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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 25, 2014

**ACTINIUM PHARMACEUTICALS, INC.**  
(Exact name of registrant as specified in its charter)

<b>Delaware</b> (State or other jurisdiction of incorporation)	<b>000-52446</b> (Commission File Number)	<b>88-0378336</b> (IRS Employer Identification No.)
<b>501 Fifth Avenue, 3rd Floor</b> <b>New York, NY</b> (Address of principal executive offices)	<b>10017</b> (Zip Code)	

Registrant's telephone number, including area code: **(646) 459-4201**

N/A

(Former name or former address, if changed since last report)

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 (see General Instruction A.2. below):

- 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.**

On September 26, 2014, Actinium Pharmaceuticals, Inc. (the "Company") will be presenting a corporate presentation at the 21<sup>st</sup> Annual NewsMakers In The Biotech Industry, a BioCentury conference, held in New York City. A copy of the Company's presentation is attached as Exhibit 99.1 to this Current Report on Form 8-K and is incorporated into this Item 7.01 by reference. In accordance with General Instruction B.2 of Form 8-K, the information set forth herein is deemed to be "furnished" and shall not be deemed to be "filed" for purposes of the Securities Exchange Act of 1934, as amended. The information set forth in Item 7.01 of this Current Report on Form 8-K shall not be deemed an admission as to the materiality of any information in this Current Report on Form 8-K that is required to be disclosed solely to satisfy the requirements of Regulation FD.

**Item 9.01. Financial Statements and Exhibits.**

(d) Exhibits.

Exhibit

Exhibit No.	Description
99.1	Actinium Pharmaceuticals, Inc., Corporate Presentation.

**SIGNATURES**

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.

Dated: September 25, 2014

**ACTINIUM PHARMACEUTICALS, INC.**

By: /s/ Kaushik J. Dave

Name: Kaushik J. Dave

Title: President and Chief Executive Officer



## Actinium Pharmaceuticals, Inc.



September/October 2014  
Company Presentation  
Trading Symbol: ATNM

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# Disclaimer and Safe Harbor Statement

## **Disclaimer**

The contents of this presentation and the information which you are given at the time of these slides and the presentation have not been approved by an authorized person within the meaning of the Financial Services and Markets Act 2000 (the "Act"). Reliance on this presentation and its slides for the purpose of engaging in investment activity may expose an individual to a significant risk of losing all of the property or other assets invested. This presentation does not constitute or form part of any offer for sale or subscription or solicitation of any offer to buy or subscribe for any securities in Actinium Pharmaceuticals, Inc. ("ATNM" or the "Company") nor shall it or any part of it form the basis of or be relied on in connection with any contract or commitment whatsoever. No reliance may be placed for any purpose whatsoever on the information contained in these slides or presentation and/or opinions therein. These slides and the presentation are exempt from the general restriction (in section 21 of the Act) on the communication of invitations or inducements to engage in investment activity on the grounds that it is made to: (a) persons who have professional experience in matters relating to investments who fall within Article 19(1) of the Financial Services and Markets Act 2000 (Financial Promotion) Order 2005 (the "Order"); or (b) high net worth entities and other persons to whom it may otherwise lawfully be communicated, falling within Article 49(1) of the Order (all such persons together being referred to as "relevant persons"). Any person who is not a relevant person should not rely on this presentation or any of its contents and all persons (whether relevant persons or otherwise) are recommended to seek their own independent financial advice from a person authorized for the purposes of the Act before engaging in any investment activity involving the Company's securities.

## **Safe Harbor Statement**

This presentation contains "forward-looking statements" within the meaning of the "safe-harbor" provisions of the private securities litigation reform act of 1995. Such forward-looking information and statements are based on the current estimates and projections of the Company or assumptions based on information currently available to the Company. Such statements involve known and unknown risks, uncertainties and other factors that could cause the actual results of the Company to differ materially from the results expressed or implied by such statements, including changes from anticipated levels of revenues, future national or regional economic and competitive conditions, difficulties in developing the Company's technology platforms, retaining and expanding the Company's customer base, fluctuations in consumer spending on the Company's products and other factors. Accordingly, although the Company believes that the expectations reflected in such forward-looking statements are reasonable, there can be no assurance that such expectations will prove to be correct. The Company has no obligation to update the forward-looking information contained in this presentation. Any forward-looking statements or information in this presentation speak only as at the date of this presentation.



