PARATEK®

Third Quarter 2020

Financial Results & Corporate Update

November 5, 2020

Paratek Pharmaceuticals, Inc. (Nasdaq: PRTK): A commercial-stage biopharmaceutical company focused on the development and commercialization of novel life-saving therapies for life-threatening diseases or for other public health threats for civilian, government and military use

Third Quarter 2020 Earnings Call Agenda

Introduction
Ben Strain, Vice President, Investor Relations & Corporate Communications

Overview & Financial Highlights
Evan Loh, M.D., Chief Executive Officer

Third Quarter 2020 Commercial Highlights
Adam Woodrow, President & Chief Commercial Officer

Pipeline, Medical & Future Value Drivers
Randy Brenner, Chief Development & Regulatory Officer

Q&A

Also available for Q&A:
Michael F. Bigham, Executive Chairman
Sarah Higgins, Vice President of Finance, Controller and Principal Accounting Officer

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Safe Harbor Statement

Third-party industry and market information included herein has been obtained from sources believed to be reliable, but the accuracy or completeness of such information is not guaranteed by, has not been independently verified by, and should not be construed as a representation by, Paratek. The information contained in this presentation is accurate only as of the date hereof.

This presentation contains forward-looking statements including statements related to our overall strategy, products, prospects, potential and expected results, including statements about the impact of the COVID-19 pandemic on our revenue projections, access to hospital institutions, supply chain and clinical trials, projected awareness, payor coverage, net product revenues, total revenues including assumptions related to our financial guidance, the financial impact of our BARDA contract including the status of the FDA review of the pre-EUA application, the status of our supplemental mouse pharmacokinetic data to support the human dose recommendation, the timing and exercise of BARDA's procurement of NUZYRA for the SNS, BARDA exercising full contract line items, including for U.S. onshoring and PMR reimbursement, our anticipated cash runway, our operating expenses, our SEYSARA royalties and SEYSARA -backed loan funded on May 1, 2019, the strategy, execution and progression of our commercial launch of NUZYRA, our ability to shape the future treatment paradigm for community-acquired pneumonia and serious skin infections, our plans to evaluate additional indications for NUZYRA, including NTM, and to work toward an oral-only indication in CABP, future governmental stockpiling opportunities, and our potential to further drive long-term value for all of our shareholders. All statements, other than statements of historical facts, included in this presentation are forward-looking statements, and are identified by words such as "advancing," "expect," "look forward," "anticipate," "continue," and other words and terms of similar meaning. These forward-looking statements are based upon our current expectations and involve substantial risks and uncertainties. We may not actually achieve the plans, carry out the intentions or meet the expectations or projections disclosed in our forward-looking statements and you should not place undue reliance on these forward-looking statements. Our actual results and the timing of events could differ materially from those included in such forward-looking statements as a result of these risks and uncertainties. These and other risk factors are discussed under "Risk Factors" and elsewhere in our Annual Report on Form 10-K for the year ended December 31, 2019 and our other filings with the Securities and Exchange Commission. We expressly disclaim any obligation or undertaking to update or revise any forward-looking statements contained herein.

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Third Quarter 2020

Overview & Financial Highlights

Evan Loh, M.D.

Chief Executive Officer

Paratek Pharmaceuticals, Inc. (Nasdaq: PRTK): A commercial-stage biopharmaceutical company focused on the development and commercialization of novel life-saving therapies for life-threatening diseases or other public health threats for civilian, government and military use

Third Quarter 2020 Highlights

Continued to Execute & Deliver Successfully Against Key Objectives

- **Continued sales growth of NUZYRA** due to strong demand
  - Generated $10.9 million in Q3 2020, a 35% increase over the prior quarter
- Showcased **7 posters at IDWeek 2020** highlighting important attributes of NUZYRA and built up the wealth of data for this therapy
  - Important highlights include **NUZYRA's ability to reduce *clostriodies difficile* infections when compared to standard of care**, such as quinolones and data showing NUZYRA to be both **effective and well-tolerated for a variety of infections, including pulmonary *Mycobacterium abscessus***
- **Significant progress** in the broad-based **Project BioShield public-private partnership with BARDA**
  - Supplemental mouse pharmacokinetic data and response document for the pre-EUA application for NUZYRA complete and with BARDA for final publishing and submission to FDA.

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Third Quarter 2020
Revenue Highlights

- Total Revenue = **$13.7 million**
  - NUZYRA net revenue = **$10.9 million** (~35% increase versus 2Q 2020)
    - Accounting for inventory, NUZYRA gross demand increased from approximately $9.5 million in 2Q 2020 to approximately $12.9 million in 3Q 2020; with inventory in the channel essentially flat
  - Other revenue = **$2.8 million** primarily from Government contract service revenue from BARDA

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Condensed Consolidated Statements of Operations (unaudited)

(in thousands, except loss per share data)

