

Actinium Investment Highlights

- Actinium is a leader in the field of ARC's or Antibody Radiation-Conjugates for Targeted Conditioning
- Pivotal Phase 3 SIERRA Trial over 50% enrolled for lead candidate Iomab-B
- Positive interim SIERRA data from first 25% of patients presented at ASH 2018 in oral presentation
- Targeted Conditioning is ripe for innovation with no competition in clinical trials
- Multi-billion market opportunity contained within the top 50-80 medical centers in the U.S.
- Opportunity for expansion into other indications in BMT or Bone Marrow Transplant, CAR-T and other cell therapy Targeted Conditioning
- Ongoing research collaboration with Astellas Pharma, Inc. utilizing our AWE technology platform

Pipeline Focused on Eliminating Chemotherapy Prior to Potentially Curative BMT and CAR-T with our ARC's

Focus	Program	Potential Indication	Development Stage			
			Preclinical	Phase 1	Phase 2	Phase 3
Targeted Conditioning for BMT & CAR-T	Iomab-B BMT - CD45	r/r AML 55+	Pivotal Phase 3 SIERRA			
	Actimab-MDS BMT - CD33	MDS	Phase 1	Planned Pivotal Program		
	Iomab-ACT CAR-T CD45	CAR-T	Planned Phase 1			
ARC Therapeutics and Combinations	Actimab-A + Venetoclax	r/r AML	Phase 1	Dana-Farber Cancer Institute, UCLA Health		
	Actimab-A CLAG-M	r/r AML	Phase 1	Johns Hopkins University		
	Actimab-M	Multiple Myeloma	Phase 1			

AWE Technology Platform



Preclinical activities include:
CD38 - Ac-225 ARC for multiple myeloma
ARC's for solid tumors
Research collaboration with Astellas



Symbol: ATNM NYSE AMERICAN

Management:

Sandesh Seth, Chairman & CEO

Mark Berger, MD, CMO

Dale Ludwig, PhD, CSO

Anil Kapur, CCO

Steve O'Loughlin, PFO

Finance & Stock Information:

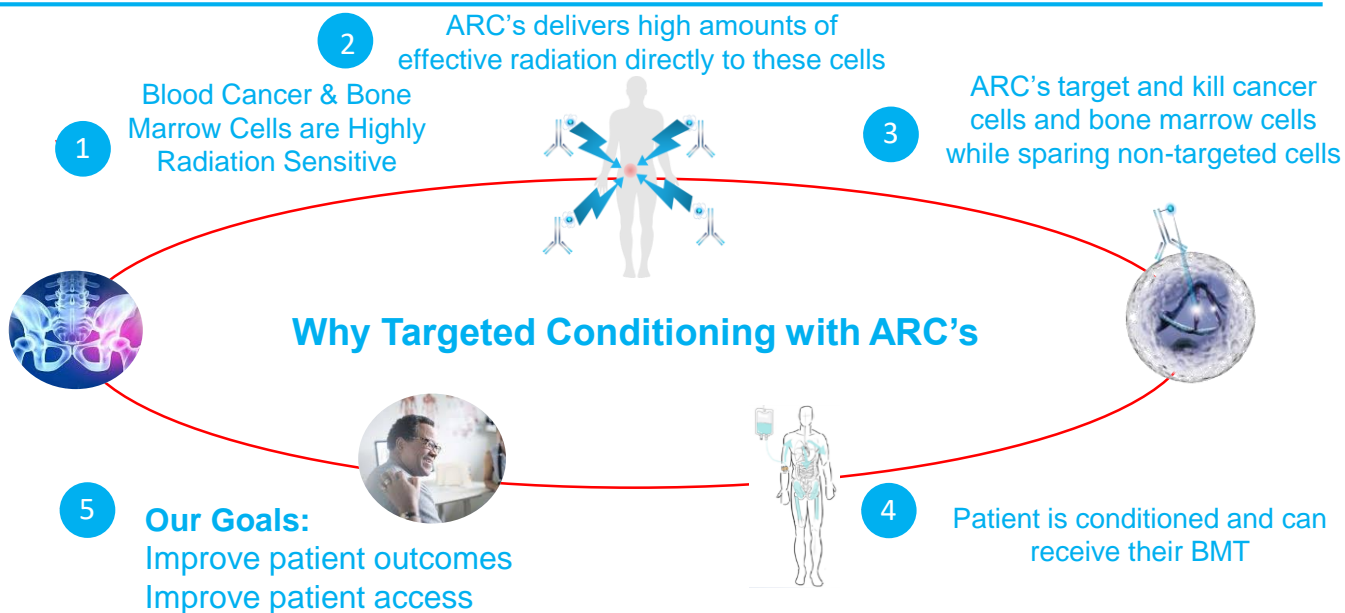
Cash on Hand: \$19.5 million*
*as of 6/30/19

Market Cap: \$40 million

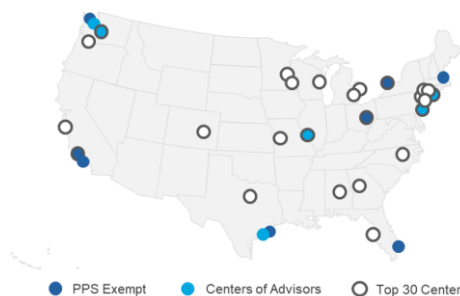
Shares O/S: 162 million

Avg. Vol: 1.1 million shares/day

www.actiniumpharma.com



Multi-billion Dollar Market Opportunity for Targeted Conditioning Concentrated Within the Top 50-80 BMT Centers



