PARATEK®

First Quarter 2020

Financial Results & Corporate Update

May 11, 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

First Quarter 2020 Earnings Call Agenda

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

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

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

Pipeline and 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, 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 BARDA exercising full contract line items for procurement and PMR reimbursement, our anticipated cash runway, our operating expenses, our SEYSARA royalty-backed loan funded on May 1, 2019, the progression of our commercial roll out for 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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First 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

First Quarter 2020
Financial Highlights

- Net Revenue = **$7.9 million** primarily driven by the launch of NUZYRA®
  - NUZYRA net revenue = **$7.3 million** (**increase of ~35%** versus 4Q 2019)
  - Driven by increases in demand
- Other revenue = **$0.6 million**
  - Government contract service revenue from BARDA = $0.3 million
  - Collaboration and royalty revenue = $0.3 million
- As of March 31, 2020, Paratek had **$194.8 million in cash, cash equivalents and marketable securities**.
  - Expected cash runway through the end of 2023 with a pathway to cash flow break even

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BARDA BioShield Contract

A Unique Public-Private Partnership with Paratek

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NUZYRA™
(omadacycline)

- Biothreat agents may be resistant to antibiotics already in Strategic National Stockpile (SNS)
- Emerging antibiotic resistance may complicate a response to any public health emergency
- Adding to SNS novel antibiotics that overcome resistance enhances national security, serves as additional market

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New Drug Application (NDA) Submission of Omadacycline in China

Priority Review Granted by the National Medical Products Administration

- Zai Lab announced **priority review granted** by NMPA **in May 2020**
  - Seeking approval for the treatment of CABP and ABSSSI

- Paratek is entitled to receive:
  - **Milestone payment = $6 million** upon regulatory approval (anticipated in the first half of 2021)
  - **Tiered royalties at low double digit to mid-teen percentages** on net sales of NUZYRA in the greater China region

Condensed Consolidated Statements of Operations (unaudited)
(in thousands, except loss per share data)

Condensed Consolidated Statements of Operations
(unaudited)
(in thousands, except loss per share data)

	Three Months Ended March 31,	
	2020	2019
Product revenue, net	$ 7,303	$ 1,347
Government contract service revenue	337	—
Collaboration and royalty revenue	280	251
Net revenue	$ 7,920	$ 1,598
Expenses:		
Cost of product revenue	1,471	206
Research and development	6,389	11,392
Selling, general and administrative	23,638	23,316
Total operating expenses	31,498	34,914
Loss from operations	(23,578)	(33,316)
Other income and expenses:		
Interest income	705	946
Interest expense	(4,826)	(3,226)
Other gains (losses), net	82	(14)
Net loss	$ (27,617)	$ (35,610)
Other comprehensive loss		
Unrealized gain on available-for-sale securities, net of tax	397	200
Comprehensive loss	$ (27,220)	$ (35,410)
Basic and diluted net loss per common share	$ (0.66)	$ (1.10)
Weighted average common stock outstanding		
Basic and diluted	41,641,203	32,334,563

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Full Year 2020 Financial Guidance

	Guidance
NUZYRA U.S. Net Product Revenue	~$66M
Government Contract Service Revenue & Royalty and Collaboration Revenue	$9M to $14M
2020 Total Revenue	**$75M to $80M**
R&D and SG&A expense	**~$140M**

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Balance Sheet Highlights and Cash Runway Guidance

as of March 31, 2020

Key Metrics (unaudited)	03/31/20 balance
Total Cash, Cash Equivalents, and Marketable Securities	**$194.8 million**
Long-term Debt Obligation[3]	$240.2 million
Basic Shares Outstanding	42,374,026
Total Potentially Dilutive Securities[1]	19,034,357

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 related to Project BioShield contract. 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 under its existing terms.
3. Includes $30.6 million of debt secured by and repaid based upon royalties on U.S. SEYSARA sales.

