Recognizing the serious threat of bacterial infections, Paratek is dedicated to providing solutions that enable positive outcomes and lead to better patient stories.
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Certain statements in this presentation, including responses to questions, contain or may contain “forward-looking statements” within the meaning of the Private Securities Litigation Reform Act of 1995. Examples of such statements include, but are not limited to, statements about our strategy, future operations, short and long term product revenue guidance, funding projections, prospects, including plans, objectives of management, availability of data from our clinical studies, potential use of our product candidates, including Omadacycline and Sarecycline, the market acceptance of our product candidates, the strength of, and protection offered by, our intellectual property position, the potential clinical risks and efficacy of, and market opportunities for, our product candidates, the timing and stability of our supply chain, the timing of clinical development of, and regulatory approval for, our product candidates, and the nature and timing of our collaboration agreements with respect to our product candidates. The words “anticipate,” “estimate,” “expect,” “potential,” “will,” “project” and similar terms and phrases are used to identify forward-looking statements. These statements are based on current information and belief and are not guarantees of future performance. Our ability to predict results, financial or otherwise, or the actual effect of future plans or strategies, is inherently uncertain and actual results may differ from those predicted depending on a variety of factors. Our operations involve risks and uncertainties, many of which are outside our control, and any one of which, or a combination of which, could materially affect our results of operations or whether the forward-looking statements ultimately prove to be correct. Except as required by law, we undertake no obligation to publicly update any forward-looking statement, whether as a result of new information, future events or otherwise. Among the risks and uncertainties that could cause actual results to differ materially from those indicated by such forward-looking statements include: delays in clinical trials or unexpected results; the risk that data to date and trends may not be predictive of future results; the failure of collaborators to perform obligations under our collaboration agreements; our failure to obtain regulatory approval for our product candidates; if we obtain regulatory approval for our product candidates, the risk that the terms of such approval may limit how we manufacture and market our product candidates; delays in our supply chain, delays in undertaking or completing clinical trials; our products not gaining the anticipated acceptance in the marketplace or acceptance being delayed; our products not receiving reimbursement from healthcare payors; the effects of competition; our inability to protect our intellectual property and proprietary technology through patents and other means; the need for substantial additional funding to complete the development and commercialization of our product candidates; and the other risks described in the “Risk Factors” section and elsewhere in our Annual Report on Form 10-Q for the quarter ending September 30, 2018, our Form 10-K for the year ended December 31, 2017, and our other filings with the SEC.

PARATEK® and the Hexagon Logo are registered trademarks of Paratek Pharmaceuticals, Inc. NUZYRA® and its design logo are trademarks of Paratek Pharmaceuticals, Inc.
Well-Positioned for Future Growth
Focused on Execution + New Value Creation

NUZYRA® 100mg for injection & 150mg tablets

Near-term Execution

NUZYRA® U.S. Launch: “Hospital-to-Home”
Disciplined Operating Expense Management
Non-Dilutive Sources of Capital

Future Value Creation

NUZYRA® Life-cycle Opportunities
Bio-Defense
Product / Pipeline Expansion
Paratek Investment Highlights

**NUZYRA®: Potential Blockbuster Antibiotic in Both Hospital and Community Settings**

**Potential Blockbuster Antibiotic with NUZYRA®**
- 1st FDA approved and launched *once-daily oral & IV antibiotic* to treat both CABP and ABSSSI in nearly 20 years
- > $9 Billion Potential Addressable U.S. Market*

**Clear Registration Path: U.S. FDA and EU EMA**
- NUZYRA® U.S. FDA-approved in October 2018
- Filed in the EU in October 2018: EMA Decision Projected 2H 2019

**Additional Pipeline Potential**
- UTI Ph2 Studies Underway: Data Expected in Q4 2019
- Biodefense opportunity: Tx & Prophylaxis in Plague and Anthrax
- Life-cycle opportunities: Oral-Only CABP, Prostatitis, Rickettsial Disease

**Capital Efficient Commercial Model**
- Significant Value Proposition = Hospitalization Minimization
- Hospital Promotion with no other Branded Once-Daily Broad-spectrum Oral + IV Competitors

**Non-dilutive Funding Options**
- Omadacycline: Ex-U.S. Commercial Rights (Except Greater China)
- Saracycline: Ex-U.S. Rights (PRTK)

(*) Paratek estimates based on 2015 AMR data current treatment failure rates and a Zyvox 2015 pricing analogue
## Paratek Pipeline
### Compelling Life-cycle Opportunities

