Corporate Presentation
April 2018
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### Paratek Investment Highlights

**Omadacycline: Potential Blockbuster Antibiotic in Both Hospital and Community Settings**

#### Potential Blockbuster Antibiotic with Omadacycline
- If Approved, 1st New, Once-daily, Multi-indication, Oral Antibiotic in > 10Yrs
- > $9 Billion Potential Addressable Market in U.S. alone*

#### Modernized Tetracycline: A Promising Antibiotic Profile
- Positive Ph3 Data in Skin Infections (IV/Oral + Oral only)
- Positive Ph3 Data in Community Acquired Bacterial Pneumonia (IV/Oral)
- Established Safety Profile in > 1,900 subjects

#### Clear Registration Path: U.S. FDA and EU EMA
- SPA + QIDP + Fast Track in the US
- Under FDA review; Anticipated Approval October 2018
- Expect to File in the EU in H2 2018

#### Additional Pipeline Potential
- UTI Ph2 Study underway; Data Expected in 2019
- Biodefense opportunity: Tx & prophylaxis in plague and anthrax
- Life-cycle opportunities: Lyme Disease, prostatitis, Rickettsial Disease

#### Capital Efficient Commercial Model
- Significant Value Proposition = Hospitalization Minimization
- Hospital Promotion Without Branded Broad-spectrum IV + Oral Competitors

#### Non-dilutive Funding Options
- Omadacycline: Ex-U.S. Commercial Rights (except China)
- Sarecycline: Milestones + U.S. Royalties (Allergan); Ex-U.S. Rights (PRTK)

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* Paratek estimates based on 2015 AMR data current treatment failure rates and a Zyvox 2015 pricing analogue
Experienced Management Team

Michael F. Bigham
Chairman & CEO

Evan Loh, MD
President, COO & CMO
Led Tygacil Development

Doug Pagán
Chief Financial Officer

Adam Woodrow
Chief Commercial Officer
Led Tygacil Commercialization

William Haskel
General Counsel & Corporate Secretary
Omadacycline: A Modernized Tetracycline
First-in-Class Aminomethylcycline: Restoring Tetracycline Efficacy by Overcoming Resistance

7-Position Modification: Overcomes Efflux Pump

9-Position Modification: Overcomes Ribosomal Protection

No known metabolites
No CYP interactions identified
No anticipated monitoring
No dosage modifications or monitoring anticipated in hepatic or renal impairment
No hERG channel effects (TQTc\(^{(1)}\) study completed at 3x therapeutic exposures)
No known DDI effects identified
Low propensity to induce C. diff\(^{(2)}\)

\(^{(1)}\) Thorough QTc study
\(^{(2)}\) Wilcox ECCMID 2016
Two NDA-Ready Assets
U.S. FDA NDA Approvals Projected in Q4 2018

<table>
<thead>
<tr>
<th>Phase 1</th>
<th>Phase 2</th>
<th>Phase 3</th>
<th>Pre-Registration</th>
<th>NDA Filing</th>
<th>Commercial Rights</th>
</tr>
</thead>
<tbody>
<tr>
<td>Omadacycline</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ABSSSI (Oral &amp; IV) – QIDP + SPA</td>
<td>✔</td>
<td>✔</td>
<td></td>
<td></td>
<td>PARATEK (Global)</td>
</tr>
<tr>
<td>CABP (Oral &amp; IV) – QIDP + SPA</td>
<td>✔</td>
<td>✔</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ABSSSI (Oral only ) – QIDP</td>
<td>✔</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>UTI (Oral &amp; IV) – QIDP (cUTI / uUTI)</td>
<td></td>
<td>✔</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Biodefense Pathogens</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sarecycline</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inflammatory Acne (Acne Vulgaris)</td>
<td>✔</td>
<td></td>
<td></td>
<td></td>
<td>Allergan (U.S.)</td>
</tr>
</tbody>
</table>

Positive Efficacy Studies or NDA Filed

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

<table>
<thead>
<tr>
<th>Event</th>
<th>Timing</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABSSSI Phase 3 data: IV and 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 and 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>UTI Phase 2 initiation</td>
<td>Q4 2017</td>
<td>Enrolling</td>
</tr>
<tr>
<td>NDA submission</td>
<td>Q1 2018</td>
<td>Accepted</td>
</tr>
<tr>
<td>Projected NDA approval</td>
<td>Q4 2018</td>
<td>TBD</td>
</tr>
</tbody>
</table>