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2020	2019	2020	2019
Product revenue, net	$ 10,895	$ 3,053	$ 26,330	$ 6,102
Government contract service revenue	785	—	1,560	—
Government contract grant revenue	1,866	—	2,303	—
Collaboration and royalty revenue	113	881	710	1,475
Net revenue	$ 13,659	$ 3,934	$ 30,903	$ 7,577
Expenses:				
Cost of product revenue	2,017	958	5,724	1,731
Research and development	6,687	8,350	17,636	30,421
Selling, general and administrative	20,902	23,636	65,514	67,874
Total operating expenses	29,606	32,944	88,874	100,026
Loss from operations	(15,947)	(29,010)	(57,971)	(92,449)
Other income and expenses:				
Interest income	280	992	1,347	2,873
Interest expense	(5,178)	(4,560)	(14,974)	(11,777)
Other gains (losses), net	(10)	(36)	67	(72)
Net loss	$ (20,855)	$ (32,614)	$ (71,531)	$ (101,425)
Other comprehensive loss				
Unrealized gain (loss) on available-for-sale securities, net of tax	(154)	(68)	26	276
Comprehensive loss	$ (21,009)	$ (32,682)	$ (71,505)	$ (101,149)
Basic and diluted net loss per common share	$ (0.46)	$ (1.00)	$ (1.64)	$ (3.12)
Weighted average common stock outstanding				
Basic and diluted	45,483,346	32,590,454	43,591,724	32,458,010

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Total Revenue Now Expected at the Higher End of the Range

Lowering R&D and SG&A Expense Guidance

	Original Guidance Feb 2020	Updated Guidance Nov 2020	Comments
2020 Total Revenue	**$75M to $80M** **Assumed:** • ~$28M NUZYRA Net Sales • ~$38M BARDA procurement • ~$9M to $14M Royalty and Collaboration Revenue and BARDA Grant Revenue	**$78M to $83M** **Assumes:** • ~$37M – $39M NUZYRA Net Sales • ~$38M BARDA procurement • ~$6M to $8M Royalty and Collaboration Revenue and BARDA Grant Revenue	• **We now anticipate our full year 2020 total revenue to be at the higher end of the previously communicated range** • Includes NUZYRA net sales, government contract service revenue earned under the BARDA contract and royalty and collaboration revenue • Assumes the initial BARDA procurement of NUZYRA valued at approximately $38 million will occur by the end of this year, contingent on a timely completion of the pre-EUA review by FDA, although may occur in early 2021.
R&D and SG&A expense	**~$140M**	**~$120M**	• Favorability driven by a continued focus on operational efficiencies and the timing of certain expenses driven by the COVID-19 pandemic, some of which will now occur 2021

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Balance Sheet Highlights and Cash Runway Guidance

as of September 30, 2020

Key Metrics (unaudited)	09/30/20 balance
Total Cash, Cash Equivalents, and Marketable Securities	**$149.5 million**
Long-term Debt Obligation[3]	$250.6 million
Basic Shares Outstanding	45,639,406
Total Potentially Dilutive Securities[1]	17,752,382

Cash runway projected through 2023 with a pathway to cash flow breakeven[2]

1. Includes common stock issuable under the April 2018 convertible debt offering, options, restricted share units, warrants, and for our ESPP.
2. Assumes estimated NUZYRA US product revenue and BARDA reimbursement of activities. Company will be able to fund all company operating expenses, anticipated capital expenditures, and debt service, including repayment in full of the Hercules Loan and Security Agreement.
3. Includes $30.7 million of debt secured by and repaid based upon royalties on U.S. SEYSARA sales.