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First Quarter 2020

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 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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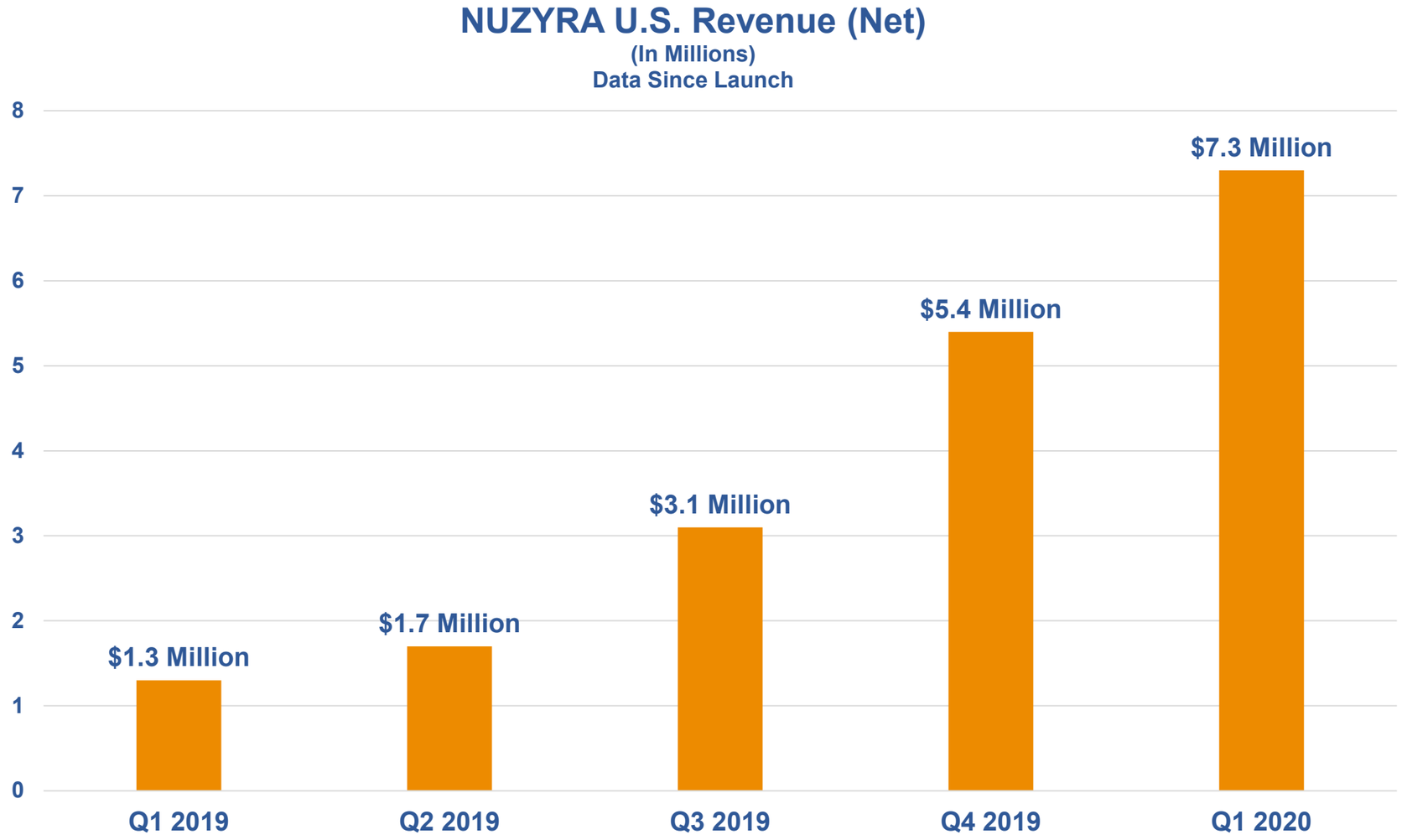
NUZYRA U.S. Launch Underway