<table>
<thead>
<tr>
<th>Product</th>
<th>Phase 1</th>
<th>Phase 2</th>
<th>Phase 3</th>
<th>Registration</th>
<th>Marketed*</th>
<th>Commercial Rights</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>NUZYRA®</strong></td>
<td>ABSSSI (IV &amp; Oral) – QIDP + SPA</td>
<td>ABSSSI (Oral-only) – QIDP</td>
<td>CABP (IV &amp; Oral) – QIDP + SPA</td>
<td></td>
<td></td>
<td>(Global*)</td>
</tr>
<tr>
<td>(omadacyclline)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>PARATEK</td>
</tr>
<tr>
<td>100mg for injection &amp; 150mg tablets</td>
<td>PK Study in CABP for Oral-only Label</td>
<td>uUTI (Oral-only) – QIDP</td>
<td>Acute Pyelonephritis# (IV &amp; Oral) – QIDP</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>FDA Animal Rule Applies</td>
</tr>
<tr>
<td><strong>SEYSARA®</strong></td>
<td>Inflammatory Acne (Acne Vulgaris)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(U.S.)</td>
</tr>
<tr>
<td>(sarecycline)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Almirall</td>
</tr>
</tbody>
</table>

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

# Acute pyelonephritis is a subset of cUTI; Acute pyelonephritis is a common subset of complicated UTI’s where the kidneys become infected

+Marketed in the US only
## Strong Track Record Delivering on Milestones

<table>
<thead>
<tr>
<th>Omadacycline Events</th>
<th>Timing</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABSSSI Phase 3 data: IV &amp; oral</td>
<td>Q2 2016</td>
<td>Positive Phase 3 data</td>
</tr>
<tr>
<td>UTI Phase 1b data: PK/PD</td>
<td>Q4 2016</td>
<td>Proof-of-principle</td>
</tr>
<tr>
<td>CABP Phase 3 data: IV &amp; oral</td>
<td>Q2 2017</td>
<td>Positive Phase 3 data</td>
</tr>
<tr>
<td>ABSSSI Phase 3 data: Oral-only</td>
<td>Q3 2017</td>
<td>Positive Phase 3 data</td>
</tr>
<tr>
<td>NDA approval</td>
<td>Oct 2018</td>
<td>Approved</td>
</tr>
<tr>
<td><strong>U.S. Launch</strong></td>
<td><strong>Feb 2019</strong></td>
<td><strong>Launched</strong></td>
</tr>
<tr>
<td>Response to Project BioShield RFP</td>
<td>June 2019</td>
<td>Submitted</td>
</tr>
<tr>
<td>UTI Phase 2 data: uUTI &amp; Acute Pyelonephritis</td>
<td>Q4 2019</td>
<td></td>
</tr>
<tr>
<td>Projected EMA Decision</td>
<td>H2 2019</td>
<td></td>
</tr>
<tr>
<td>Oral-only Indication in CABP</td>
<td>H2 2020</td>
<td></td>
</tr>
</tbody>
</table>
NUZYRA U.S. Performance

NUZYRA Net U.S. Revenues

- Launched in the U.S. in February 2019
- Accounting for inventory, NUZYRA gross revenue demand increased from approximately $250 thousand in Q1 2019 to approximately $1.7 million in Q2 2019
- Achieved institutional access in ~60% of the 400 plus targeted hospitals as of Q2 2019
- Through Q2 19, over 50% of commercial lives in the U.S. now have access to NUZYRA and we have started to observe strong improvements with the government payers such that we have achieved close to 50% access in Medicaid
- Aided awareness within our target prescribers has increased from 27% at launch to greater than 50% in Q2 2019
- NUZYRA granted pass-through status and received a C-code for hospital out-patient setting (July 1, 2019) and J-code for all settings of care for the IV formulation (expected October 1, 2019)
Highlights

Publication affirmation of the potential positive clinical impact NUZYRA can play in supporting the battle against the growing health challenge of antibiotic resistance

Once-daily oral and IV NUZYRA safe and effective in adults with pneumonia and skin infections, demonstrating clinical activity against relevant pneumonia- and skin-associated drug resistant bacteria
NUZYRA® Commercial Opportunity

Potential Blockbuster Antibiotic in Both Hospital and Community Settings
NUZYRA®: A Modernized Tetracycline
Restoring Tetracycline Efficacy with Convenience Attributes

