



Management Presentation

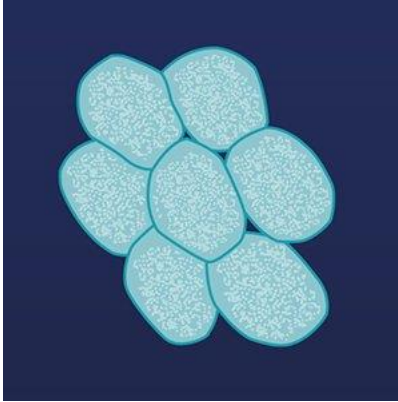
March 2019

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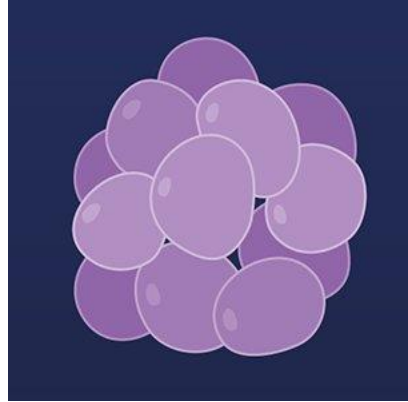
What is the problem that we are trying to solve?

- Overuse of broad spectrum antibiotics promotes antibiotic resistance
- Empiric therapy for pneumonia rules the day
 - physicians do not have timely information, patients are prescribed broad-spectrum antibiotics in “one-size-fits-all”
 - Sputum microbiology has 40% sensitivity, poor specimen attainment and up to 3 days for results
- Unnecessary hospitalizations and resulting secondary bacterial infections increase healthcare costs