Generated $7.3 Million in Net Revenue in Q1-2020



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

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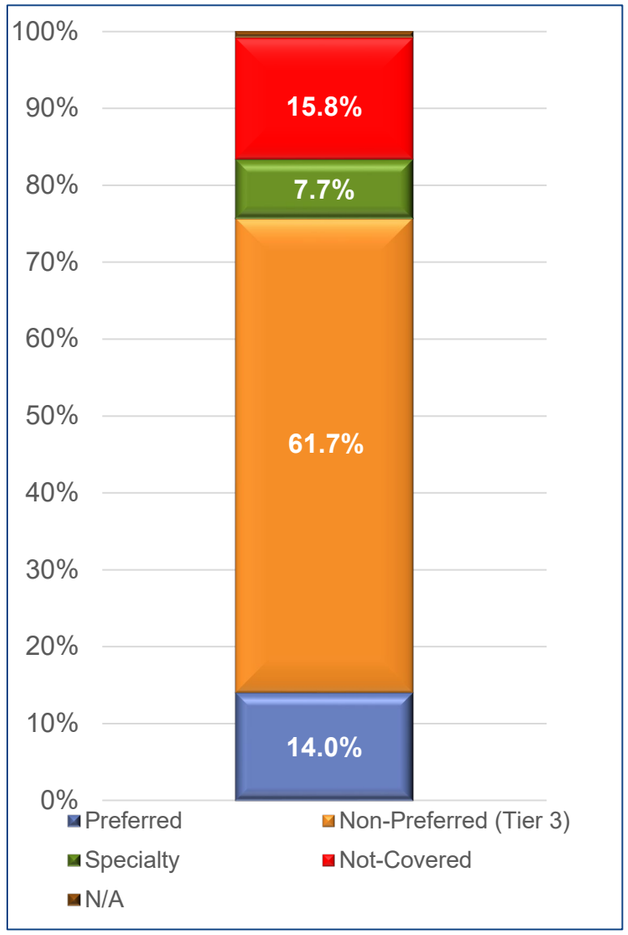
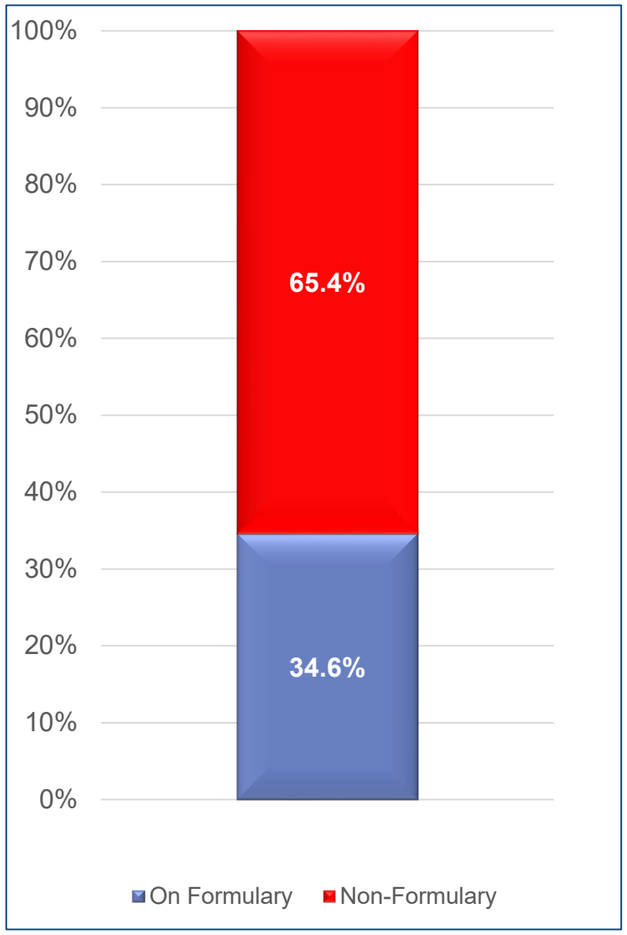
Strong NUZYRA Payer Coverage