Actinium Pharmaceuticals

## Company Description

*A public biotechnology company using world class science to develop and commercialize antibody directed radioisotopes to target unmet medical needs in cancer.*



## Company Overview

- ✓ Prior clinical data for Iomab-B and Actimab-A support pivotal/phase II development respectively
- ✓ Potential as breakthrough therapy, significant unmet medical need and strong KOL support imply successful market penetration for both Iomab-B and Actimab-A
- ✓ APIT platform poised to deliver multiple cancer drugs with blockbuster potential
- ✓ Expert team possessing the vision and desire to enhance shareholder value
- ✓ Positioned to benefit from increased market recognition of targeted payload therapies and an initial high-value, niche product model

# Core Team & Advisors

## Team

**Sandesh Seth, MS, MBA**  
Executive Chairman

**Kaushik J. Dave, PhD, MBA**  
President and CEO

**Dragan Cicic, MD, MBA**  
Chief Medical Officer

**Richard Steinhart BBA, MBA**  
Director

**Sergio Traversa, PharmD, MBA**  
Director

**David Nicholson, PhD**  
Director

## Background

- ◆ 20+ years experience in investment banking (Cowen & Co.), equity research (Bear Stearns, Commonwealth Associates) and in industry (Pfizer, Warner-Lambert, SmithKline)
- ◆ Head of Healthcare Investment Banking at Laidlaw & Company (UK) Ltd.
- ◆ Lead Director, Relmada Therapeutics
- ◆ MS, Pharmaceutical Sciences at University of Oklahoma Health Center; MBA, Finance at New York University

- ◆ 25 years of Pharma and Biotech industry experience at both Big Pharma and small startups
- ◆ Former EVP at Antares Pharma, VP at Palatin Technologies, and Big Pharma (Schering-Plough and Merck)
- ◆ BPharm from University of Bath (UK), PhD from University of Kansas, MBA from Wharton School at The University of Pennsylvania

- ◆ 9 years at Actinium Pharmaceuticals
- ◆ Former strategic consultant at QED Technologies and an investment banker at SG Cowen Securities
- ◆ MD, School of Medicine at The Belgrade University; MBA, Wharton School at The University of Pennsylvania
- ◆ Nieman Fellow at Harvard University

- ◆ Industry Consultant
- ◆ Former Senior Vice President, Finance and Chief Financial Officer of MELA Sciences Inc.
- ◆ Former Managing Director of Forest Street Capital/SAE Ventures, a boutique investment banking, venture capital, and management consulting firm focused on healthcare and technology companies.
- ◆ BBA and MBA, Pace University

- ◆ CEO of Relmada Therapeutics, Inc.
- ◆ 25+ years of management and investment experience in healthcare as a Portfolio Manager & Sr. Pharmaceutical Analyst (Mehta & Isaly, ING Barings, Merlin BioMed & Rx Capital) and in industry (CNS at Eli Lilly, Pfizer)
- ◆ MBA, Finance at New York University, Laurea of Pharmacy at the University of Turin

- ◆ Head of Global Brands R&D, Actavis
- ◆ Former Head of R&D, Bayer CropScience
- ◆ Former Sr. VP and Head Worldwide Licensing and Knowledge Management at Merck
- ◆ Former Head of R&D at Organon prior to acquisition by Schering-Plough
- ◆ Ph.D., Pharmacology, University of Wales



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# Advisory Boards

Bone Marrow Transplant; Iomab-B ( $\beta$ )		Hematology; Actimab-A ( $\alpha$ )	
Affiliation	Member	Affiliation	Member
Fred Hutchinson Cancer Research Center	<b>John Pagel, MD, PhD</b> Associate Member Clinical Research Division; Associate Professor, Medical Oncology Head, Hematologic Malignancies at Swedish C.I. <i>Chair; Lead Investigator for Iomab-B trials</i>	Columbia University Medical Center	<b>Joseph Jurcic, MD</b> Director of Hematologic Malignancies; Professor of Clinical Medicine <i>Chair; Lead Investigator for Actimab-A trials</i>
Memorial Sloan Kettering Cancer Center	<b>Sergio Giralt, MD</b> Chief of Adult Bone Marrow Transplant Service; Professor of Medicine, Weill Cornell	Memorial Sloan Kettering Cancer Center	<b>David Scheinberg, MD, PhD</b> Chair of Experimental Therapeutics Center; Chair of Molecular Pharmacology & Chemistry Program <i>Scientific Co-Founder</i>
MD Anderson Cancer Center	<b>Richard Champlin, MD</b> Chair and Professor, Department of Stem Cell Transplantation and Cellular Therapy; Associate Division Head, Department of Cancer Medicine	MD Anderson Cancer Center	<b>Hagop Kantarjian, MD</b> Department Chair, Research Chair and Professor, Department of Leukemia, Division of Cancer Medicine
Case Western Reserve University	<b>Hillard Lazarus, MD</b> Director of Novel Cell Therapy and Professor of Medicine, CWRU School of Medicine	Johns Hopkins Medicine	<b>Richard Wahl, MD</b> Director, Division of Nuclear Medicine/PET; Professor of Radiology and Nuclear Medicine
Baylor Sammons Cancer Center	<b>M. Yair Levy, MD</b> Medical Director, Hematologic Malignancy Clinical Research	Fred Hutchinson Cancer Research Center	<b>Elihu Estey, MD</b> Professor, Division of Hematology University of Washington <i>WHO AML Treatment guidelines</i>
University of Colorado	<b>Peter McSweeney, MD</b> Clinical Associate Professor of Medicine	University of Pennsylvania Health System	<b>John Pagel, MD, PhD</b> <b>Alexander Perl, MD</b> Assistant Professor, Division of Hematology/Oncology