7-Position Modification:
Overcomes Efflux Pump

• T₁/₂ = 16 Hours
• Clinical and in-vitro activity against select: Gram-positives, Gram-negatives, Atypical, Drug-resistant strains
• Not metabolized
• No P450 Interactions
• Biliary and renal excretion

9-Position Modification:
Overcomes Ribosominal Protection
NUZYRA®: A Modernized Tetracycline
Clinically Meaningful Attributes Drive Trial to Adoption

- Once-daily IV & Oral
- High & durable clinical efficacy
- No dosage modifications or monitoring in hepatic or renal impairment
- No QTc prolongation
- Low potential for DDIs
- No cases of *C. diff* reported in completed clinical program

- HCP confidence in treating patients
  - Efficacy
  - Safety
  - Tolerability

- Efficacy from hospital to home
  - Helps minimize hospitalization
**Important Demography:**

- Together with influenza, CABP is currently the eighth leading cause of death in the U.S.\(^2\)
  - All cause 30-day mortality in hospitalized patients exceeds 10\%\(^3-5\)

- Hospitalization Rates in CABP are increased in older populations and in populations with certain co-morbid conditions, including COPD, CHF, and diabetes\(^6\)

---

**CABP Pathogens\(^1\)**

- **S. pneumoniae**
- **S. aureus**
- **Legionella pneumophilia**
- **Mycoplasma pneumonia**
- **Enterobacteriaceae**
- **H. influenzae**
- **Other**

---

NUZYRA® Opportunities Beyond Current CABP Treatment Options:
Addressing Limited Formulations with Safety Concerns

IDSA/ATS CABP Guideline:\(^1\)

Inpatient Rx
Non-ICU\(^8\)

Beta-lactam + Macrolide  OR  Respiratory Fluoroquinolone

NUZYRA as First-Line Therapy:
Monotherapy, IV + Oral, when β-lactam/Macrolide or Quinolones are not options

**Significant Unmet Need in Skin Infections**

**Important Demography:**

- Incidence of skin infections requiring hospitalization has substantially increased since the 2000’s\(^1,3\)
  
- \(\sim 870,000\) admissions, \(6.3M\) office visits, and \(3.4M\) emergency department visits annually\(^4\)

- Underlying co-morbidities including diabetes and vascular disease can complicate management and antibiotic selection\(^5\)

**Common Skin Pathogens\(^2\)**

- MRSA
- MSSA
- Beta-hemolytic Streptococci
- Other Streptococci
- Other Gram positive
- Gram negative
- Anaerobe

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**NUZYRA® Opportunities Beyond Today’s Skin Treatment Options: Addressing Limited Formulations with Safety Concerns**

### IDSA SSTI Guideline:

| Inpatient Rx | Vancomycin +/- Pip/Tazo | OR | Zvox +/- Pip/Tazo |

**NUZYRA as First-Line Therapy:**

Monotherapy, IV + Oral, when Vancomycin/Zyvox +/- Pip/Tazo are not options

---

SSTI: Skin and Soft Tissue Infection, pip/tazo: piperacillin/tazobactam

NUZYRA Attributes Provide A Modern-Day Solution
- 95% of physicians surveyed and aware of NUZYRA have stated an intent to use (as of Q2 2019)

Source: Paratek Sponsored Market Research
Success Begins in the Hospital with Specialists
“Go-Home” Strategy to Minimize Hospital Stay

Launch and Beyond
- IDs
- ER HCPs
- Hospitalists
- Pulmonologists
- PharmD IDs
- Allied HCPs

Year 2 and Beyond
- Internal Medicine
- Primary Care Provider
- NPs, PAs
- Urgent Care
Focused Launch Targeting Early Adopters

- Launch in **February 2019** with **40 Sales Specialists**

- **Focusing on ‘Early Adopting’** HCPs in ‘high value’ institutions (~400), will drive institutional access

- **By end of 2019**, Plan to Add **~20 additional Sales Specialists** and **10 additional Customer Facing Specialists**
  - Will incorporate the learnings from the early launch to gauge the cadence and level of additional expansion

- **Inside Sales Team will supplement** efforts of Sales Specialists and broaden outreach

**Physician Segments**

- **Early Adopter**
  - Focused on broad spectrum and efficacy
  - Convenient features with IV to oral transition

- **Late Adopter**
  - Wait for Early Adopters to trial and use
  - Guideline and protocol driven
Field Force Has Two Simultaneous Objectives