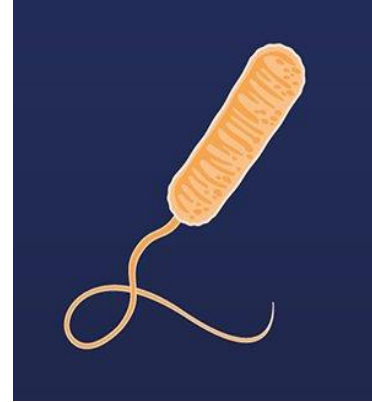
The Most Dangerous Bacterial Pathogens



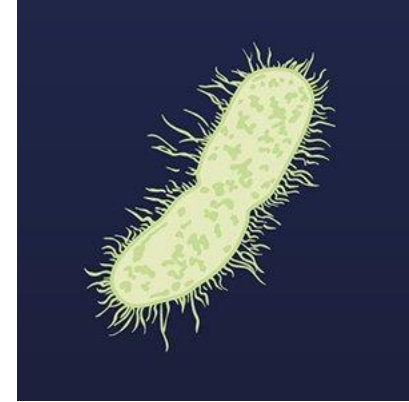
Acinetobacter



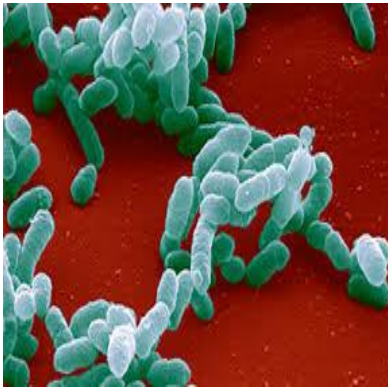
Staphylococcus aureus



Pseudomonas



Klebsiella



Haemophilis influenzae



Clostridium difficile



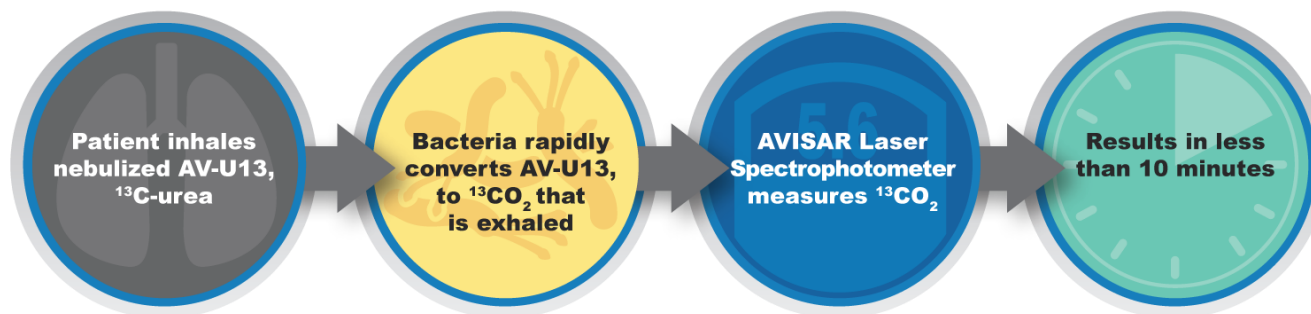
Tuberculosis



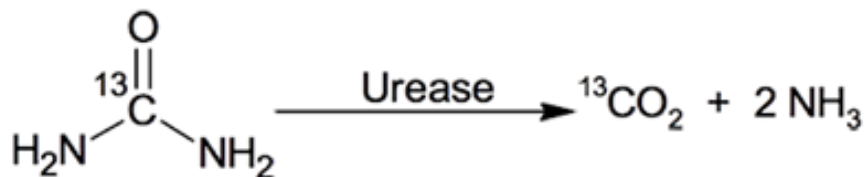
Burkholderia