# Antibody Approaches Targeting Cancer Cells

## Cancer Treatment Options

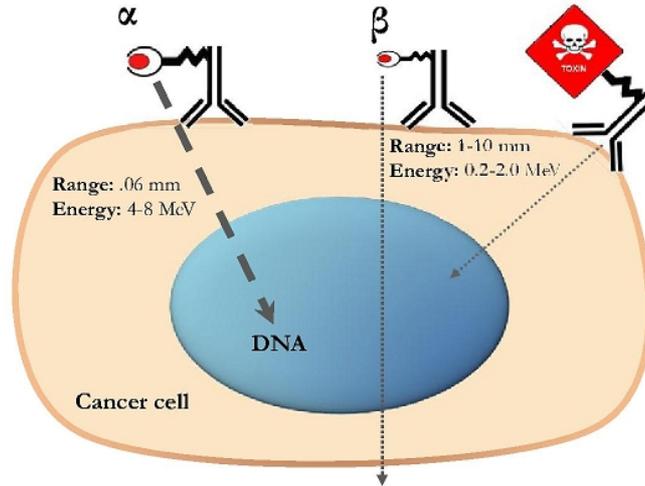
Opportunity	Radiation	Monoclonal Antibodies (mAbs)
<b>Treatment %</b>	50% ♦ External radiation majority treatment ♦ Internal radiation has mostly no IP	<10% ♦ Always a pharmaceutical ♦ Strong IP protection
<b>Pharmaceutical Revenue %</b>	<3% ♦ Commoditized	~30% ♦ Mostly proprietary

## Payload Approaches

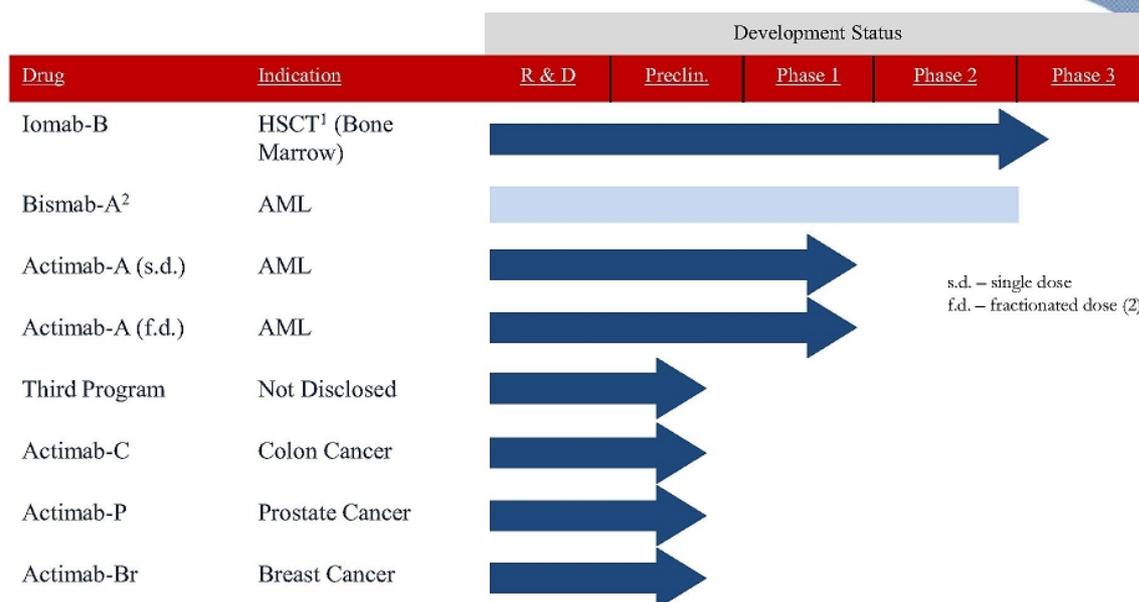
	Company
$\alpha$	<b><math>\alpha</math> - emitters</b>
	Actinium Pharmaceuticals Algeta - Acquired by Bayer
$\beta$	<b><math>\beta</math> - emitters</b>
	GSK Spectrum Pharmaceuticals Immunomedics Novelos Therapeutics Peregrine Pharmaceuticals
	<b>Toxins</b>
	Pfizer Seattle Genetics Immunogen Peregrine Pharmaceuticals Progenics