### Sarecycline Events<sup>1</sup>

<table>
<thead>
<tr>
<th>Event</th>
<th>Timing</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phase 3 efficacy studies</td>
<td>Q1 2017</td>
<td>Positive Phase 3 data</td>
</tr>
<tr>
<td>NDA (Allergan) submission</td>
<td>Oct 2017</td>
<td>Accepted</td>
</tr>
<tr>
<td>Projected NDA Approval</td>
<td>2H 2018</td>
<td>TBD</td>
</tr>
</tbody>
</table>

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1. Allergan licensed U.S. development & commercial rights
Omadacycline Commercial Opportunity

Potential Blockbuster Antibiotic in Both Hospital and Community Settings
Omadacycline Possesses a Multitude of Differentiated Attributes
No Generic Broad Spectrum IV-Oral Hospital Competitors

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Omadacycline&lt;sup&gt;(4)&lt;/sup&gt;</th>
<th>Quinolones&lt;sup&gt;(1,2,3)&lt;/sup&gt;</th>
<th>Cephalosporins&lt;sup&gt;(1,2,3)&lt;/sup&gt;</th>
<th>Oxazolidinones&lt;sup&gt;(1,2,3)&lt;/sup&gt;</th>
<th>Glycopeptides&lt;sup&gt;(1,2,3)&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>S. pneumoniae</em></td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>MDR <em>E. Coli</em>&lt;sup&gt;(5)&lt;/sup&gt;</td>
<td>✓</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
</tr>
<tr>
<td><em>Legionella species</em></td>
<td>✓</td>
<td>✓</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
</tr>
<tr>
<td><em>S. aureus (MRSA, MSSA)</em></td>
<td>✓</td>
<td>✗</td>
<td>✗</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Low <em>C. diff</em> Incidence</td>
<td>✓</td>
<td>✗</td>
<td>✗</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Limited Drug-Drug Interactions</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✗</td>
<td>✓</td>
</tr>
<tr>
<td>No Major Safety Considerations</td>
<td>✓</td>
<td>Tendon Rupture Neurotoxicity</td>
<td>✓</td>
<td>Serotonin syndrome Thrombocytopenia</td>
<td>Renal Toxicity Ototoxicity</td>
</tr>
<tr>
<td>Once Daily IV/Oral Dosing</td>
<td>✓</td>
<td>✓</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
</tr>
</tbody>
</table>

### Key Factors Enabling Omadacycline Formulary Endorsement

*Multiple Indications with a Bioequivalent (1) IV and Oral Formulation*

<table>
<thead>
<tr>
<th>Source</th>
<th>Omadacycline</th>
<th>Ceftaroline</th>
<th>Delafloxacin</th>
<th>Tedizolid</th>
<th>Dalbavancin</th>
<th>Oritavancin</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multiple Community Indications at Launch</td>
<td>✔️</td>
<td>✔️</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
</tr>
<tr>
<td>Once-Daily IV</td>
<td>✔️</td>
<td>✗</td>
<td>✗</td>
<td>✔️</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Once-Daily Oral</td>
<td>✔️</td>
<td>✗</td>
<td>✗</td>
<td>✔️</td>
<td>✗</td>
<td>✗</td>
</tr>
<tr>
<td>Broad-Spectrum Bacterial Coverage</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
</tr>
<tr>
<td>No Renal or Hepatic Dosage Modifications</td>
<td>✔️</td>
<td>✗</td>
<td>✗</td>
<td>✔️</td>
<td>✗</td>
<td>✔️</td>
</tr>
<tr>
<td>Low C. difficile propensity</td>
<td>✔️</td>
<td>✗</td>
<td>✗</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
</tbody>
</table>

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Sources: Package Inserts, First Data Bank (1) IV and oral exposures are equivalent.
Perception of Resistance to Oral Treatments is Low & Doesn’t Match Reality