Solution: The Avisa BreathTest (ABT)

- Simple, Point of Care System to Measure the Whole Lung
 - Drug/ Device Combination
 - Akin to a thermometer



- Agent: AV-U13 (¹³C-urea)
 - Safe, non-radioactive, stable



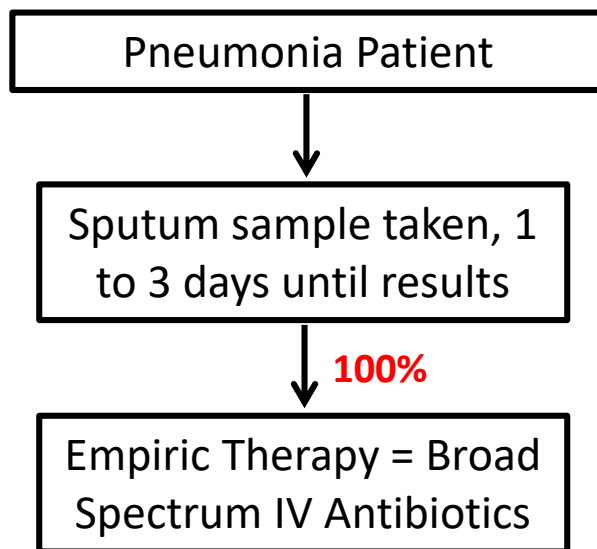
- Device: AVISAR™
 - Laser spectrometer w/ nebulizer



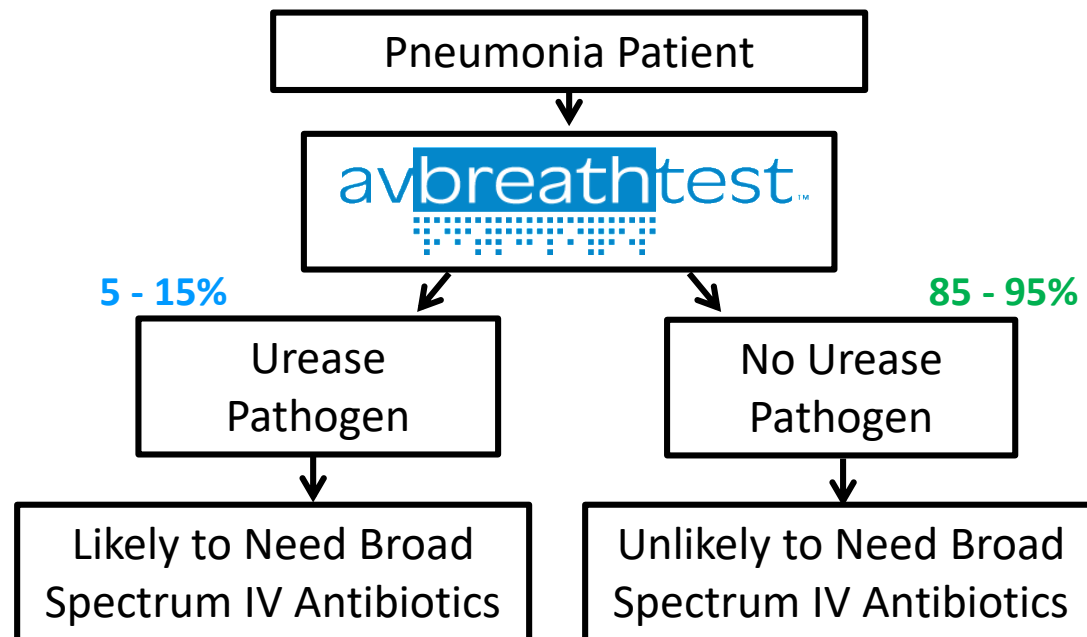
ABT Solution for Pneumonia in ED (PED)