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Commercial Highlights

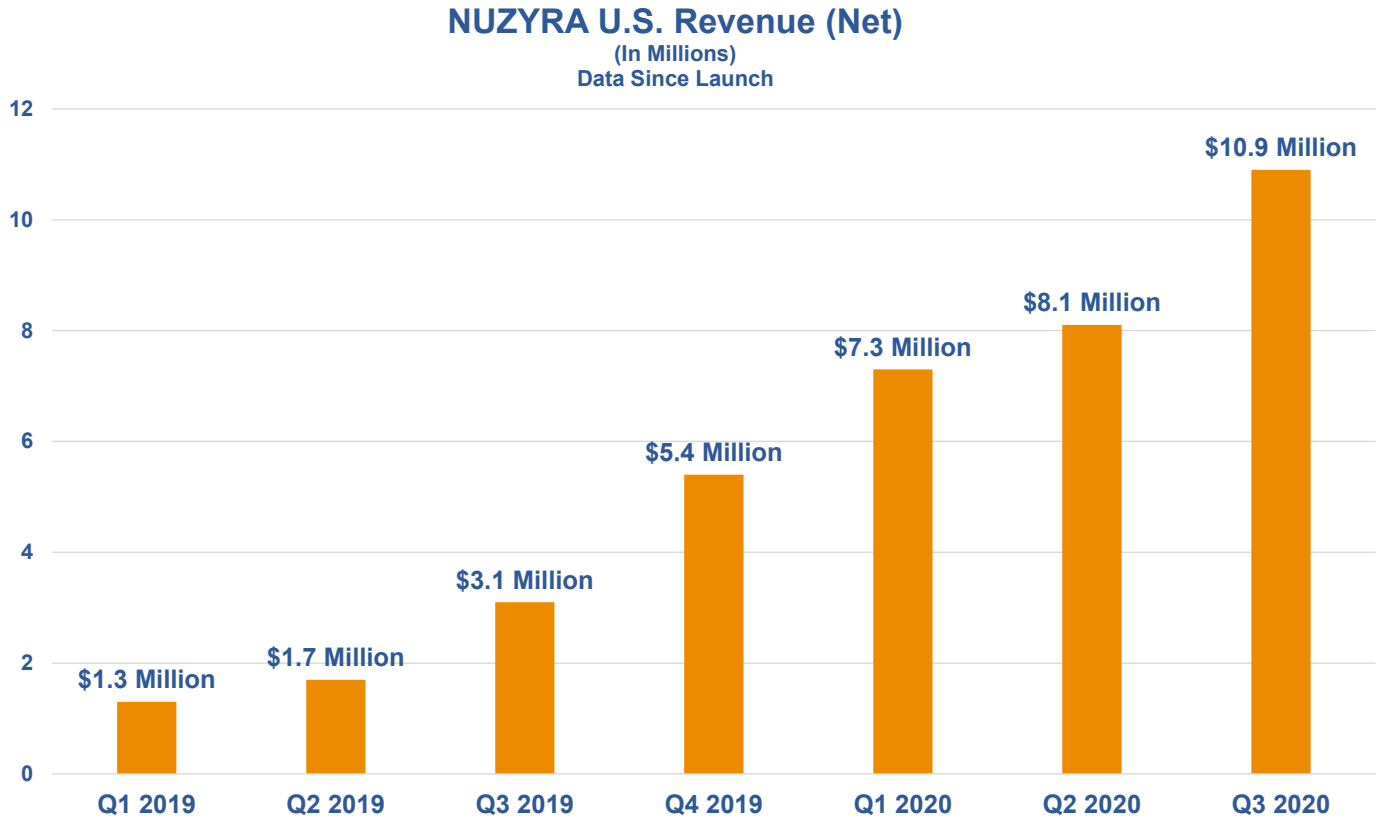
Adam Woodrow

President & Chief Commercial Officer

Paratek Pharmaceuticals, Inc. (Nasdaq: PRTK): A commercial-stage biopharmaceutical company focused on the development and commercialization of novel life-saving therapies for life-threatening diseases or other public health threats for civilian, government and military use

NUZYRA U.S. Launch QoQ Growth Performance

Generated $10.9 Million in Net Revenue in Q3 2020



Recent Highlights

- Commercial **success to date has been achieved without any notable expansion of our sales force** and related marketing efforts
- **NUZYRA grew 35% versus 2Q 2020 despite:**
  - An **over 18% decline in overall broad-spectrum antibiotic utilization** (3Q 2020 vs 3Q 2019; IQVIA)
  - **~25% reduction in patient flows to physician offices and institutions** compared to pre-COVID levels

NUZYRA is on track to have one of the most successful antibiotics launches in the last 5 years

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NUZYRA Third Quarter 2020 Commercial Performance

Revenue Driven by Strong Demand

- Total Revenue = **$13.7 million**
  - NUZYRA net revenue = **$10.9 million** (~35% increase versus 2Q 2020)
    - Accounting for inventory, NUZYRA gross demand increased from approximately $9.5 million in 2Q 2020 to approximately $12.9 million in 3Q 2020; with inventory in the channel essentially flat

NUZYRA is on track to have one of the most successful antibiotics launches in the last 5 years

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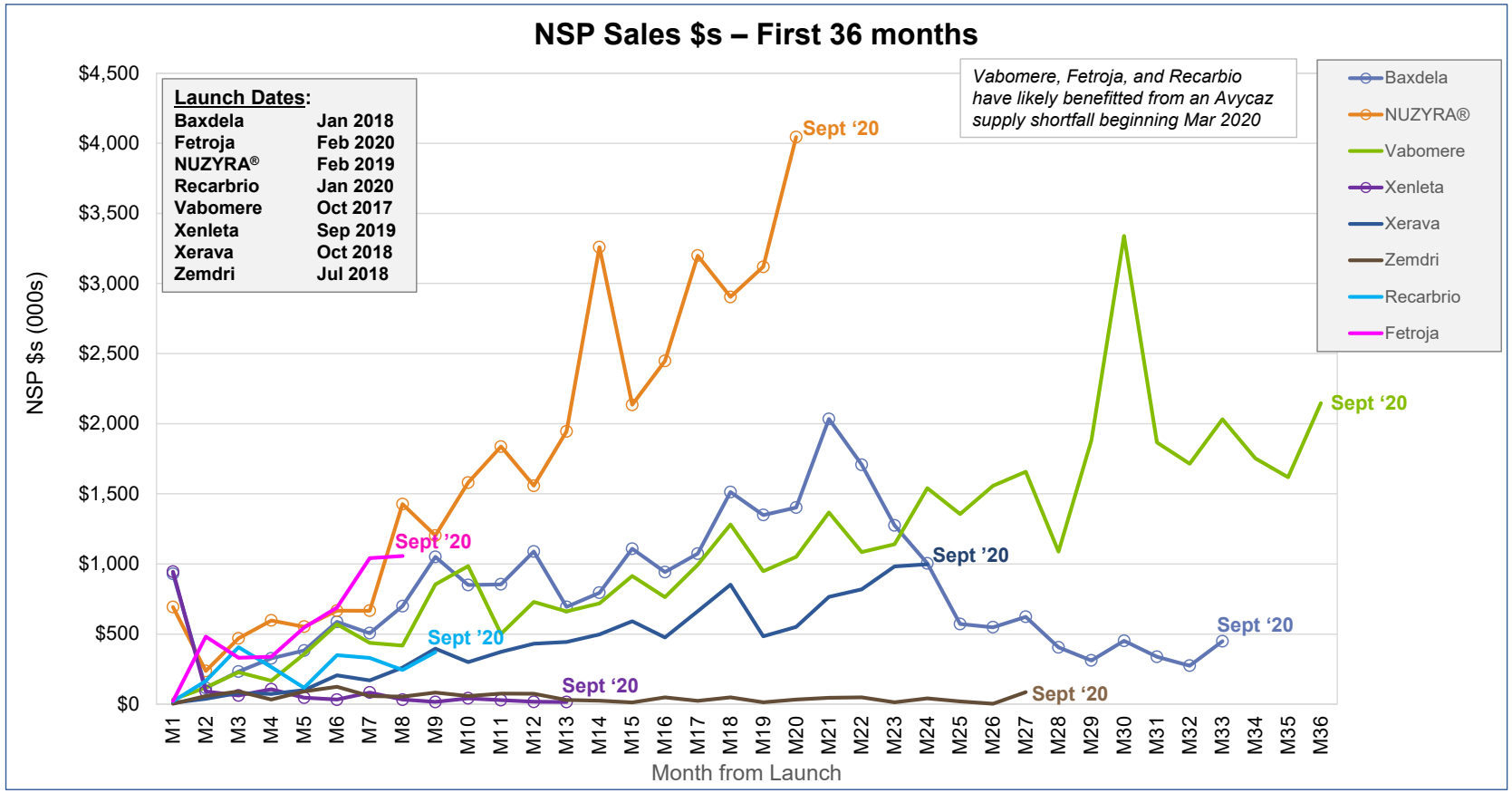
NUZYRA Materially Differentiating Itself From Recent Launches