### Resistance rates for generic oral broad-spectrum antibiotics used for CABP

<table>
<thead>
<tr>
<th>Common Pathogens (&gt;80% of all infections(^1))</th>
<th>Penicillin</th>
<th>Amoxi-Clav</th>
<th>Azithromycin</th>
<th>Tetracycline</th>
<th>Trim-Sulfa</th>
<th>Levofloxacin</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>S. pneumoniae</em></td>
<td>66.9%</td>
<td>29.8%</td>
<td>36.2%</td>
<td>33.8%</td>
<td>43%</td>
<td>2.6%</td>
</tr>
</tbody>
</table>

### Resistance rates for generic oral broad-spectrum antibiotics used for ABSSSI

<table>
<thead>
<tr>
<th>Common Pathogens (&gt;80% of all infections(^1))</th>
<th>TMP/SMX(^2)</th>
<th>Tetracycline(^3)</th>
<th>Clindamycin(^3)</th>
<th>Amoxicillin/Clavulanic acid(^3)</th>
<th>Levofloxacin(^3)</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Staphylococcus aureus</em></td>
<td>2.3%</td>
<td>3.6%</td>
<td>15.0%</td>
<td>42.3%</td>
<td>36.5%</td>
</tr>
<tr>
<td>MRSA</td>
<td>4.3%</td>
<td>4.7%</td>
<td>28.5%</td>
<td>100%</td>
<td>63.3%</td>
</tr>
<tr>
<td>β-hemolytic streptococci</td>
<td>NA(^4)</td>
<td>43.6%</td>
<td>18.6%</td>
<td>0%</td>
<td>0.3%</td>
</tr>
</tbody>
</table>

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\(^1\) Common and Laboratory Standards Institute (CLS) 2015 Criteria


4. JMI Surveillance. 2010. Data on file. β-hemolytic streptococci are not tested with TMP/SMX and it is presumed to be at least 25% resistant. All other streptococci combined resistance is 35%.
### Omadaclycline: Well Positioned for Blockbuster Potential

<table>
<thead>
<tr>
<th>Antibiotic</th>
<th>Broad Spectrum</th>
<th>Big 3(1) Indications</th>
<th>Favorable Safety</th>
<th>Oral Frequency</th>
<th>2010 Sales(3,4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Levofloxacin</td>
<td>✔️</td>
<td>3</td>
<td>✗</td>
<td>Once Daily</td>
<td>$3.4B</td>
</tr>
<tr>
<td>Co-Amoxycillin</td>
<td>✔️</td>
<td>3</td>
<td>✔️</td>
<td>Twice Daily</td>
<td>$2.8B</td>
</tr>
<tr>
<td>Azithromycin(2)</td>
<td>✔️</td>
<td>2</td>
<td>✔️</td>
<td>Once Daily</td>
<td>$1.8B</td>
</tr>
<tr>
<td>Ciprofloxacin</td>
<td>✔️</td>
<td>3</td>
<td>✗</td>
<td>Twice Daily</td>
<td>$1.4B</td>
</tr>
<tr>
<td>Clarithromycin(2)</td>
<td>✔️</td>
<td>2</td>
<td>✔️</td>
<td>Twice Daily</td>
<td>$1.4B</td>
</tr>
<tr>
<td>Omadaclycline(5)</td>
<td>✔️</td>
<td>3</td>
<td>✔️</td>
<td>Once Daily</td>
<td>N/A</td>
</tr>
</tbody>
</table>

>65% of Revenue was Generated by the Oral Formulations

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(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
(5) Anticipated based on current development plan
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) per course
- \(= \$1.2B\) 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) per course
- \(= \$1.4B\) 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) per course
- \(= \$1.3B\) 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. Paratek estimates based on 2015 AMR data current treatment failure rates and a Zyvox 2015 pricing analogue
Hospital Launch for Omadacycline: Success Begins with Specialists in Years 1-2 Post-Launch

1-2 years post launch:
- IDs
- Pulmonologists
- Hospitalists
- PharmD IDs
- ER Doctors

~6.7M¹ CABP and ABSSSI Patients Suffer Annually
~900k CABP and ABSSSI Patients We Can Help with Omadacycline

2+ years post launch:
- Internal Medicine
- Primary Care Provider
- NPs, PAs
- Urgent Care

~23.7M¹ CABP and ABSSSI Patients Suffer Annually
~1.2M CABP and ABSSSI Patients We Can Help with Omadacycline

