PharmAthene

Corporate Presentation
April 2016

Safe Harbor Statement

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This presentation contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended. This information may involve known and unknown risks, uncertainties and other factors that are difficult to predict and may cause the Company's actual results, performance or achievements to be materially different from future results, performance or achievements expressed or implied by any forward-looking statements. Forward-looking statements, which involve assumptions and describe management's current expectations regarding the Company's future plans, strategies and objectives, are generally identifiable by use of the words "may," "will," "should," "expect," "anticipate," "estimate," "believe," "intend," "project," "potential" or "plan" or the negative of these words or other variations on these words or comparable terminology. Such statements include, but are not limited to, statements about future government contract awards, potential payments under government contracts, potential regulatory approvals, future product advancements and anticipated financial results. These forward-looking statements are based on assumptions that may be incorrect, and we cannot assure you that the projections included in these forward-looking statements will come to pass. The Company's actual results could differ materially from those expressed or implied by the forward-looking statements as a result of various factors, including, but not limited to the "Risk Factors" included in the Company's annual report on Form 10-K and other reports filed with the SEC.

PharmAthene Investment Highlights

- **Significant near-term valuation catalyst**
  - Total award of more than $205 million, consisting of damages and interest, awarded by Delaware Chancery Court, and upheld by Delaware Supreme Court
- **Portfolio of vital biodefense medical countermeasures**
  - Developing two next-generation Anthrax vaccines, potentially differentiated in protection, dosing and required storage over currently used vaccines
  - Strategy to secure partnerships for development and commercialization
- **Large and federally mandated national biodefense markets**
  - Urgent stockpile requirements, $1B+ revenue opportunities
- **Experienced management team**
  - Previous long-term working relationships with strong execution skills

Near-Term Valuation Catalyst: SIGA Litigation

- Delaware Chancery Court awards lump sum damages, plus interest, to PharmAthene for its lost profits due to SIGA's breach of 2006 merger contract over drug candidate Tecovirimat (ST-246)
- Delaware Supreme Court affirms judgment during December 2015
  - **Total award payable to PharmAthene: ~$205 million plus interest until the judgment is satisfied**
- Under SIGA's bankruptcy reorganization plan, it must by October 20, 2016 satisfy the judgment in one of three ways:
  - Payment in full in cash to PharmAthene
  - PharmAthene receives 100% of SIGA's stock
  - Other treatment mutually agreed upon by SIGA and PharmAthene and approved by the Court

SIGA Bankruptcy Plan Approval Scenarios

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- If SIGA satisfies judgment in cash:
  - PharmAthene currently expects that it will distribute at least 90% of after tax net cash proceeds to its shareholders. The timing and form of distribution will depend upon PharmAthene's analysis of its current situation, applicable corporate statutes related to distributions and the economic consequences to its shareholders of any such distribution.
  - Net operating loss carryforwards of about $156 million will partially offset tax impact
  - PharmAthene plans to seek M&A or other partnering transactions to maximize the value of its remaining assets.
- If SIGA satisfies the judgment by delivering its shares, PharmAthene will:
  - Develop a transition plan for managing and operating SIGA as a separate business

Need for Next Generation Anthrax Vaccines

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- Current requirement for national Anthrax stockpile: 75 million doses
- Current vaccine (BioThrax®)- only FDA licensed Anthrax vaccine
  - 5 year $1.25B BioThrax contract - 45MM doses - annual sales of ~$250MM
  - Sub-optimal time to protection, dose schedule and thermal stability
- U.S. Government focused on next generation products with faster time to protection with one or two doses and elimination of the need for temperature controlled handling
- Expect advanced development funding RFP during fiscal 2017 (begins October 1, 2016)
- PharmAthene's two next generation development candidates:
  - Lyophilized rPA Anthrax Vaccine
  - DPX-rPA Anthrax Vaccine

The Future of Modern Anthrax Vaccines: Lyophilized rPA Anthrax Vaccine

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Next Generation Recombinant Protective Antigen (rPA) Anthrax Vaccine

Target Product Profile

- U.S. Government requirement:
  - Improved potency
    - Protective immunity 2 or fewer doses
  - Enhanced stability
  - Temperature stable; no cold chain