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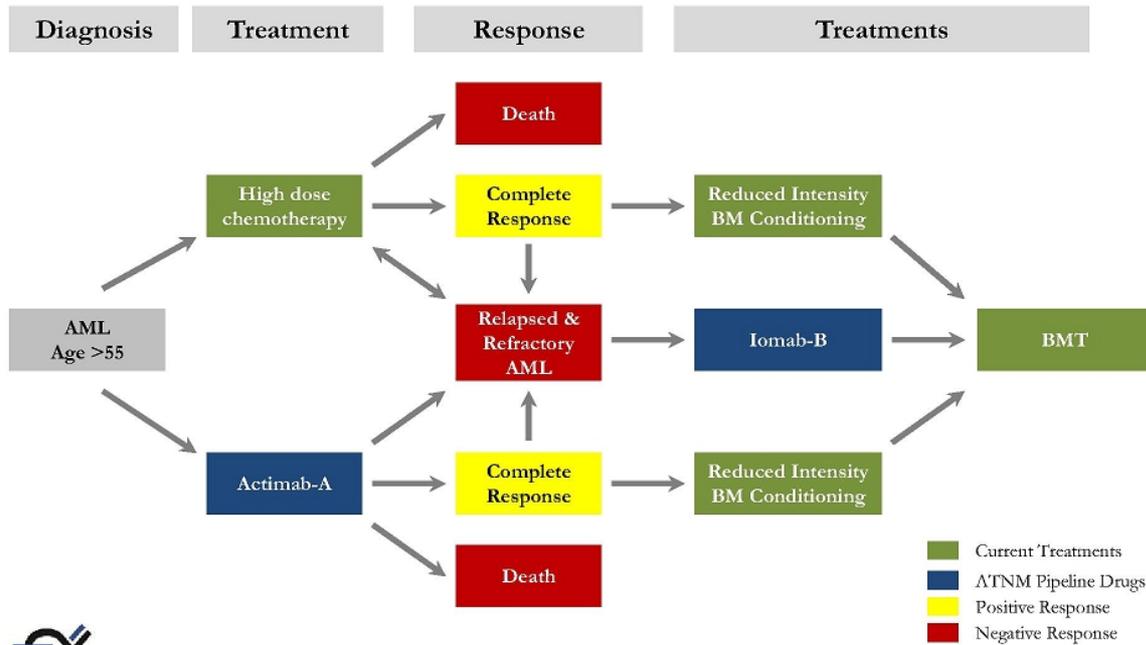
# ATNM's Product Pipeline



1 HSCT<sup>1</sup> stands for Hematopoietic Stem Cell Transplantation, a procedure in which cells capable of reconstituting normal bone marrow function are transplanted to a patient.  
2 ATNM has decided to discontinue development of Bismab-A at this time due to supply, logistics and cost reasons. Actimab-A is the second generation drug of Bismab-A.

# Market Positioning for Iomab-B, Actimab-A

*ATNM products target both treatment stages for AML patients over 55 years of age*



## Iomab-B Overview

- ◆ Breakthrough therapy potential for BMT conditioning especially for elderly, very sick patients with few curative treatment options
  - Initial intended indication is relapsed, refractory AML patients over 55 years old
- ◆ Compelling clinical data from proof of concept trial in elderly refractory and relapsed Acute Myeloid Leukemia
  - Large safety database: experience with 250+ patients in 5 Phase I and II clinical trials
  - Antibody in-licensed from Fred Hutchinson Cancer Research Center
  - 7 ongoing physician trials with BC8 mAb, the antibody used in Iomab-B, for other indications
- ◆ Safety and efficacy data to date indicate that Iomab-B can potentially disrupt the field of BMT
- ◆ Trials results and implied medical benefits have attracted significant interest and involvement from leading physicians