Source 1. 20% est failures (based on hospital patterns) of first line MRSA treatment
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
- $2,100(4)
- $1.5B opportunity

CABP Opportunity: Fluoroquinolone failure, resistance suspected

- 9,370K(1) Community CABP
- ~6%(2) Fail fluoroquinolone
- ~510k cases
- $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
- $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 analog
(6) Paratek estimates based on 2015 AMR data current treatment failure rates and a Zyvox 2015 pricing analogue
Physicians Confirm Unmet Medical Needs
Omadacycline Provides a Valuable Option

There are Unmet Needs that Omadacycline Will Address

- Lower C. diff Potential
- Lack of Different Class Options
- Reduce Nursing Time
- Alternative to Quinolones
- Reduce Hospital Length of Stay
- New Therapies to Overcome Drug Resistance
- More Oral Options
- Reduce Usage of Multi-Drug Combinations
- Greater Safety
- Equivalent IV & Oral
- Established Efficacy in a Monotherapy
- Known Safety Profile
- Confidence to Discharge Patient
- Modernized Tetracycline
- Once Daily Dosing

Source: Paratek sponsored market research
Physician Antibiotic Treatment Decision Priorities

Omadacycline Offers Simplified Solutions to a Complicated Treatment Decision

**Physician Decision Priorities**

1. **How Confident am I About the Coverage for this Patient?**
   - Suspected resistance
   - gram +, gram -, atypical, or anaerobe
   - Potentially polymicrobial

2. **Are There Safety Concerns that Outweigh Expected Efficacy?**
   - Drug-drug interactions
   - C. difficile history
   - QTc, neurological, tendonitis
   - Renal impairment

3. **Are There Affordability Concerns?**
   - Cost to hospital
   - Cost to patient
   - Barriers to prescribing
Primary Antibiotic Options in CABP

IDSA/ATS Recommends a Targeted Empirical Antimicrobial Therapy\(^{(1)}\)

- **Beta-lactam** + Macrolide

 OR

- Quinolones

**The Omadacycline Patient:**
- *Elevated Resistance Risk*
- *Polymicrobial Pathogen Risk:*
  - Diabetes, Elderly
- *Contraindications to Generic Options*
  - β-lactam allergy
  - Quinolone AE’s (tendon rupture, confusion)
  - Recent history of *C. diff*

**Increased Length of Stay**

**Safety Considerations**

Primary Antibiotic Options in ABSSSI

IDSA Recommends a Targeted MRSA Antimicrobial Therapy¹

Vancomycin

OR

Linezolid

OR

Vancomycin/Linezolid

Piperacillin Tazobactam

The Omadacycline Patient:

- **Elevated Resistance Risk**
- **Polymicrobial Pathogen Risk:**
  - Diabetes, Elderly, IVDU
- **Contraindications to Generic Options**
  - Renal insufficiency
  - SSRI/MAOI DDI
  - β-lactam allergy

Increased Length of Stay

Safety Considerations

Omadacycline U.S. Timeline to Launch (Q1-2019)


- Complete Submission (NDA Filing)
- NDA Acceptance
- Anticipated NDA Action
- OPDP Review of Marketing Materials
- Sales Teams Hired and Trained
- Sales Management Team Hired
- KPI Dashboard
- Product Supply
- Finalize Pricing
- Payer Reimbursement and Trade Discussions
- Scientific Exchange
- Budget Impact Model and Health Economic Analysis and Publications
- Publications/News Flow Continues

Completed Actions:
- Commercial Team Hired
- Payer Mktg Team Hired
- Advisory Boards
- Market Research
- Disease State Education
- Initial Payer Research
- Campaign Development
- Account Teams Hired
- MSLs Hired
- Commercial Readiness

Timeline:
- Dec 2017
- Jan 2018
- Feb 2018
- Mar 2018
- Apr 2018
- May 2018
- Jun 2018
- Jul 2018
- Aug 2018
- Sep 2018
- Oct 2018
- Nov 2018
- Dec 2018
- Jan 2019
- Feb 2019
- Mar 2019
- Launch
Focus of Launch Efforts
Awareness & Education Leading to Access & Use