Value = Oral for Both Go Home (Hospital) and Stay Home (Community) Settings



Source: NSP Sales $s

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NUZYRA Attributes Provide A Modern-Day Solution

Addressing Bacterial Resistance and the Needs of Today's Healthcare Systems

- NUZYRA is a **once-daily oral and IV broad spectrum antibiotic**
  - Community Acquired Bacterial Pneumonia (CABP)
  - Acute Bacterial Skin & Skin Structure Infections (ABSSSI)
- **High and durable clinical efficacy** with **favorable safety and tolerability**
  - **Addresses antibiotic resistance** which today is causing clinical failures with older generic antibiotics
- **Go Home & Stay Home Dosing Flexibility:**
  - Once-daily IV to oral NUZYRA has the potential to **minimize hospital stay**
  - Oral only indication(s) has the potential to **avoid hospitalization all together**

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COVID-19 Patients with Secondary Community-Acquired Bacterial Pneumonia (CABP): *Potential Role of NUZYRA*

Non infected

Asymptomatic

Symptomatic
Mild

Symptomatic
Moderate

Symptomatic
Severe/critical

COVID-19

NUZYRA®
(omadacycline)

Secondary CABP

- *FDA-approved for CABP*
- *Once-daily oral and IV broad spectrum antibiotic*
- *Addresses antibiotic resistance*
- *Established safety profile; No prolongation of the QTc interval*
- *No dose adjustments in special populations, including patients with renal failure*
- *No expected metabolic drug-drug interactions*

See www.nuzyra.com for full prescribing information

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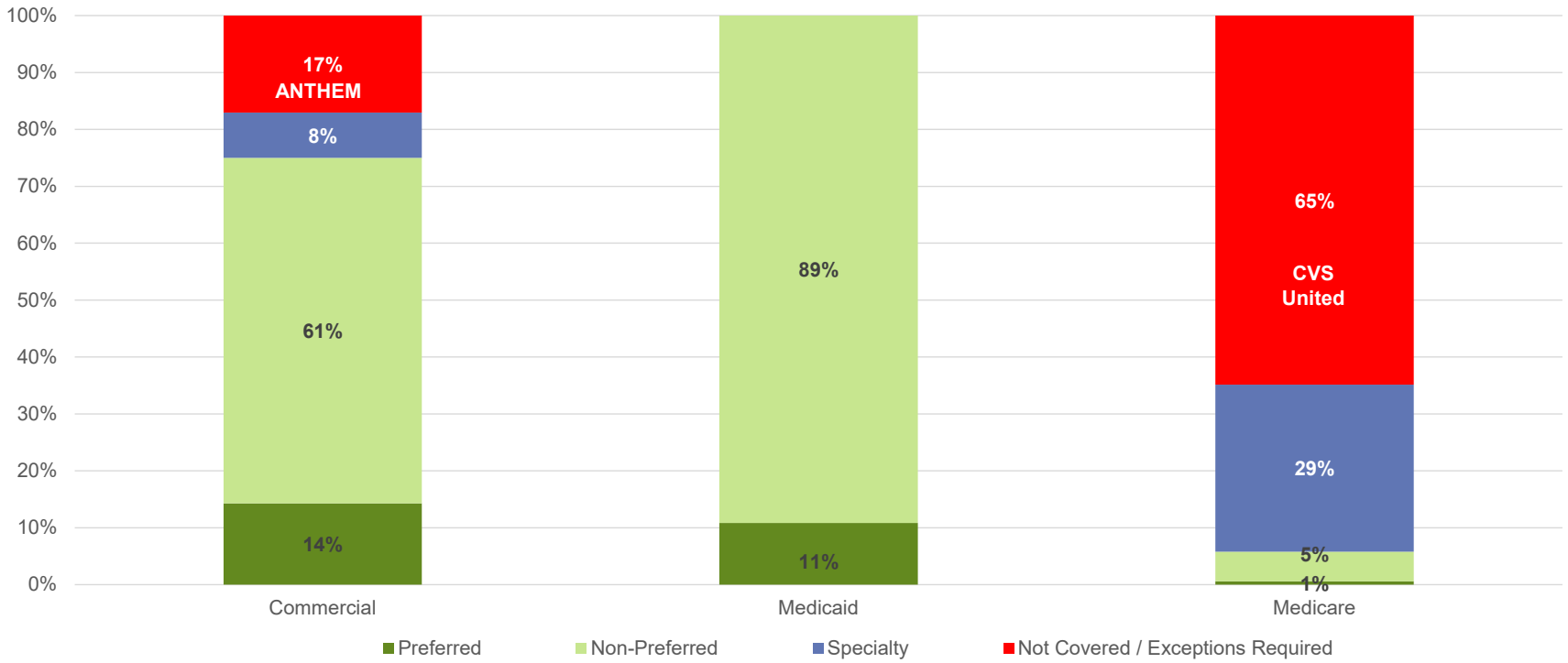
Strong NUZYRA Payer Coverage