Powerful Negative Predictive Value: To Treat or not Treat

Current Standard of Care



Avisa BreathTest



- 2.3MM annual cases of PED in the U.S. (60% are hospitalized)
- Cost of PED is approximately \$15,000 per hospitalization in the U.S.

ABT Pneumonia in the ED Pilot Study

- 60 Patient Study of the ABT in Emergency Department (ED) Patients with Suspected Bacterial Pneumonia
- Study Clinical Sites and Investigators
 - University of New Mexico Health Sciences Center
 - Study Principal Investigator: Justin Baca, MD, PhD
 - Henry Ford Hospital, Detroit, MI
 - Site Principal Investigator: Richard Nowak, MD

Positive Pneumonia Pilot Study Results

- ABT was Well Tolerated and Safe
 - No major Adverse Events (AEs) related to ABT
 - Seven mild AEs of cough that resolved spontaneously
- ABT Demonstrated Statistical Significance for Detection of Urease Producing Pathogens

FDA Called ABT A “Novel Technology”

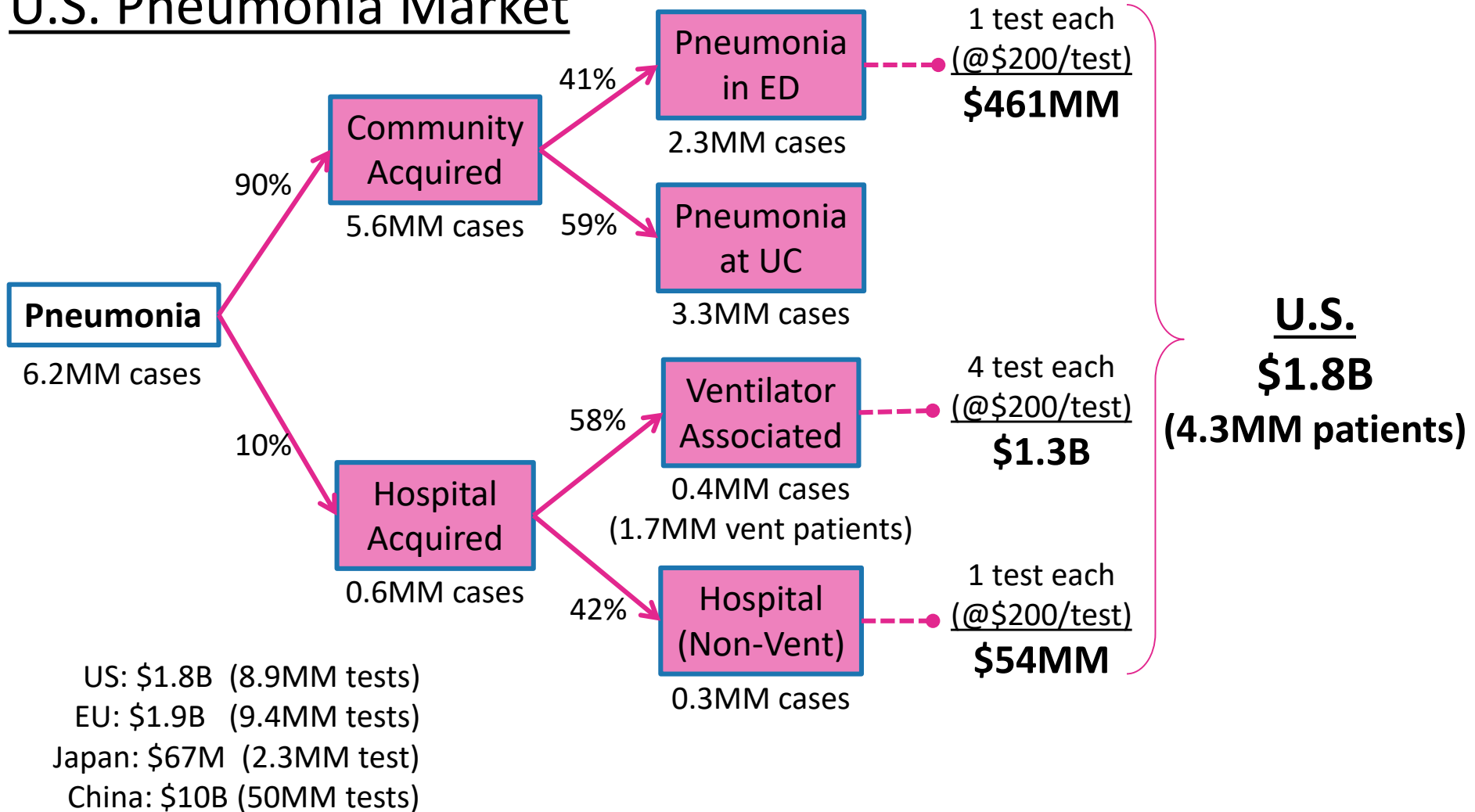
- The ABT is the First Technology to Detect Live, Dangerous Urease Lung Bacteria in Minutes
- Positive Pre Sub Meeting with FDA in Planning Pivotal Trial for FDA Approval Will Include:
 - Community Acquired Pneumonia (CAP) - Pneumonia in the ED
 - Hospital Acquired Pneumonia (HAP) to be added to the pivotal trial
- Overall, the FDA is Supportive:
 - “want the company to succeed”
 - “needed nothing like this in the market”
 - “exciting technology”