Pre Launch

Advocacy

Formulary Access

Utilization

Post Launch

Awareness & Education + Access = Behavior Change

- Scientific Exchange
- Unbranded Disease State Education Programs
- Publications

- HEOR Publications
- Payer Discussions
- Guidelines

- Trial
- Usage
- Adoption
Pre-Launch and 1st Year Post-Launch Key Deliverables
Publications, Payer Reviews, Distributors & Patient Assistance Programs in Place

Pre Launch

Publications:
- All phase 3 **manuscripts** in press
- OMC CID supplement in press

Health value dossier:
- **Budget Impact Model** in press

Payers:
- OMC reviewed by major **payers**

Distributors:
- All **distributors** for both IV and Oral under contract

PRTK **patient assistance program**:
- In place at launch

Post Launch

3 months Post-Launch:
- 33% of **covered lives** under contract

12 months Post-Launch:
- 66% of **covered lives** under contract

12 months Post-Launch:
- 50% of target **hospital formularies**
Omadacycline Efficacy and Safety in ABSSSI and CABP

Positive Benefit:Risk Profile Supports Regulatory Path to Approval
Omadacycline OASIS-1 Study Results
Achieved Primary Efficacy Endpoints for Both FDA and EMA

Early Clinical Response

- FDA Primary Endpoint
  - Delta (95% CI): -0.7 (-6.3, 4.9)

- Omadacycline
  - Clinical Success: 84.8%
- Linezolid
  - Clinical Success: 85.5%

mITT PTE - Clinical Success

- Delta (95% CI): +2.5 (-3.2, 8.1)

- Omadacycline
  - Clinical Success: 86.1%
- Linezolid
  - Clinical Success: 83.6%

CE-PTE - Clinical Success

- Delta (95% CI): +2.8 (-0.9, 7.1)

- Omadacycline
  - Clinical Success: 96.3%
- Linezolid
  - Clinical Success: 93.5%
Clinical Success at PTE by Baseline Pathogen (OASIS-1)
Highly Effective Across Key Gram (+) Skin Pathogens

<table>
<thead>
<tr>
<th>Baseline Pathogen</th>
<th>Omadacycline (N=228)</th>
<th>Linezolid (N=227)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N1</td>
<td>Favorable Response (%)</td>
</tr>
<tr>
<td><em>Staphylococcus aureus</em></td>
<td>156</td>
<td>130 ( 83.3)</td>
</tr>
<tr>
<td>MRSA</td>
<td>69</td>
<td>57 ( 82.6)</td>
</tr>
<tr>
<td>MSSA</td>
<td>88</td>
<td>74 ( 84.1)</td>
</tr>
<tr>
<td><em>Streptococcus anginosus</em> group</td>
<td>47</td>
<td>36 ( 76.6)</td>
</tr>
<tr>
<td><em>Streptococcus pyogenes</em></td>
<td>11</td>
<td>8 ( 72.7)</td>
</tr>
<tr>
<td><em>Enterococcus faecalis</em> (VSE)</td>
<td>10</td>
<td>9 ( 90.0)</td>
</tr>
</tbody>
</table>

*10 or More Isolates for Omadacycline

*S. anginosus group consists of: S. anginosus, S. intermedius, and S. constellatus.
MRSA, methicillin-resistant *Staphylococcus aureus*; MSSA, methicillin-susceptible *Staphylococcus aureus*; VSE, vancomycin-susceptible enterococci.
Omadacycline OPTIC Study Results
Achieved Primary Efficacy Endpoints for Both FDA and EMA

- **Early Clinical Response - ITT**
  - **Omadacycline:** 81.1%
  - **Moxifloxacin:** 82.7%
  - **Delta (95% CI):** -1.6 (-7.1, 3.8)

- **Clinical Success at PTE - ITT**
  - **Omadacycline:** 88.4%
  - **Moxifloxacin:** 85.2%
  - **Delta (97.5% CI):** +3.3 (-2.7, 9.3)

- **Clinical Success at PTE - CE-PTE**
  - **Omadacycline:** 92.5%
  - **Moxifloxacin:** 90.5%
  - **Delta (97.5% CI):** +2.0 (-3.2, 7.4)

**FDA Primary Endpoint**

**EMA Co - Primary Endpoints**
Clinical Success at PTE by Baseline Pathogen* (OPTIC)
Highly Effective Across Key Gram (+), Gram (−) & Atypical CABP Pathogens