BMT represents a multi billion \$ market opportunity that is currently underserved ⁽²⁾	
Acute Myeloid Leukemia (AML) Actinium sponsored pivotal Phase 3 trial	\$2.0B
Indications studied at Fred Hutch representing potential label expansion	
Myelodysplastic Syndrome (MDS)	\$1.6B
Acute Lymphoblastic Leukemia (ALL)	\$250M
Non-Hodgkin's Lymphoma (NHL)/Hodgkin's Lymphoma (HL)	\$1.4B
Multiple Myeloma (MM)	\$1.3B
Total	\$6.6B

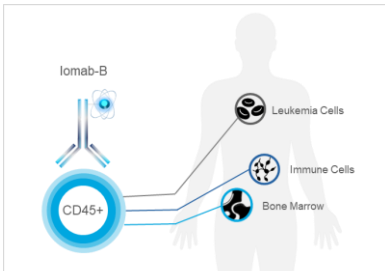
Near-term catalysts from Pivotal Phase 3 trial, 2nd pivotal program and AWE technology platform

	Milestones	Status
Targeted Conditioning & Lymphodepletion		
Iomab-B Phase 3 SIERRA Trial	Present data from first 25% of patients at ASH, TCT and ASCO	✓
	Reach 50% Enrollment	✓
	Present additional SIERRA data	2H:2019-2020
	Complete Enrollment/Topline Data	2020 - 2021
Iomab-ACT	File BLA/Commercial Launch	2020-2021
	Present supportive preclinical data at TCT and SNMMI	✓
	Secure development partner	2H:2019-2020
Actimab-MDS Pivotal Program	Clinical and strategic updates	2020
	Initiate Phase 1 clinical trial	✓
CD33 ARC Therapeutics and Combinations and AWE	Generate Proof of Concept Data	2020
	Actimab-A Venetoclax	Present supportive preclinical data at AACR
AWE Technology Platform	Proof of Concept Data from Actimab-A Venetoclax combination trial	2020
	Progress collaborative research partnership with Astellas	✓

Actinium is leading Targeted Conditioning that is applicable to several diseases and applications representing a growing market opportunity

Pivotal Phase 3 Iomab-B & the SIERRA Trial

Iomab-B Targets CD45: The Ideal Target for BMT Conditioning with ARC's

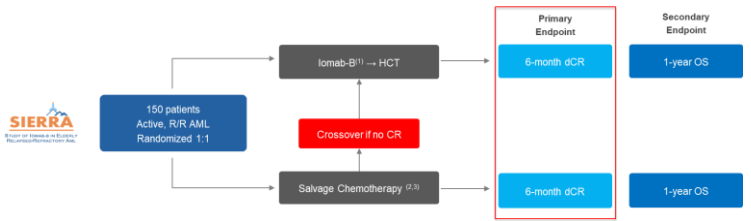


Iomab-B eliminates the CD45+ cancer cells and bone marrow cells necessary for a successful BMT to occur



- Iomab-B extensively studied at FHRC
 - 300+ patients
 - 12 clinical trials
 - 6 diseases
 - Improved survival and curative outcomes

SIERRA – Only Phase 3 Trial to Offer BMT



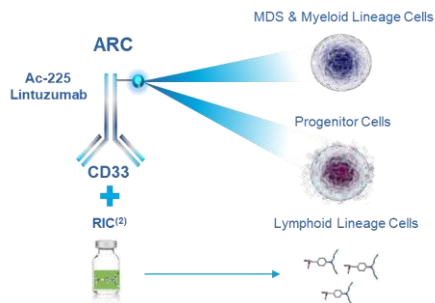
- Need to show a 2x difference in dCR to achieve primary endpoint
- Statistics and powering called for 61 patients per arm

Compelling Interim SIERRA Results

- [Universal engraftment for all patients receiving Iomab-B including crossover patients](#)
- Iomab-B well tolerated, no treatment related mortality
- Iomab-B gets patients to transplant faster than salvage chemo
- [Webinar of Dr. Sergio Giralt, Chief Attending Physician, Bone Marrow Transplant at Memorial Sloan Kettering discussing interim SIERRA results](#)

Targeted Conditioning Franchise Expansion

Actimab-MDS Program: Second Pivotal Program for BMT Conditioning

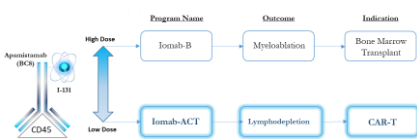


- Leverages ATNM's deep CD33 experience
- Current approaches to high-risk MDS BMT similar to AML (MAC or RIC)
- No other trial of its kind for patients with high-risk MDS
- [Webinar of Dr. Gail Roboz, Director of Clinical and Translational Leukemia at Weill Cornell highlighting the Actimab-MDS program](#)

Patient goes to BMT

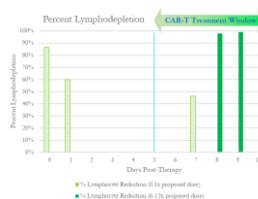


Iomab-ACT Program: Lymphodepletion for CAR-T and Other Cell Therapies



- Lower dose of Iomab-B
- Single Dose
- Outpatient
- Fits seamlessly with CAR-T process
- [Webinar of Dr. Nirav Shah, Ass. Prof. of Medicine, Hematology at Medical College of Wisconsin highlighting the Iomab-ACT program](#)

Patient goes to CAR-T



AWE Technology Platform Driving Partnerships and Innovation



- Executed collaboration with Astellas in March 2018
- Actinium received seven-figure upfront payment and research funding
- Leverages Actinium's expertise and capabilities in ARC's