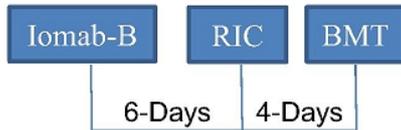
# Iomab-B Treatment

*Potentially faster pathway to a bone marrow transplant with fewer side effects*

## Current BMT Conditioning Approach



## Iomab-B Regimen

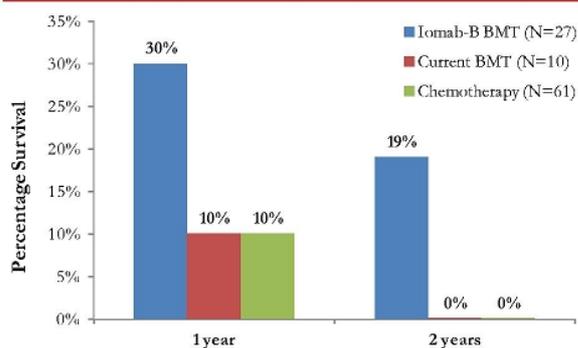


# Iomab-B Phase I/II Results

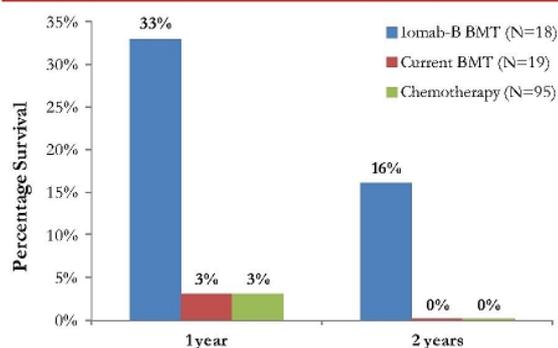
*Compelling clinical results enable pivotal Phase III trial*

- ◆ Non-relapse mortality (NRM):
  - Day 100: 10%
  - Overall: 20% (NRM = 46% in comparable patients with myeloablative conditioning)
- ◆ Transplant related mortality: 14% (same as reduced intensity conditioning)
- ◆ Complete response rate: 100%
- ◆ Engraftment by day 28: 100%

**All relapsed/refractory AML patients over 50**



**Rel/ref AML patients over 50 w/ poor cytogenetics**



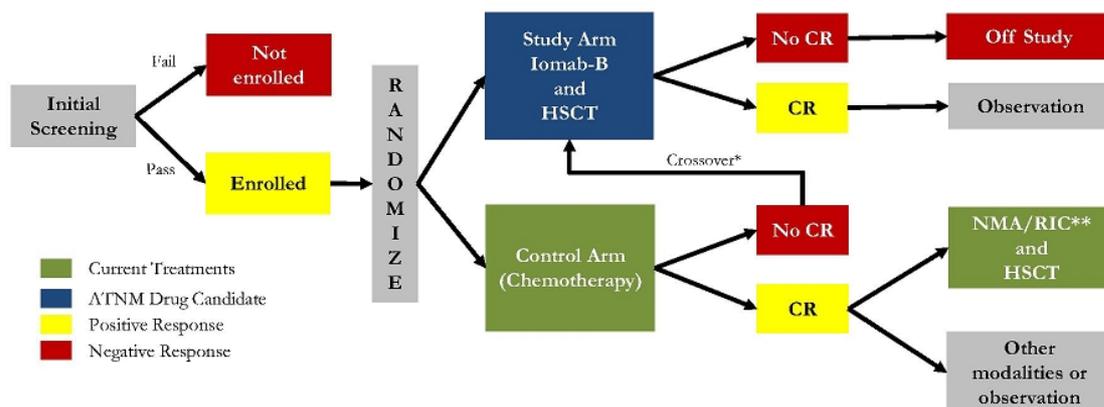
N = Number of patients treated  
 Iomab-B results from FHCRC clinical trials; Current BMT and Chemotherapy results from MD Anderson outcomes analysis  
 Sources: Blood 2009 114:5444-5453; unpublished FHCRC data



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# Iomab-B Pivotal Phase III Trial Design

- ♦ A successful End of Phase II meeting was held with the FDA and agreements were reached on the following Phase III Trial Design:
  - Initial indication: bone marrow conditioning in relapsed and refractory AML
  - Patients age: 55+
  - Study size: 150 subjects; 75 per study arm
  - Primary endpoint: complete response (CR) lasting six months
  - Secondary endpoint: overall survival (OS) at one year



\*Control arm subjects with no CR are offered crossover to Iomab-B for ethical reasons.