<table>
<thead>
<tr>
<th>Baseline Pathogen</th>
<th>Omadacycline (N=204)</th>
<th></th>
<th>Moxifloxacin (N=182)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>Clinical Success n (%)</td>
<td>N</td>
<td>Clinical Success n (%)</td>
</tr>
<tr>
<td><strong>Atypical Pathogens</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mycoplasma pneumoniae</td>
<td>118</td>
<td>109 (92.4)</td>
<td>106</td>
<td>97 (91.5)</td>
</tr>
<tr>
<td>Chlamyphila pneumoniae</td>
<td>70</td>
<td>66 (94.3)</td>
<td>57</td>
<td>50 (87.7)</td>
</tr>
<tr>
<td>Legionella pneumophila</td>
<td>28</td>
<td>25 (89.3)</td>
<td>28</td>
<td>25 (89.3)</td>
</tr>
<tr>
<td><strong>Gram-Negative Bacteria (aerobes)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Haemophilus influenzae</td>
<td>32</td>
<td>26 (81.3)</td>
<td>16</td>
<td>16 (100.0)</td>
</tr>
<tr>
<td>Haemophilus parainfluenzae</td>
<td>18</td>
<td>15 (83.3)</td>
<td>17</td>
<td>13 (76.5)</td>
</tr>
<tr>
<td>Klebsiella pneumoniae</td>
<td>13</td>
<td>10 (76.9)</td>
<td>13</td>
<td>11 (84.6)</td>
</tr>
<tr>
<td><strong>Gram-Positive Bacteria (aerobes)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Streptococcus pneumoniae</td>
<td>43</td>
<td>37 (86.0)</td>
<td>34</td>
<td>31 (91.2)</td>
</tr>
<tr>
<td>PSSP</td>
<td>26</td>
<td>23 (88.5)</td>
<td>22</td>
<td>21 (95.5)</td>
</tr>
<tr>
<td>Macrolide Resistant</td>
<td>10</td>
<td>10 (100.0)</td>
<td>5</td>
<td>5 (100.0)</td>
</tr>
<tr>
<td>Staphylococcus aureus</td>
<td>11</td>
<td>8 (72.7)</td>
<td>11</td>
<td>9 (81.8)</td>
</tr>
</tbody>
</table>

*10 or More Isolates for Omadacycline
Omadacycline OASIS-2 Study Results
Achieved Primary Efficacy Endpoints for Both FDA and EMA

**mITT Early Clinical Response**
- Omadacycline: 87.5%
- Linezolid: 82.5%

**Delta (95% CI)**
- Omadacycline vs. Linezolid: +5.0 (-0.2, 10.3)

**mITT PTE - Clinical Success**
- Omadacycline: 84.2%
- Linezolid: 80.8%

**Delta (95% CI)**
- Omadacycline vs. Linezolid: +3.3 (-2.2, 9.0)

**CE-PTE - Clinical Success**
- Omadacycline: 97.9%
- Linezolid: 95.5%

**Delta (95% CI)**
- Omadacycline vs. Linezolid: +2.3 (-0.5, 5.8)

**FDA Primary Endpoint**

**EMA Co-Primary Endpoints**
Clinical Success at PTE Baseline Pathogen (OASIS-2)
Highly Effective Across Key Gram (+) Skin Pathogens