As of October 2020



Source: DRG Fingertip Formulary Analytics, October 2020

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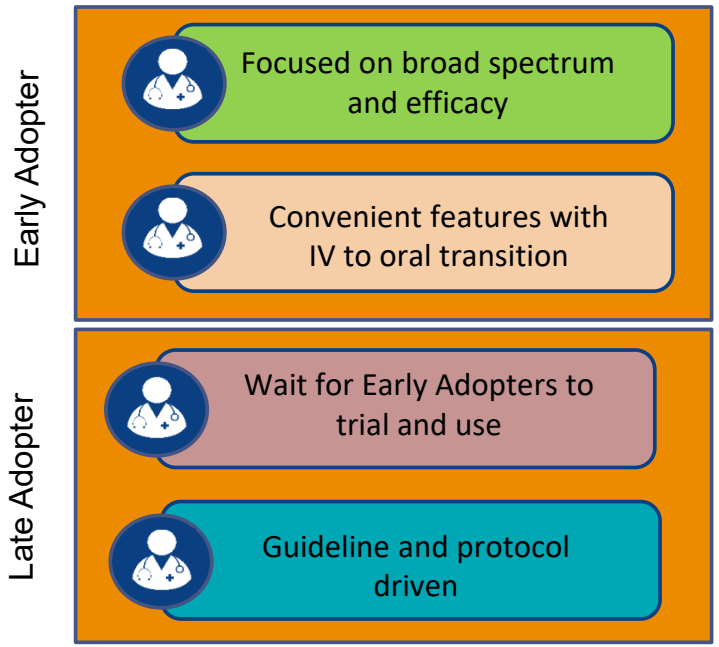
Focused Launch Targeting Early Adopters

Community Launch Set To Be Implemented in Early 2021

- Launch in **February 2019** with **40 Sales Specialists**
  - In Q3 2019, began to **expand the sales force size to ~60 sales specialists**
- **Focusing on 'Early Adopting'** HCPs in 'high value' institutions (~600), to drive institutional access
- **Inside Sales Team supplements** efforts of Sales Specialists to broaden outreach
- Plans are well underway to supplement our current institutional based sales force with a **targeted community sales force set to be established and implemented in early 2021**
  - Accomplished within our current cash runway guidance

Physician Segments



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Pipeline and Future Value Drivers

Randy Brenner

Chief Development & Regulatory Officer

Paratek Pharmaceuticals, Inc. (Nasdaq: PRTK): A commercial-stage biopharmaceutical company focused on the development and commercialization of novel life-saving therapies for life-threatening diseases or other public health threats for civilian, government and military use

BARDA Project BioShield Contract Awarded To Paratek

Unique & Transformative Opportunity Enabling Long-term Growth

- Paratek was the **sole recipient**
- **First-ever** BioShield award for an antibiotic for the Strategic National Stockpile
- On track be the **only antibiotics biopharmaceutical company** with a **fully U.S.-based supply chain** from API through final drug product
- **Valued at up to ~$285 million** over 5 years, with potential for extension up to 10 years
  - **$77 million** in reimbursement for **all** existing post-approval obligations
  - **$153 million** procurement purchase of NUZYRA for the Strategic National Stockpile
  - **$54 million** for anthrax development & U.S. onshoring of manufacturing

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FDA Publishes List of Essential Medicines & Medical Countermeasures

NUZYRA Now Included (30 October 2020)

- **Executive Order #13944** directs FDA to *"identify a list of essential medicines, medical countermeasures and critical inputs that are **medically necessary to have supply available at all times** in an amount adequate to serve patient needs and in the appropriate dosage forms."*

NUZYRA® / Omadacycline Now Included:

Drug Category: Biological Threat MCMs	
Amoxicillin	liquid / oral
Ciprofloxacin HCl	liquid / oral
Imipenem	IV
Levofloxacin	liquid
Moxifloxacin HCl	oral / IV
Obiltoxaximab	IV
Omadacycline	oral / IV
Raxibacumab	IV
Tecovirimat	oral
Adenovirus Type 4 and Type 7 Vaccine, Live, Oral	injectable
Anthrax Immune Globulin Intravenous	injectable
Anthrax Vaccine, Adsorbed	injectable
Botulism Antitoxin Heptavalent (A, B, C, D, E, F, G) Equine	injectable

- Essential medicines and medical countermeasures are **FDA-regulated products** (biologics, drugs and devices) meeting the definition of a "medical countermeasure" provided in the EO and the FDA anticipates will be needed to respond to future pandemics, epidemics, and chemical, biological and radiological/nuclear threats

- EO also directs the **FDA to coordinate with other federal partners** on a number of additional issues, including strategies for **acquiring the products** on the list, **accelerating domestic manufacturing** and identifying and addressing supply chain vulnerabilities.