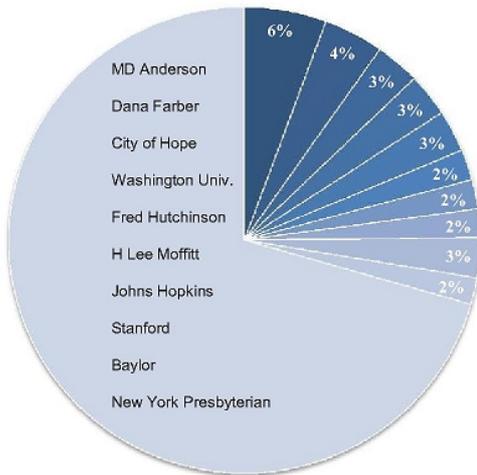
\*\*Nonmyeloablative Conditioning/Reduced Intensity Conditioning

# Bone Marrow Transplant Centers

*Ten centers perform thirty percent of AML transplants;  
HSCT fastest growing hospital procedure*

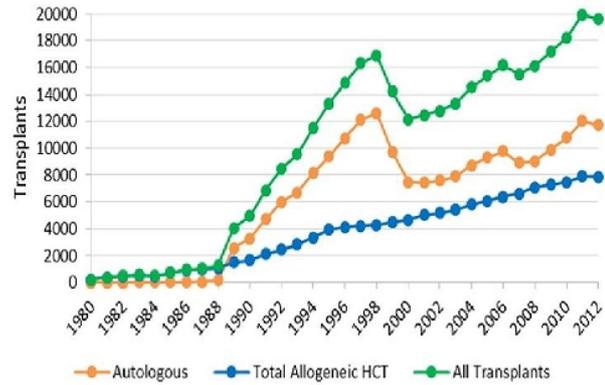
## Transplant Center Procedure Distribution

A total of 2,748 AML patients received allogeneic transplants in 2012



## Transplant Activity in the US

AML transplant growth rate highest in patients > 55 (10.3% vs. 4.2%)



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Sources: Healthcare Cost and Utilization Project, AHRQ; US Dept. of HHS; CIBMTR (Preliminary review of information submitted to the CIBMTR)

# Iomab-B Development Plan

*Currently no approved treatments for Iomab-B targeted patients implies blockbuster potential*

Indication*	2014	2015	2016	2017	2018	2019	2020	2021	2022	WW Mkt. potential
Acute Myeloid Leukemia		III		Approval	Sales start					\$ 793
Myelodysplastic Syndrome	II			III			Approval	Sales start		\$ 288
Acute Lymphoblastic Leukemia	II			III			Approval	Sales start		\$ 240
Non-Hodgkins Lymphoma and Hodgkins disease	I	II		III			Approval	Sales start		\$ 1,455
Multiple Myeloma	I	II		III			Approval	Sales start		\$ 1,322
									Total	\$ 4,098



Phase I and Phase II represent physician trials at Fred Hutchison Cancer Research Center. Phase III trials represent ATNM sponsorship. Non-AML timelines are projections and the Company makes no representation as to their ability to meet these timelines. Sources: "Current Uses and Outcomes of Hematopoietic Stem Cell Transplantation 2010", CIMBTR Summary Slides; "Trade, foreign policy, diplomacy and health: Pharmaceutical Industry", WHO website, <http://www.who.int/trade/glossary/story073/en/>; "Hematopoietic stem cell transplantation A Global Perspective", NIH Public Access, JAMA 2010; Company Estimates

## Iomab-B A New Treatment Paradigm

- ✓ Provides treatment alternative to patients with no options
- ✓ Significantly expands patient population eligible for BMT
- ✓ Provides potentially a faster way of performing BMT with fewer side effects
- ✓ Minimizes transplant related mortality
- ✓ Significantly increases curative outcomes

# Bismab-A → Actimab-A

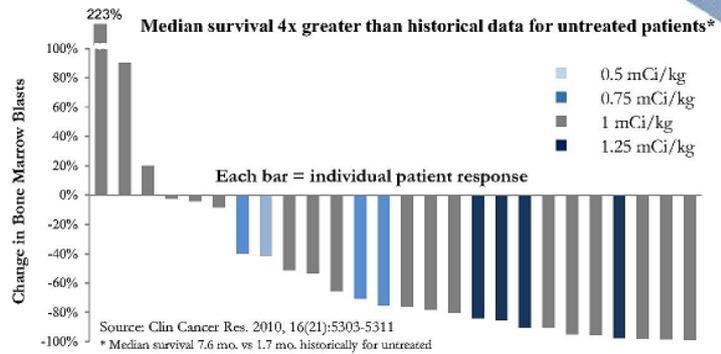
*Second generation Actimab-A 500x more potent than Bismab-A*