The Future of Modern Anthrax Vaccines: Lyophilized rPA Anthrax Vaccine

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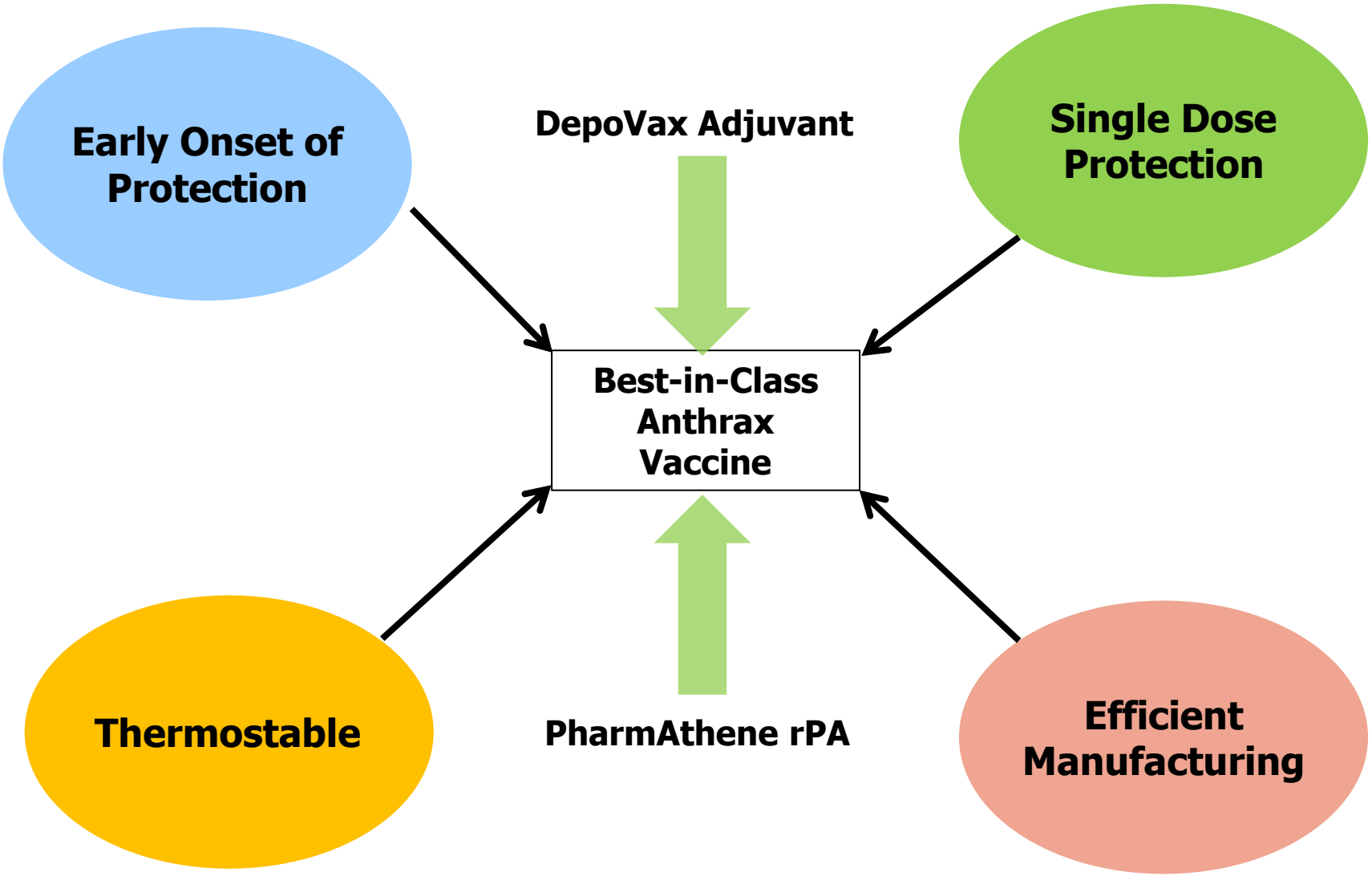
Next Generation Recombinant Protective Antigen (rPA) Anthrax Vaccine

Program Status

- $28M contract for preclinical development through a Phase 1 clinical trial (2014 – 2019)
  - $5.1M received as of the end of 2015
- Goal: Development of a Alhydrogel based lyophilized rPA vaccine in a dual chamber syringe
  - Animal efficacy study in the NZW rabbit model in 2016
  - IND filing with U.S. FDA in 2017
  - Phase 1 Clinical trial in 2018

PharmAthene's DepoVax Anthrax Vaccine (DPX-rPA)



DepoVax Anthrax Vaccine (DPX-rPA)

- 2015 license deal with ImmunoVaccine Technologies (IMV) for exclusive use of DepoVax™ adjuvant (DPX) to develop an Anthrax vaccine using PharmAthene's rPA (the active protective substance)
- IMV reported promising safety data of DPX in human studies
- PharmAthene's rPA has been shown to be immunogenic and safe in over 700 human subjects
- DPX co-administered with rPA has been shown to be highly effective in animal model studies
- Adding DPX to PharmAthene's rPA may:
  - Reduce the number of doses required for protection
  - Shorten the time necessary for protection
  - Enable high yield/high purity production
  - Allow extended room temperature storage
- PharmAthene expects to file an IND for the DPX rPA vaccine around the beginning of 2017

Background for DepoVax-rPA Collaboration

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DepoVax-rPA Anthrax Challenge – reported January 2015

- Non-clinical study conducted by National Institutes of Health (NIH)
- PharmAthene's rPA was among three vaccines combined with IMV's DepoVax enhancement technology
- In aggregate across the three rPA sources, 63% (15 of 24) of animals exposed to Anthrax 28 days following a single vaccination were well protected, compared with 0% among control arms
- Subsequently, PharmAthene was selected by IMV as exclusive rPA provider for continued development in July 2015

DPX-rPA vs Best-in-Class Target Profile

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Product Target	DPX-rPA	Best-in-Class Profile
Onset of Protection	Protection demonstrated as early as 14 days	Less than 2 months
Dosing	Single dose protection	Single dose protection
Thermal Stability	Stable at room temperature	Stable at room temperature
Yield/Purity	High yield/High purity	High yield/high purity
Specificity	rPA and adjuvant is administered	Purified rPA
Safety	No significant local or systemic toxicity	No significant local or systemic toxicity

DPX-rPA vs Next Generation Candidates

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	PTHN	Emergent Biosciences		AltImmune	Pfenex	
	DPX-rPA	NuThrax	PreviThrax	AdVav	Px563L	Px563L-2nd gen
Onset of Protection	+++	+	++	+++	+	++
Dosing	+++	++	++	+++	+	++
Room Temp Stability	+++	++	+	++	+	++
Yield/Purity	+++	+	++	+	+++	+++
Antigen	+++	+	+++	+++	+++	+++
Safety	++	++	++	+	++	++
Development Stage	Pre-clin	Phase 2	Phase 2	Pre-clin	Phase 1	Pre-clin

DPX-rPA uniquely meets Best-in-Class criteria compared to other products currently in development

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