ABT Ventilator Associated Pneumonia Pilot Study

- One in four patients on mechanical ventilation for > 48 hours will develop a lower respiratory tract infection
- Ventilator associated infections increase length of stay by 5 to 12 days, increase morbidity and mortality by 33%
- 40 Subjects on Mechanical Ventilation with New Lower Respiratory Tract Infection \geq 48 hours post intubation
- Collaboration with Dr. Todd Rice of Vanderbilt University

Initial Target Markets – \$1.8B Annually

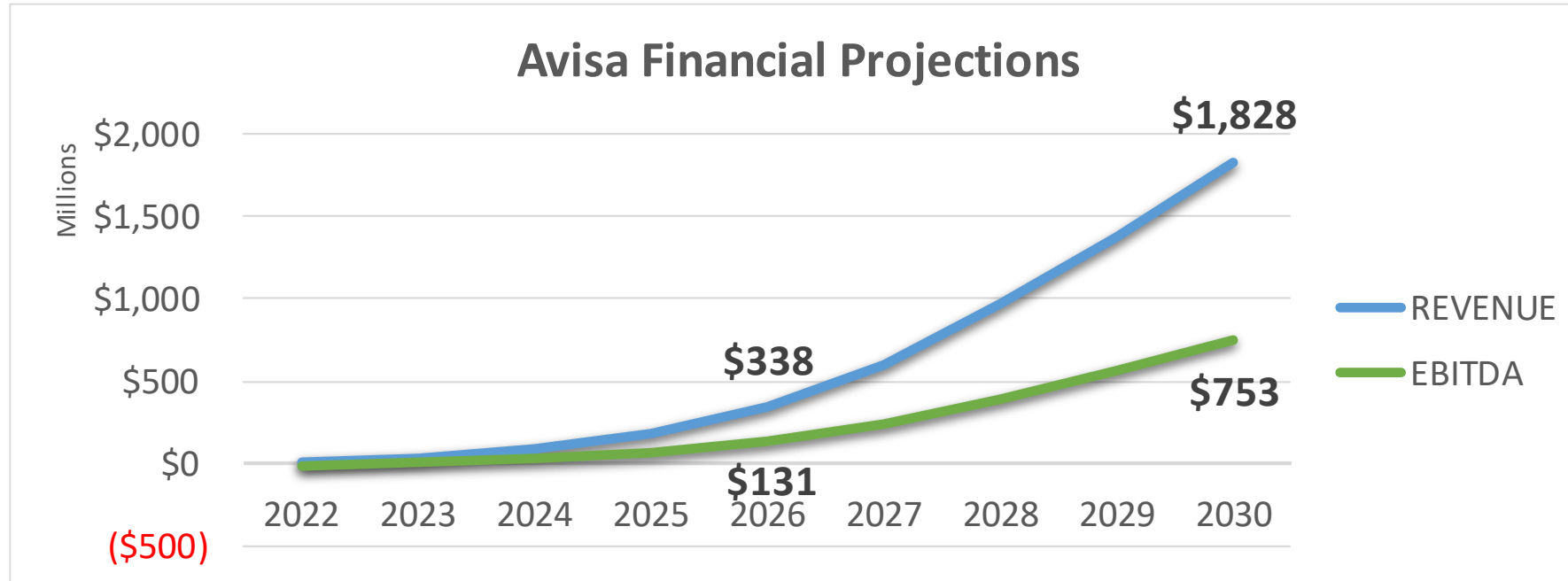
U.S. Pneumonia Market



Targeting Large Market With Rapid Penetration Strategy

- Over 30,550 Inpatient and Ambulatory Facilities in the U.S.
 - 5,500 Hospitals - Emergency Departments, ICU/CCU's, Nursing Units & Clinics
 - 15,000 Skilled Nursing Facilities
 - 7,500 Urgent Care Center
 - 550 Free Standing Emergency Rooms
 - 2,000 Walk-In Clinics
- U.S. Go-to-Market via Razor/Razor Blade Strategy
 - Razor blade – ABT kit (drug+nebulizer - \$200) In U.S.
 - Razor – AVISAR (no cost - breakeven: 35 tests or ~2 months)

Avisa Financial Projections – Pneumonia in the U.S.



- Assumes Just 2 U.S. Products: Pneumonia in ED+HAP and VAP
- EBITDA Margins Reach 40%+

Development Timeline

Avisa has developed a streamlined development path in PED and VAP with the potential for commercial launch in 2022

	2019	2020	2021	2022+
Product Development				
AVISAR™		Clinical Units		
AV-U13		Drug Batch		
Clinical & Regulatory				
PED			Pivotal Trial	FDA
VAP		Phase 2		Pivotal Trial FDA
Financing				
		\$20MM Series B		

- Regulatory Strategy
 - Avisa will pursue a pivotal clinical trial for the first ABT product (PED)
 - Supplemental PMAs will be filed for subsequent tests (i.e. VAP, COPD, CF, etc.)

The Avisa Team – Management

David Joseph President & CEO Co-Founder	<ul style="list-style-type: none">• 40+ yrs of experience commercializing medical devices and pharmaceuticals• Co-founder of four life science companies with successful exits (IPO, M&A)• Multiple past and present board positions
Elizabeth Perkett, MD Chief Medical Officer	<ul style="list-style-type: none">• Professor of Pediatrics specializing in pulmonary medicine, Vanderbilt Univ• Over 50 recent scientific and clinical publications• Cystic Fibrosis Foundation committee member
David Karshmer SVP, Product Development	<ul style="list-style-type: none">• 20+ yrs of experience in medical device design• Founded IDEO Healthcare practice, developed numerous medical products• Successful serial entrepreneur (Avisa is 6th start-up company)
John Maynard VP, Engineering	<ul style="list-style-type: none">• 25+ yrs experience developing medical devices based on spectroscopy• VP of Product Development, Engineering at VeraLight and InLight Solutions• 19 US patents and over 25 scientific publications
Matt Culler VP, Finance	<ul style="list-style-type: none">• 15+ yrs investment and financial management experience• VP of Finance & Operations (and acting CFO) at xF Technologies• Venture Capital and Investment Banking experience
Graham Timmins, PhD Chief Science Advisor	<ul style="list-style-type: none">• Associate Professor of Medicinal Chemistry at the University of New Mexico• Co-inventor of the Company's patent portfolio• Author/co-author of over 50 publications and recipient of several federal grants



Thank You

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