	1 <sup>st</sup> Generation Bismab-A Profile	APIT Platform	2 <sup>nd</sup> Generation Actimab-A Advantages
<b>Target:</b>	◆ AML		◆ AML
<b>Effectiveness:</b>	◆ Proof of concept in humans		+ 500x more potent than Bismab-A
<b>Clinical Stage:</b>	◆ Promising results in Phase II		◆ Currently in a Phase I/II Trial
<b>Supply Chain:</b>	◆ Complex, high COGS		+ Simple, 10x lower COGS
<b>Ease of Use:</b>	◆ Complex on site preparation ◆ Does not require additional diagnostics		+ Central manufacturing ◆ Does not require additional diagnostics

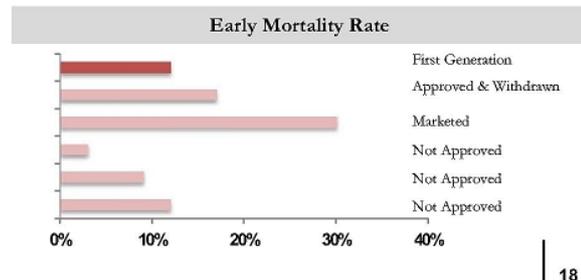
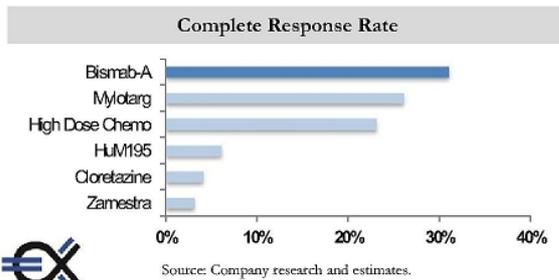
# Bismab-A's Proof of Concept

*Bismab-A experience implies potentially lower risk Actimab-A trial*

- ◆ High-risk AML patients; newly diagnosed and relapsed/refractory
- ◆ Complete Response represents eradication of leukemia cells after treatment



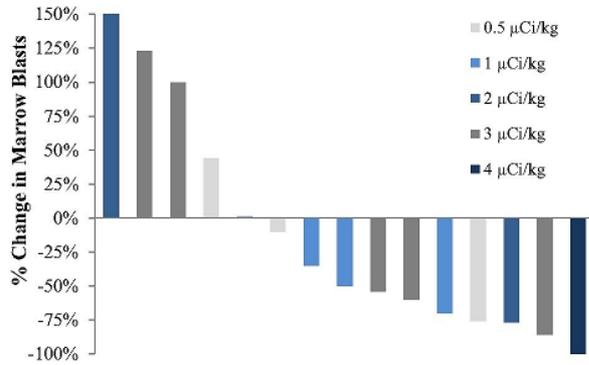
## *Bismab-A Compares Favorably on Efficacy and Mortality*



# Phase I Trial of Actimab-A

## Pharmacologic effects in line with Bismab-A

- ◆ First-in-man, dose-escalating study at Memorial Sloan Kettering Cancer Center
- ◆ No significant toxicities; bone marrow myelosuppression as expected
- ◆ 53% (8/15) had blast reductions of  $\geq 50\%$
- ◆ Actimab-A had anti-leukemic activity across all dose levels



Source: Juric IG et al. *Blood* (ASH Meeting Abstracts) 2012; 118:768.

## Actimab-A shows superior efficacy to Bismab-A in a comparable trial

Parameter	Bismab-A	Actimab-A
Elimination of peripheral blasts	27%	67%
Bone Marrow blasts decrease by 50% or more	28%	53%
Bone Marrow blasts 5% or less post treatment*	0%	20%

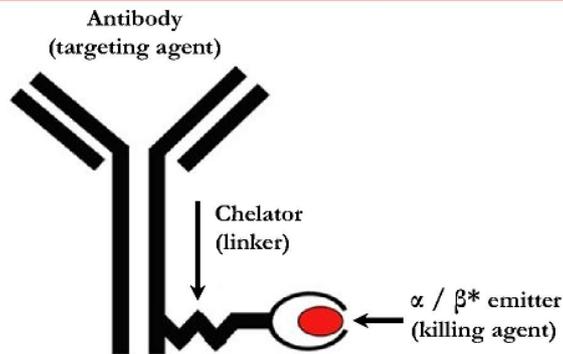
## Actimab-A Clinical Trial Update

- ◆ Phase I/II clinical trial ongoing at world-class treatment centers
  - Memorial Sloan Kettering Cancer Center, Johns Hopkins Medicine, Fred Hutchinson Cancer Research Center, University of Pennsylvania Health Center, MD Anderson Cancer Center, Baylor Sammons Cancer Center
  
- ◆ New protocol sets lower standard than first Phase I Trial
  - Treating newly diagnosed patients; introducing cytoreduction (reduces the number of cancer cells)
  - New patient population is likely to respond better to treatment based on medically accepted criteria
  - No toxicity outside of blood cells at doses expected to be clinically effective
  