As of May 1, 2020

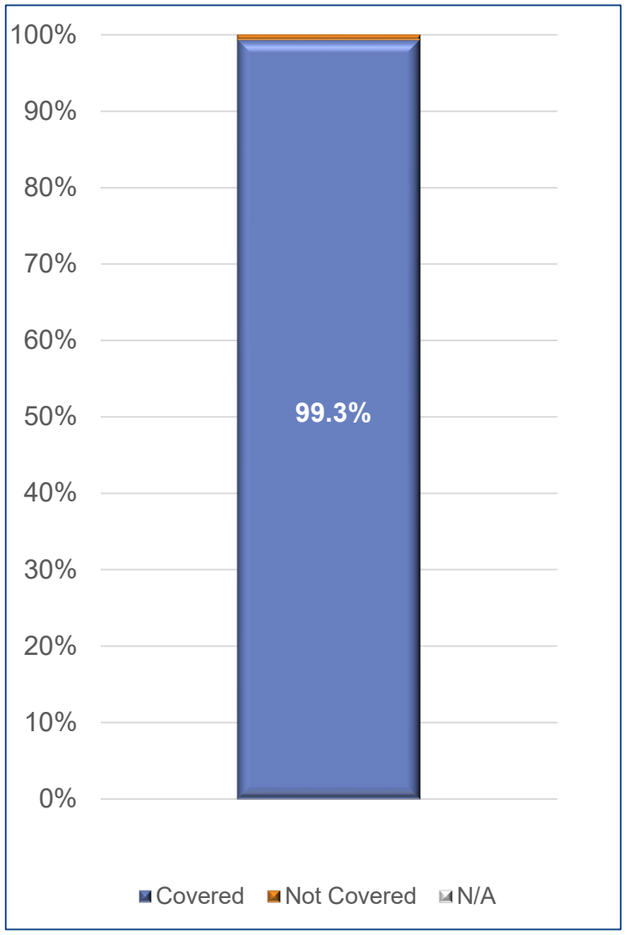
Commercial



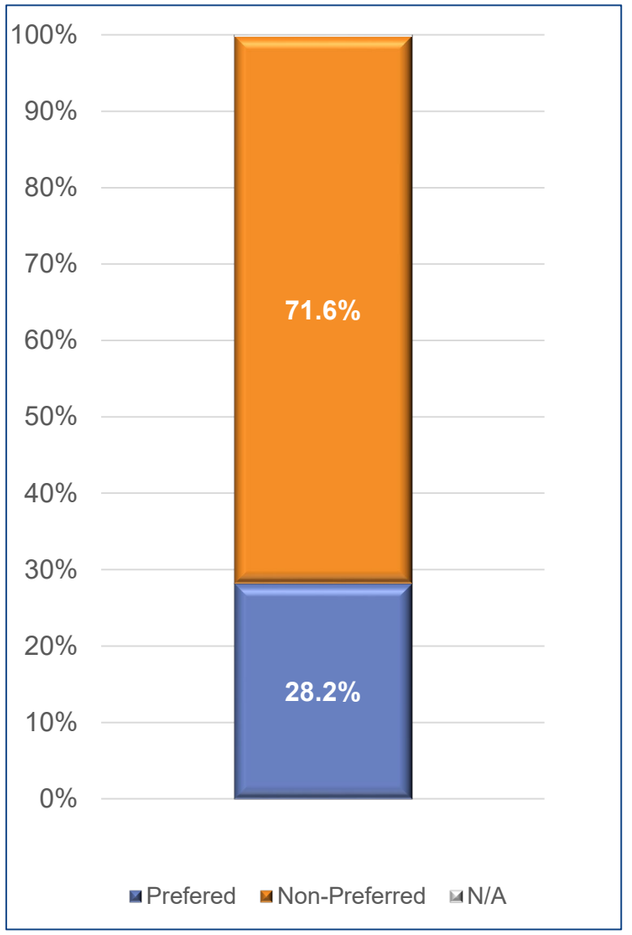
Medicare



Fee For Service (State Medicaid)



Managed Medicaid



Source: DRG Fingertip Formulary Analytics

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Pipeline and Future Value Drivers

Randy Brenner
Chief Development & Regulatory Officer

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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
- Paratek 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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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	**Q2 2020**	**~$38M**	Part of base award; **On track**
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

	Research	Preclinical	Phase 1	Phase 2	Phase 3	Registration	Marketed in the U.S.	Commercial Rights
NUZYRA® (omadacycline) 100mg for injection & 150mg tablets	ABSSSI (IV & Oral) – QIDP ✓							PARATEK®*
	ABSSSI (Oral-only) – QIDP ✓							
	CABP (IV & Oral) – QIDP ✓							
	CABP PK Study for Oral-only Labelling							
	Biodefense Pathogens (Anthrax)		*FDA Animal Rule Applies*					
SEYSARA® (sarecycline)	Inflammatory Acne (Acne Vulgaris) ✓							(U.S.+) Almirall; (ex-U.S.) PARATEK®

*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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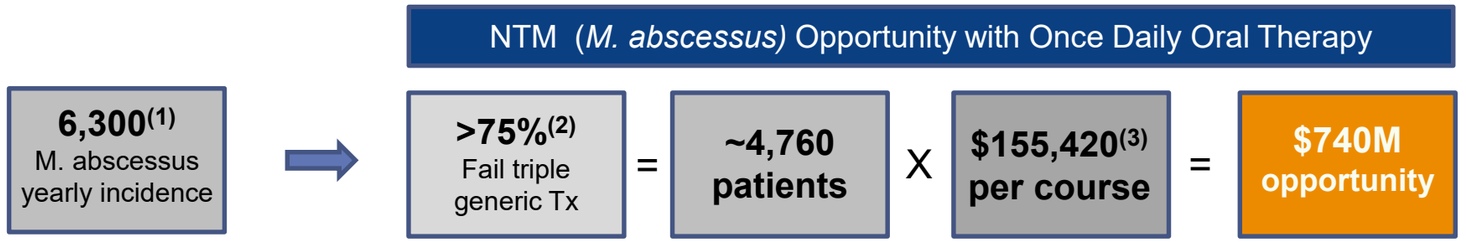
Non-Tuberculous Mycobacteria (*M. abscessus*)