**Institutional Access + Demand Generation**

**Institutional Access** + **Demand Generation** = **Adoption**

**Formulary/Protocols**
- Specialty Access & Buying

**Influencers:**
- IDs
- PharmD IDs
- Pharmacy Directors
- Microbiologists

**Trial & Usage**

**Prescribers:**
- IDs
- ER
- Hospitalists
- Pulmonologists

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PARATEK
NUZYRA®: As First-line Therapy
Targeted Patient Profiles

CABP
- Alternative to fluoroquinolone + β-lactam allergic
- Prior C. difficile infection

ABSSSI
- Suspected polymicrobial infection + β-lactam / sulfa allergic
- Renal insufficiency + SSRI
Ensure Seamless Transition from Hospital to Home
Continuity of Care Providing Access to Oral NUZYRA

**Continuity of Care**
- Prevent gap in care
- Sample / Bridge Program (as needed)

**Reimbursement Support Services**

**Affordability Program**

**Distribution Network**
- IV Formulation
  - National & Regional Distributors
- Oral Formulation
  - National & Regional Pharmacies
  - Program allows for oral formulation pick-up at retail locations or home delivery

**HUB Services**
- Enables effective discharge process
Early Indicators to Track Performance

**Covered Lives**
- 3 months Post-Launch
  - 33% of covered lives under contract
- 12 months Post-Launch
  - 66% of covered lives under contract

**Institutional Access**
- 12 months Post-Launch
  - 70% of 800 targeted institutions
Potential $3.9 Billion Addressable U.S. Hospital Market by 2028

ABSSSI Opportunity: 1st line treatment (Tx) failure, resistance suspected

- 3,300K (1) Hospitalized ABSSSI
- ~12% (1) Fail broad sp + MRSA cov
- ~400k patients
- $3,000 (4)

\[3,300K \times 0.12 \times 400k \times 3,000 = 1.2B\] opportunity

CABP Opportunity: 1st line Tx failure, resistance suspected

- 3,400K (1) Hospitalized CABP
- ~14% (2) Fail FQ or ceph+macrolide
- ~490k patients
- $3,000 (4)

\[3,400K \times 0.14 \times 490k \times 3,000 = 1.4B\] opportunity

UTI Opportunity: 1st line Tx failure (or repeated Tx), ESBL suspected

- 5,400K (1) Hospitalized UTI
- ~7% (3) Fail fluoroquinolone
- ~405k patients
- $3,150 (5)

\[5,400K \times 0.07 \times 405k \times 3,150 = 1.3B\] opportunity

---

(1) AMR data (2015): Of patients never receiving confirmed pathogen and getting potential MRSA coverage, 30%+ switch therapies (i.e., to another empiric therapy)

(2) Primary market research (est 18% of hospitalized CABP patients & 16.5% of community CABP patients are "high-risk" and suspected/confirmed to have a resistant pathogen)

(3) DRG Current Treatment: Gram Negative Infections (ID's est ~20% failure rate for fluoroquinolones)

(4) Cost per course based on health outcome analysis, 10 day course of therapy and cost of branded Zyvox therapy as an analogue

(5) Cost per course based on mid point for levofloxacin course in UTI, a 450mg OMC daily dose, and 50% price premium to branded oral Zyvox as an analogue

Paratek estimates based on 2015 AMR data current treatment failure rates and a Zyvox 2015 pricing analogue
Potential $5.4 Billion Addressable U.S. Community Market by 2028

ABSSSI Opportunity: Initial treatment (Tx) failure, resistance suspected

14,400K(1)
Community ABSSSI

~5%(1)
Fail broad sp +
MRSA cov

~735k
cases

X

$2,100(4)

= $1.5B opportunity

CABP Opportunity: Fluoroquinolone failure, resistance suspected

9,370K(1)
Community CABP

~6%(2)
Fail fluoroquinolone

~510k
cases

X

$2,100(4)

= $1.1B opportunity

UTI Opportunity: Initial Tx failure (or repeated Tx), ESBL suspected

33,000K(1)
Community UTI

~3%(3)
Fail fluoroquinolone

~890k
cases

X

$3,150(5)