- ◆ Targeting interim results by ASH 2014
  
- ◆ Key highlights of the alpha program
  - Fourth time HuM195 and alpha-particle studied in patients
  - Clinically relevant pharmacologic effect seen in prior trials
  - Proven alpha-particle safety profile balanced with “sufficient potency” could lead to ability to control disease with improved survival



# ATNM's Proprietary Technology Platform

## APIT Technology



\* Certain  $\beta$  emitters, specifically Iodine -131 in Iomab-B, do not require a linker

## Key Highlights

- ◆ Proprietary strategy for Actimab-A encompasses patents for core aspects of drug preparation, production, composition and treatment using alpha radiation
- ◆ 35 Patents issued and pending, United States 7 (2 pending), International 26
- ◆ Eligible for orphan drug exclusivity
- ◆ Proprietary strategy for Iomab-B involves trade secrets, orphan drug and data exclusivities with intent to file process, labeling and other patents

Area	Description	US Expiration	US Status	Owner/Licenser
Platform Technology	Metastases larger than 1 mm	2019	Issued	MSKCC
Platform Technology	Antibody conjugates with DOTA chelators; methods of treating cancer using the same	2021	Issued	MSKCC
Drug preparation methods	Actinium 225 labeling method	2030	Pending	Owned
Drug preparation methods	Bismuth 213 labeling method	2019	Issued	MSKCC
Isotope production methods	Actinium 225 manufacturing in a cyclotron	2026/2027	Issued	Owned



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## Market Potential of Product Pipeline

#	Cancer Indication	Cases/Yr. in Target Market <sup>1</sup>	Target Population	Worldwide Market Potential (\$mm) <sup>2</sup>
1 <sup>st</sup>	Bone Marrow Transplant (BMT)	48,000	48,000	\$4,100
2 <sup>nd</sup>	Acute Myeloid Leukemia (AML)	41,600	24,000	\$920
3 <sup>rd</sup>	Glioblastoma Multiforme (GBM)	26,500	26,500	\$1,100
4 <sup>th</sup>	Prostate Cancer (metastatic)	591,000	298,455	\$5,959
5 <sup>th</sup>	Metastatic Colorectal Cancer	536,000	241,200	\$4,824

1. Target market includes USA, EU and Japan

2. Market Potential calculated based on assumption that Actinium products for solid cancer indications will be priced at \$20,000 per treatment; BMT preparation product will be priced at \$85,000 per treatment; AML product will be priced at \$60,000 per treatment; and GBM product will be priced at \$60,000 per treatment. Estimates based on independent third party research and adjusted for lower pricing in non-US markets.

### BMT (Iomab-B)

- ◆ The \$1.3 billion Bone Marrow Transplant (BMT) market in the US is largely unaddressed by novel pharmaceutical drug companies
- ◆ BMT is the fastest growing hospital procedure in the US
  - ~20,000 of the ~60,000 BMTs in 2010 were performed in the US
- ◆ Sustained growth in patients treated over 55 yrs old
  - 8% in 2000 to 21% in 2005 and 27% in 2007

### AML (Actimab-A)

- ◆ Acute Myeloid Leukemia is the deadliest form of leukemia
  - 55% of AML patients are over 65 years old
  - Disease is worse in older people
  - Insufficient treatment options are available in the marketplace
  - Treatment kills as many patients as it helps due to toxicity



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Source: "Current Uses and Outcomes of Hematopoietic Stem Cell Transplantation 2010", CIBMTR Summary Slides; Company estimates

# Near-term Value Drivers

*Multiple milestones in next 12-18 months*

- ◆ **Iomab-B**
  - ✓ Complete Phase III Protocol
  - ✓ Start cGMP mAb mfg
  - ✓ Start drug mfg cGMP process
  - Complete cGMP mAb mfg
  - Complete Drug mfg cGMP
  - Submit Phase III IND
  - Start Phase III
- ◆ **Actimab-A**
  - Complete Phase I trial
  - Complete mfg. improvements
  - Start and complete Phase II trial
- ◆ **Third Program**
  - Start preclinical development
  - Complete preclinical development
  - Potentially file IND
- ◆ **Additional Analyst Coverage**
- ◆ **Collaborations**
- ◆ **Partnering**



## Company Overview

- ✓ Prior clinical data for Iomab-B and Actimab-A support pivotal/phase II development respectively
- ✓ Potential as breakthrough therapy implies successful market penetration for both Iomab-B and Actimab-A
- ✓ APIT platform poised to deliver multiple cancer drugs with blockbuster potential
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September/October 2014  
Company Presentation  
Trading Symbol: ATNM

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