<table>
<thead>
<tr>
<th>Baseline Pathogen</th>
<th>Omadacycline (n=276)</th>
<th>Linezolid (n=287)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>Clinical Success n (%)</td>
</tr>
<tr>
<td><em>Staphylococcus aureus</em></td>
<td>220</td>
<td>182 (82.7)</td>
</tr>
<tr>
<td>MRSA</td>
<td>104</td>
<td>89 (85.6)</td>
</tr>
<tr>
<td>MSSA</td>
<td>120</td>
<td>97 (80.8)</td>
</tr>
<tr>
<td><em>Staphylococcus lugdunensis</em></td>
<td>5</td>
<td>4 (80.0)</td>
</tr>
<tr>
<td><em>Streptococcus pyogenes</em></td>
<td>29</td>
<td>20 (69.0)</td>
</tr>
<tr>
<td><em>Streptococcus anginosus group</em></td>
<td>57</td>
<td>49 (86.0)</td>
</tr>
<tr>
<td><em>Streptococcus anginosus</em></td>
<td>27</td>
<td>24 (88.9)</td>
</tr>
<tr>
<td><em>Streptococcus intermedius</em></td>
<td>23</td>
<td>18 (78.3)</td>
</tr>
<tr>
<td><em>Streptococcus constellatus</em></td>
<td>9</td>
<td>8 (88.9)</td>
</tr>
<tr>
<td><em>Enterococcus faecalis</em></td>
<td>8</td>
<td>8 (100.0)</td>
</tr>
<tr>
<td>VRE</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>VSE</td>
<td>7</td>
<td>7 (100.0)</td>
</tr>
</tbody>
</table>
Most Frequent TEAEs in the OASIS-1, OASIS-2 and OPTIC Studies
Omadacycline Safety and Tolerability Profile Established

### Selected TEAS Occurring in ≥2% of Patients Receiving Omadacycline in the Pooled Phase 3 CABP and ABSSSI Clinical Trials

<table>
<thead>
<tr>
<th>Event</th>
<th>Omadacycline (N = 1073)</th>
<th>Linezolid (N = 689)</th>
<th>Moxifloxacin (N = 388)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nausea¹</td>
<td>14.9</td>
<td>8.7</td>
<td>5.4</td>
</tr>
<tr>
<td>Vomiting¹</td>
<td>8.3</td>
<td>3.9</td>
<td>1.5</td>
</tr>
<tr>
<td>Diarrhea²</td>
<td>2.4</td>
<td>2.9</td>
<td>8.0</td>
</tr>
<tr>
<td>Transaminase Elevations Increased</td>
<td>4.3</td>
<td>4.4</td>
<td>5.2</td>
</tr>
<tr>
<td>Headache</td>
<td>2.9</td>
<td>3.0</td>
<td>1.3</td>
</tr>
</tbody>
</table>

*¹ Nearly all events of nausea and vomiting were mild or moderate in severity, resolved, and were not treatment limiting. Only 4 patients (0.4%) discontinued OMC treatment for nausea or vomiting.

*² Diarrhea occurred in 2.4% of OMC patients and no cases of *C. difficile* infection were reported in OMC patients.
Completed Omadacycline Phase 1b UTI Study Design

Imminent Need to Replace Quinolones in Cystitis

**Group 1 (n=10)**
- Dose 200 mg IV Day 1
- Dose 300 mg Oral q24h Days 2-5

**Group 2 (n=10)**
- Dose 300 mg Oral q12h Day 1
- Dose 300 mg Oral q24h Days 2-5

**Group 3 (n=11)**
- Dose 450 mg Oral q12h Day 1
- Dose 450 mg Oral q24h Days 2-5

**Screening**
(≤ 48 hours prior to randomization)

**End of Treatment**
(Day 6)

**Post Treatment Evaluation**

**Follow-Up**

5 – 9 Days Post Last Dose

30 – 37 Days Post First Dose

Serial Blood and Urine Samples Collected for Pharmacokinetic (PK)
Oral Bioavailability Results in High Omadacycline Concentrations in Urine Supports Development for a UTI Indication
Phase 2 UTI Program Underway
Adaptive Dosing Designs Employed in Cystitis and Acute Pyelonephritis Studies

**Cystitis**
- ~200 patients
- Oral omadacycline (up to 450mg) for 7 days
- Oral nitrofurantoin for 7 days

**Acute Pyelonephritis (1)**
- IV omadacycline for 7-10 days
- IV to oral omadacycline for 7-10 days
- IV to oral levofloxacin for 7-10 days

(1) Design and comparator subject to FDA discussions prior to initiation
### Key Financial Information

#### Key Metrics (unaudited)

<table>
<thead>
<tr>
<th>Metric</th>
<th>3/31/18 balance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Cash, Cash Equivalents, and Marketable Securities</td>
<td>$184.3 million</td>
</tr>
<tr>
<td>Gross Long-term Debt Obligation</td>
<td>$60.0 million</td>
</tr>
<tr>
<td>Basic Shares Outstanding</td>
<td>31,443,149</td>
</tr>
<tr>
<td>Stock Options, Restricted Stock Units, and Warrants Outstanding</td>
<td>5,945,736</td>
</tr>
</tbody>
</table>