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Paratek / BARDA Milestones

Contract Valued at ~$285 million

Events	Timing	Value	Comments
Initiation of Anthrax Treatment Development Program	**Dec 2019** ✓	**~$20M**	Contract executed
Submit Pre-Emergency Use Authorization Designation for NUZYRA in anthrax	**Q1 2020** ✓		Submitted
Initiate Funding for FDA Post Marketing Requirements Including CABP and Pediatric Studies	**Q2 2020** ✓	**~$77M**	Cost reimbursement initiated
Initiate Funding for Manufacturing Security-Related Requirements and Onshoring	**Q2 2020** ✓	**~$20M**	Cost reimbursement initiated
Procurement of Initial 2,500 Treatment Courses for BARDA Project BioShield	**2H 2020**	**~$38M**	Part of base award; **Anticipated by year end 2020**
Initiate Dosing on Animal Anthrax Studies	**2H 2020**		
Procurement of Second 2,500 Treatment Courses	**1H 2021**	**~$38M**	
Supplemental Prophylaxis Animal Development	**2H 2021**	**~$13M**	Initiate Prophylaxis Animal Work
Procurement of Third 2,500 Treatment Courses	**1H 2022**	**~$38M**	
Procurement of Fourth 2,500 Treatment Courses	**1H 2023**	**~$38M**	

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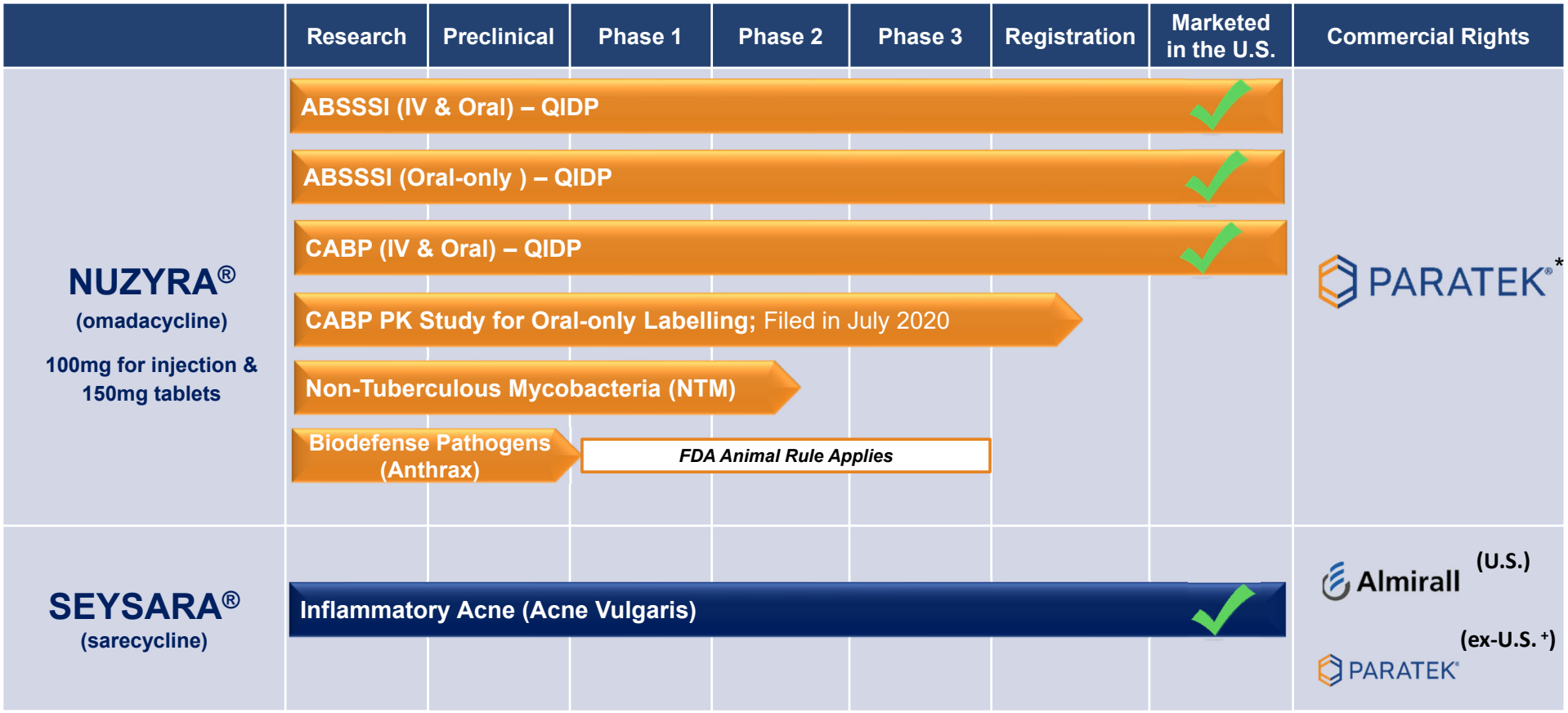
Paratek Pipeline



*We have entered into a collaboration agreement with Zai Lab (Shanghai) Co., Ld., for the greater China region
+We have entered into a license agreement with Almirall for the greater China region

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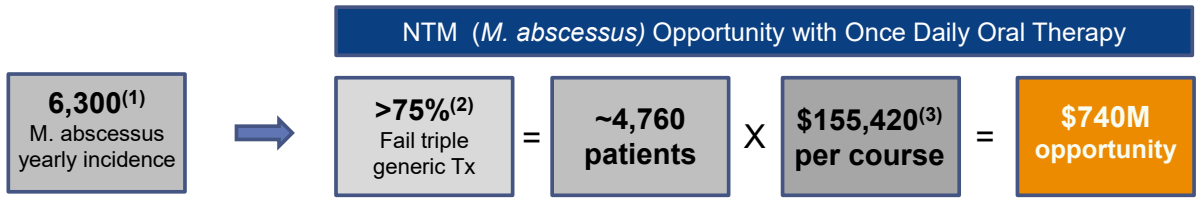
Non-Tuberculous Mycobacteria (*M. abscessus*)