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*)

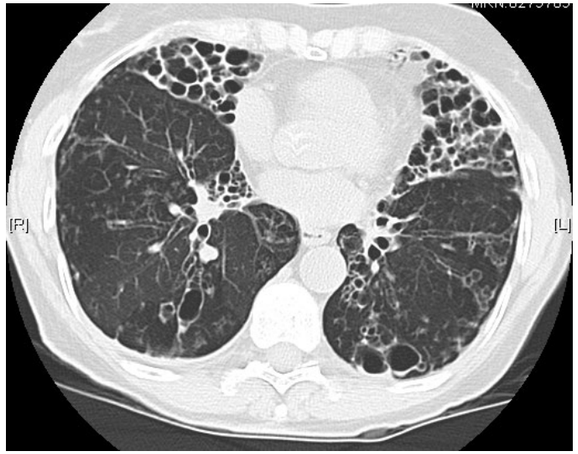
Potential Opportunity with Omadacycline

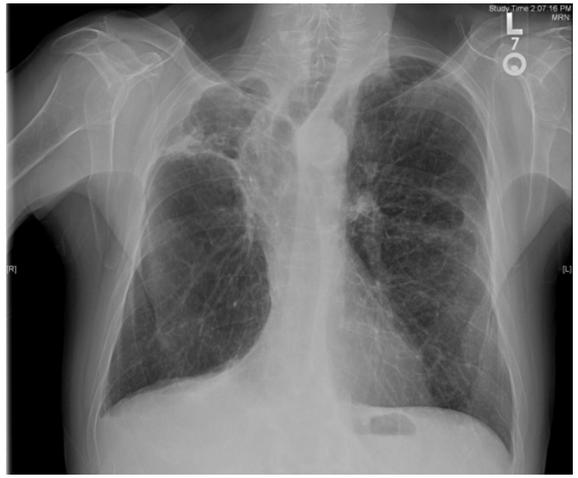
Prevalence of All NTM

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

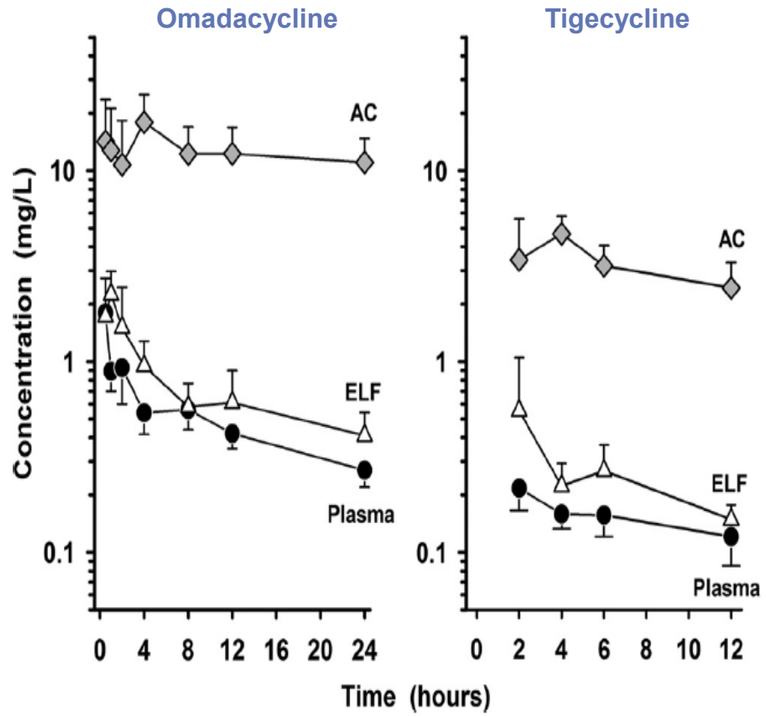
- Paratek focused on subset of NTM patients (~6,000-8,000) with *Mycobacterium abscessus*
  - Currently, no approved antibiotic therapies

