		2011		2010		2009	
US								
All VC	\$5,751		\$29,119		\$23,363		\$19,668	
Biotech VC	\$780	(13.5%)	\$ 4,871	(16.7%)	\$ 3,841	(16.4%)	\$ 3,714	(18.9%)
Med Device VC	\$686	(11.9%)	\$ 2,840	(9.7%)	\$ 2,372	(10.2%)	\$ 2,595	(13.2%)
PA								
All VC	\$175		\$ 520		\$ 543		\$ 433	
Biotech VC	\$48	(27.4%)	\$ 116*	(22.3%)	\$ 180	(33.1%)	\$ 147	(33.9%)
Med Device VC	\$19	(10.9%)	\$ 101*	(19.4%)	\$ 83	(15.3%)	\$ 84	(19.3%)

Source: PricewaterhouseCoopers MoneyTree™ Report as of 3/31/2012

* OnBioVC shows \$144M in 2011 life sciences venture capital in PA;
MedTRAK shows \$227M; difficult to reconcile databases



Fund Raising Flat vs 2011

Decline in Fundraising by US Venture Funds (all sectors)

Year	Number of Funds	Venture Capital (\$M)
2005	243	29,042.7
2006	243	32,094.9
2007	233	36,206.4
2008	212	25,340.1
2009	160	16,400.7
2010	170	13,778.9
2011	181	18,767.6
2012 (3 months)	42	4,876.9

Source: Thomson Reuters and National Venture Association

Total Greenhouse Data



1:33 LEVERAGE of state dollars;

\$63.2M invested in

181 companies, which has LEVERAGED

\$2.1B in additional dollars

LSG FUNDED. FDA APPROVED.

AdaptDx™	Intrascanner
Amyvid™	LumenVu Catheter Guidance System
BoneVue™	SmartSponge System™
DialSorb™	SleepWeaver _®
EMMA™	QSP-7™
M29™ Midterm Catheter System	VERATHERM™
Matched Flicker	

HIGH DEMAND FOR LSG INVESTMENT

Number of Requests Received for Funding **1555**

Amount Requested **\$724.7M**

Percentage of Requests Funded **17%**

LSGS CREATE HIGH-QUALITY PA JOBS

LSGs created more than **3200 jobs** in Pennsylvania.

Average LS salary **\$90,267** – 2X average Pennsylvania private sector wage of about \$45,348.

For every one LS job created, **5.8 additional state jobs** are impacted.



Focus on Companies

- **Avid Radiopharmaceuticals**
 - ♦ Acquired by Lilly in late 2010 for \$800M (\$300M upfront)
 - ♦ Remaining in Philadelphia at UCSC
 - ♦ Product approved by FDA April 2012 (Avymid®)
 - ♦ 76 current employees
 - ♦ 23 jobs posted on website
- **NuPathe Pharmaceuticals**
 - ♦ IPO August 2010
 - ♦ Awaiting FDA approval on Zelrix®
 - ♦ 30 employees
- **Ceptaris**
 - ♦ NDA pending
 - ♦ 18 employees
- **Galleon**
 - ♦ Early clinical stage
 - ♦ 18 employees

Funding Greenhouses Goes a Long Way

- **BioAdvance and other Greenhouses**
 - ◆ **Contracts completed with PA**
 - ◆ **Bring other funding but can only do that if funding is encouraged, supported and available in PA**
 - ◆ **Besides seed funding, series A funding is now dried up in state**
 - ◆ **Jobs are draining out of state and these jobs leverage other jobs significantly**
 - ◆ **Support of series A funding, accelerators, incubators and Greenhouses will help retain biotechnology**
 - ◆ **Cooperative initiatives in PA with other funders, remaining pharmaceutical companies, academics and support organizations need to continue to grow**
 - ◆ **Cooperation with state will help**