Rare Disease Opportunity with a Potential $740 Million Addressable Market (2028)



- No approved therapies
- Triple antibiotic therapy approaches are most common
- Most Agents IV only
- Nearly 80% failure rate with existing treatments
- Long treatment duration typically 12-24 months

(1) Assumes 2028 NTM incidence of 72k, of which 9% is M. abscessus species. Strollo, "The Burden of Pulmonary NTM in the U.S.", AnnalsATS Vol 12;10, 2015. Lee, "Mycobacterium abscessus Complex Infections in Humans", EmergingInfDis, Vol 21;9, 2015.

(2) Am J Respir Crit Care Med Vol 175. pp 367–416, 2007 ("no antibiotic regimens based on in vitro susceptibilities has been shown to produce long-term sputum conversion for patients with M. abscessus lung disease. The goal of 12 months of negative sputum cultures while on therapy may be reasonable, but there is no medication strategy to reliably achieve this goal")

(3) 135 DOT in initial Tx to clear infection. Assuming success, avg 274 DOT (recommendation for 12mo of Tx after 3 negative cultures; assumes 75% compliance); $380 avg cost/day - blend of IV ($345/DOT) and Oral ($395/DOT)

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Non-Tuberculous Mycobacteria (*M. abscessus*)

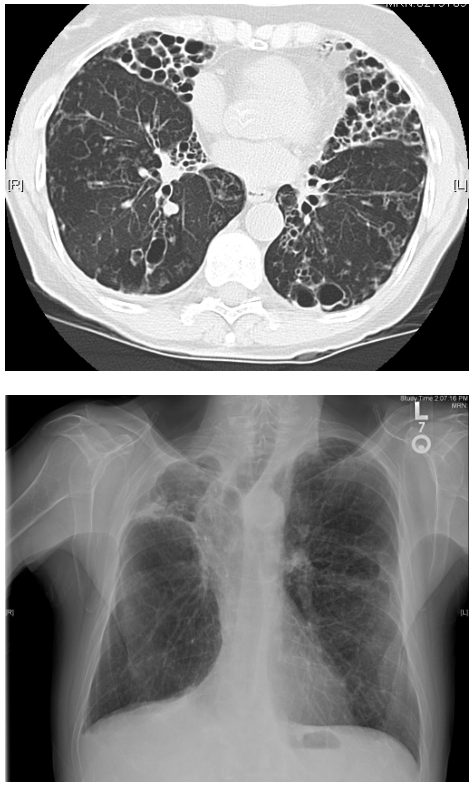
Potential Opportunity with Omadacycline

Prevalence of All NTM

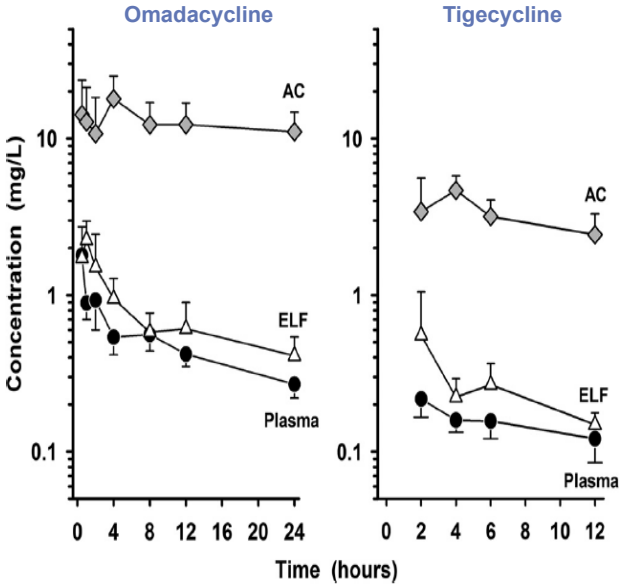
- 70,000 – 80,000 NTM cases in the U.S.
- 5-10% year-over-year increase in prevalence
- 5-year all-cause mortality 40%

- Paratek focused on subset of NTM patients (~6,000-8,000) with *Mycobacterium abscessus*
  - Currently, no approved antibiotic therapies

Radiographic Hallmarks



Pulmonary Pharmacokinetics of Omadacycline and Tigecycline



Gotfried MH, et al. Antimicrob Agents Chemother 2017; 61:e01135-17..