Radiographic Hallmarks





Pulmonary Pharmacokinetics of Omadacycline and Tigecycline



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

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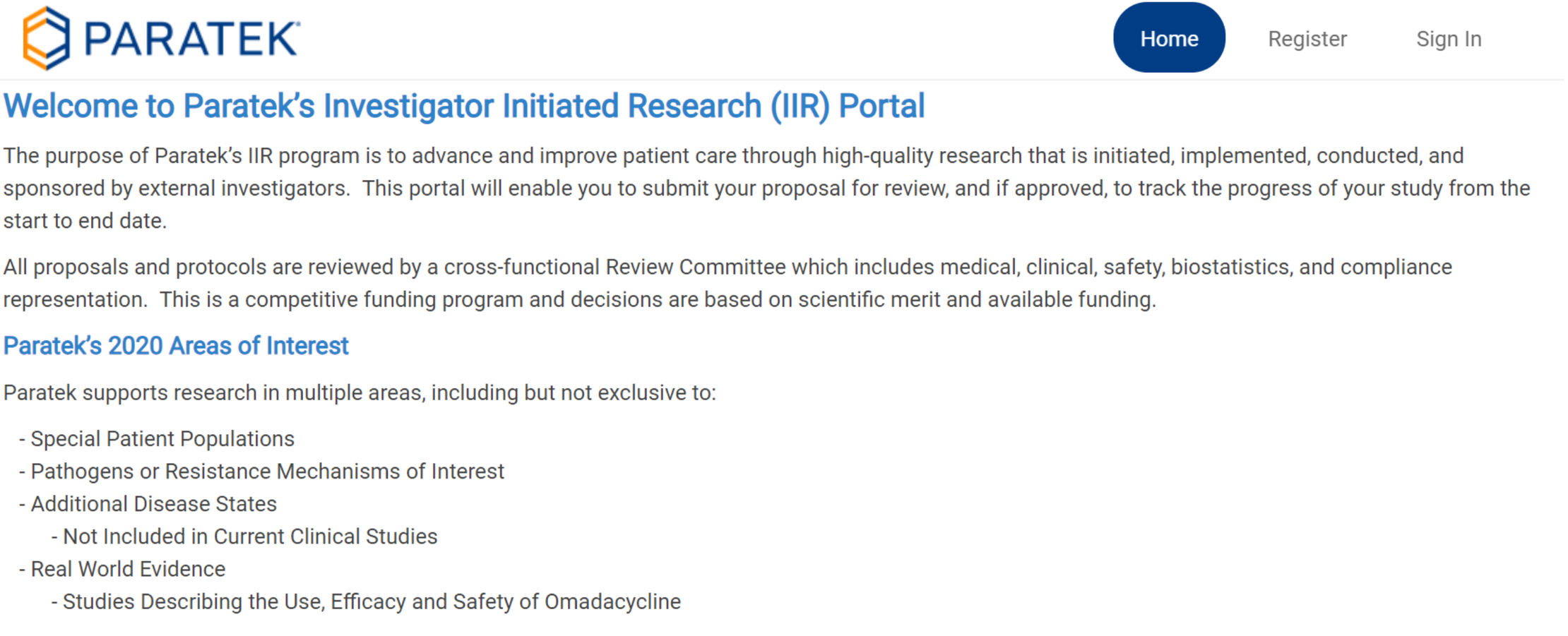
Robust Data Generation Underway for NUZYRA



30 publications in process to address the use of NUZYRA in special populations

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30th European Congress of Clinical Microbiology & Infectious Diseases (ECCMID 2020)

ECCMID

ESCMID

- Presented **four NUZYRA clinical and microbiology presentations** in the virtual-congress abstract book
- Continued to **highlight the efficacy and safety profile of NUZYRA**, adding to the growing body of evidence of **NUZYRA's utility against life-threatening infections**

Accepted Poster Titles:

- **Self-reported health status in ambulatory acute bacterial skin and skin structure infection patients who inject drugs, who received oral therapy with omadacycline or linezolid**
- **Predicted risk and observed occurrence of *Clostridioides difficile* infection in patients with community-acquired bacterial pneumonia treated with omadacycline or moxifloxacin**
- **Epidemiology of *Clostridioides difficile* infections among hospitalized community-acquired pneumonia patients who received empiric treatment with ceftriaxone plus a macrolide**
- **Activity of Omadacycline and Comparator Agents against Bacterial Pathogens from the United States by Infection Type (2019)**

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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 Future Growth

Focused on 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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