= $2.8B opportunity

---

(1) 20% est failures (based on hospital patterns) of first line MRSA treatment
(2) Primary market research (est 18% of hospitalized CABP patients & 16.5% of community CABP patients are "high-risk" and suspected/confirmed to have a resistant pathogen)
(3) Primary market research (est 1-2% of community patients sent to ED/hospital due to resistant infection not treatable with current oral AB; estimated to grow to 2.7% by 2028
(4) Cost per course based on health outcome analysis, 7 day course of therapy and cost of branded Zyvox therapy as an analogue
(5) Cost per course based on mid point for levofloxacin course in UTI, a 450mg OMC daily dose, and 50% price premium to branded oral Zyvox as an analogue

Paratek estimates based on 2015 AMR data current treatment failure rates and a Zyvox 2015 pricing analogue
## NUZYRA®: Well Positioned for Blockbuster Potential

<table>
<thead>
<tr>
<th>Antibiotic</th>
<th>Broad Spectrum</th>
<th>Big 3(^{(1)}) Indications</th>
<th>Oral Frequency</th>
<th>2010 Sales(^{(3,4)})</th>
</tr>
</thead>
<tbody>
<tr>
<td>Levofloxacin</td>
<td>✓</td>
<td>3</td>
<td>Once Daily</td>
<td>$3.4B</td>
</tr>
<tr>
<td>Co-Amoxy clav</td>
<td>✓</td>
<td>3</td>
<td>Twice Daily</td>
<td>$2.8B</td>
</tr>
<tr>
<td>Azithromycin(^{(2)})</td>
<td></td>
<td>2</td>
<td>Once Daily</td>
<td>$1.8B</td>
</tr>
<tr>
<td>Ciprofloxacin</td>
<td>✓</td>
<td>3</td>
<td>Twice Daily</td>
<td>$1.4B</td>
</tr>
<tr>
<td>Clarithromycin(^{(2)})</td>
<td></td>
<td>2</td>
<td>Twice Daily</td>
<td>$1.4B</td>
</tr>
<tr>
<td>NUZYRA(^*)</td>
<td>✓</td>
<td>2(^*)</td>
<td>Once Daily</td>
<td>N/A</td>
</tr>
</tbody>
</table>

*Phase 2 studies in UTI currently underway; Topline data expected in H2 2019

>65% of Revenue was Generated by the Oral Formulations

\(^{(1)}\) Skin, Respiratory, UTI  
\(^{(2)}\) Both Azithromycin and Clarithromycin did not have UTI claim  
\(^{(3)}\) IMS global sales data in 2010  
\(^{(4)}\) Major patents had expired for all products by 2010 except Levofloxacin where 2010 was peak year sales
History Can Repeat Itself…

Today: Slower starts…But with the Right Attributes, a Strong Finish

Recent AB Launches: antibiotics launched since 2010 that have at least 36 months of data - Avycaz, Dalvance, Orbaactiv, Sivextro, Teflaro, & Zerbaxa (does not include Dificid or new formulations/line extensions)

*MAT = 12-month rolling total

Source: NSP Data, NSP Gross Sales MAT* $M
Balance Sheet & IP Protection
### Strong Balance Sheet

#### Key Metrics (unaudited) 6/30/19 balance

<table>
<thead>
<tr>
<th><strong>Total Cash, Cash Equivalents, and Marketable Securities</strong></th>
<th><strong>$252.3 million</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Long-term Debt Obligation</strong></td>
<td><strong>$260.1 million</strong></td>
</tr>
<tr>
<td><strong>Basic Shares Outstanding</strong></td>
<td><strong>32,446,202</strong></td>
</tr>
<tr>
<td><strong>Total Potentially Dilutive Securities</strong>*</td>
<td><strong>17,506,218</strong></td>
</tr>
</tbody>
</table>

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**Cash runway projected beyond Q1 2021**

---

*Includes common stock issuable under the April 2018 convertible debt offering, options, restricted share units, warrants, and for our ESPP*
**NUZYRA® IP Protection and Market Exclusivity**

*GAIN Act Ensures 10 Yrs.’ Market Exclusivity and Patent Term Extension protection to at least 2030*

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**IP Protection:**
- **828 Patent Issued**
- **740 Patent Issued**
- **Key Composition of Matter Patent (U.S. 7,553,828)**
  - Expires June 2023
- **Key Method of Use Patent (U.S. 9,265,740)**
  - Expires March 2029

**Regulatory Protection:**
- U.S. Data Exclusivity: Hatch Waxman - 5-years
- GAIN Act Extension - 5-years

**Follow-On IP Protection:**
Issued Patents and Pending Applications Covering Salts, Polymorphs, Formulations, Methods of Use, Methods of Manufacture, Modes of Administration, and Dosage Regimens

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