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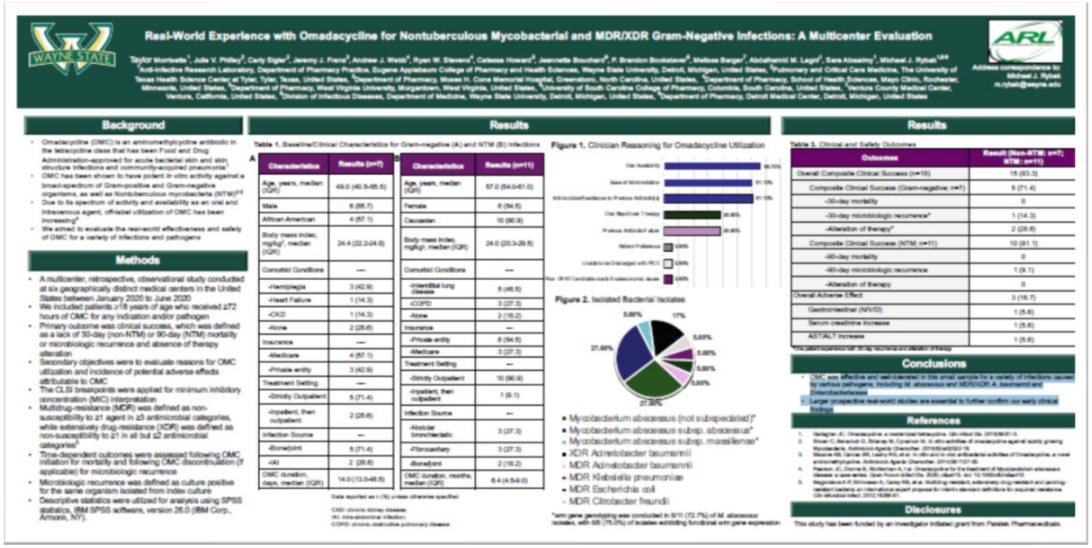
Robust Data Generation for NUZYRA

Real World data show potential in pulmonary Mycobacterium abscessus

- Case Studies on Mycobacterium abscessus
- Real-world study recently presented at ID Week
  - As noted by the authors, this small sample size showed NUZYRA to be effective and well-tolerated with some patients receiving therapy for a mean of 6.4 months with one patient treated with NUZYRA for over 20 months.
- Brigham and Women's case study on 4 patients with mean 166 days of therapy highlighting the potential of NUZYRA in pulmonary Mycobacterium abscessus
- These data continue to reinforce the need for additional studies to further evaluate these encouraging clinical findings



Omadacycline for the Treatment of *Mycobacterium abscessus* Disease: A Case Series

Jeffrey C. Pearson PharmD[1,2], Brandon Dionne PharmD[1,3], Aaron Richterman MD[2], Samuel J. Vidal

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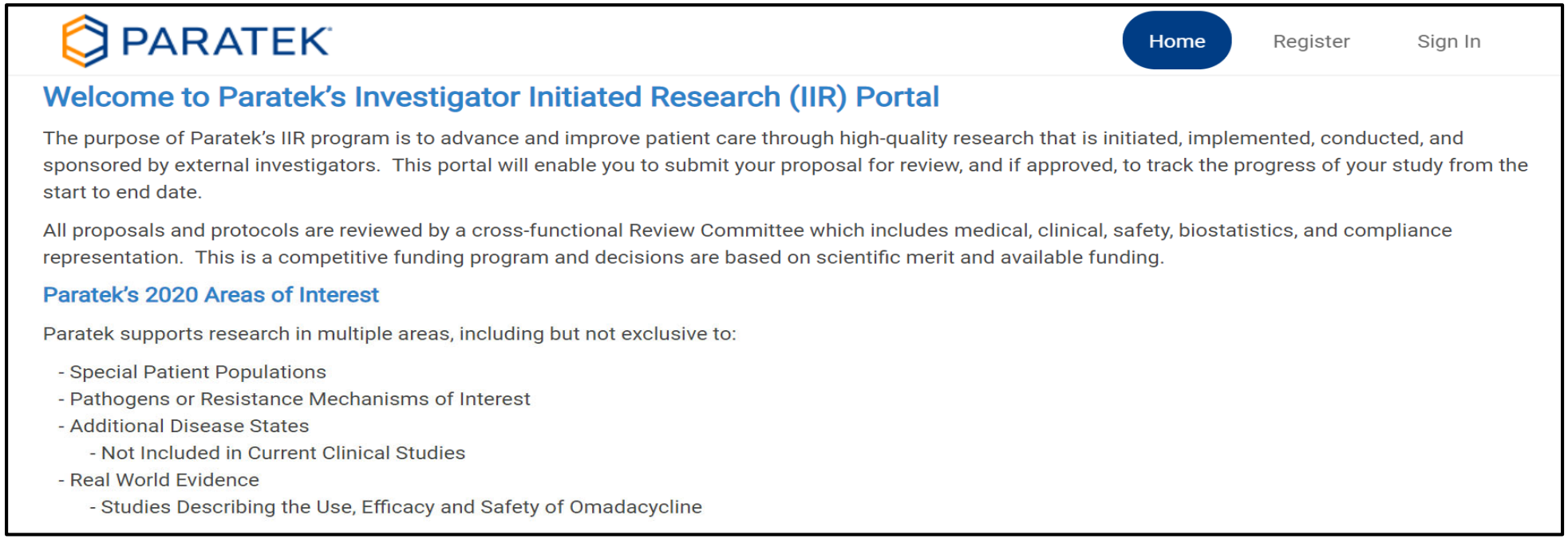
Paratek's Commitment to Scientific Exchange
Robust Data Generation Underway for NUZYRA



Over 20 publications in process
to address the use of NUZYRA in special pathogens & populations

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Q&A

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Closing Remarks

Evan Loh, M.D.

Chief Executive Officer

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Paratek is Well-Positioned for Near-term and Long-term Growth

Focused on Disciplined Execution + New Value Creation

NUZYRA® 100mg for injection & 150mg tablets

Near-term Execution

- Advance NUZYRA® U.S. Launch
- Capitalize on Project BioShield Opportunity
- Disciplined Operating Expense Management

Future Value Creation

- NUZYRA in Nontuberculous Mycobacteria or "NTM"
- Oral-only dosing regimen for NUZYRA in CABP
- Product / Pipeline Expansion

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