Funding Projected through Q1 2021

(1) Includes $165 million gross proceeds from April 2018 convertible debt offering
### Equity Research Analyst Coverage

<table>
<thead>
<tr>
<th>Firm</th>
<th>Analyst</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baird</td>
<td>Mike Ulz</td>
</tr>
<tr>
<td>BTIG Research</td>
<td>Robert (Bert) Hazlett</td>
</tr>
<tr>
<td>Cantor Fitzgerald</td>
<td>Louise Chen</td>
</tr>
<tr>
<td>Gabelli</td>
<td>Kevin Kedra</td>
</tr>
<tr>
<td>Guggenheim</td>
<td>Adnan Butt</td>
</tr>
<tr>
<td>HC Wainwright</td>
<td>Ed Arce</td>
</tr>
<tr>
<td>Ladenburg Thalmann</td>
<td>Kevin DeGeeter</td>
</tr>
<tr>
<td>Leerink Partners</td>
<td>Ami Fadia</td>
</tr>
<tr>
<td>Raymond James</td>
<td>Laura Chico</td>
</tr>
<tr>
<td>Wedbush</td>
<td>Robert Driscoll</td>
</tr>
<tr>
<td>LifeSci Advisors</td>
<td>David Sherman</td>
</tr>
</tbody>
</table>

Paratek Pharmaceuticals, Inc. is followed by the analysts listed above. Please note that any opinions, estimates or forecasts regarding Paratek Pharmaceuticals, Inc.’s performance made by these analysts are theirs alone and do not represent opinions, forecasts or predictions of Paratek Pharmaceuticals, Inc. or its management. Paratek Pharmaceuticals, Inc. does not by its reference above or distribution imply its endorsement of or concurrence with such information, conclusions or recommendations.
### Paratek Investment Highlights

**Omadacycline: Potential Blockbuster Antibiotic in Both Hospital and Community Settings**

<table>
<thead>
<tr>
<th>Potential Blockbuster Antibiotic with Omadacycline</th>
</tr>
</thead>
<tbody>
<tr>
<td>• If Approved, 1st New, Once-daily, Multi-indication, Oral Antibiotic in &gt; 10Yrs</td>
</tr>
<tr>
<td>• &gt; $9 Billion Potential Addressable Market in U.S. alone*</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Modernized Tetracycline: A Promising Antibiotic Profile</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Positive Ph3 Data in Skin Infections (IV/Oral + Oral only)</td>
</tr>
<tr>
<td>• Positive Ph3 Data in Community Acquired Bacterial Pneumonia (IV/Oral)</td>
</tr>
<tr>
<td>• Established Safety Profile in &gt; 1,900 subjects</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Clear Registration Path: U.S. FDA and EU EMA</th>
</tr>
</thead>
<tbody>
<tr>
<td>• SPA + QIDP + Fast Track in the US</td>
</tr>
<tr>
<td>• Under FDA review; Anticipated Approval October 2018</td>
</tr>
<tr>
<td>• Expect to File in the EU in H2 2018</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Additional Pipeline Potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>• UTI Ph2 Study underway; Data Expected in 2019</td>
</tr>
<tr>
<td>• Biodefense opportunity: Tx &amp; prophylaxis in plague and anthrax</td>
</tr>
<tr>
<td>• Life-cycle opportunities: Lyme Disease, prostatitis, Rickettsial Disease</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Capital Efficient Commercial Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Significant Value Proposition = Hospitalization Minimization</td>
</tr>
<tr>
<td>• Hospital Promotion Without Branded Broad-spectrum IV + Oral Competitors</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Non-dilutive Funding Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Omadacycline: Ex-U.S. Commercial Rights (except China)</td>
</tr>
<tr>
<td>• Sarecycline: Milestones + U.S. Royalties (Allergan); Ex-U.S. Rights (PRTK)</td>
</tr>
</tbody>
</table>

*Paratek estimates based on 2015 AMR data current treatment failure rates and a Zyvox 2015 pricing analogue
Addressable U.S. Community Market: ~2.1M patients $5.4B Opportunity by 2028
Empiric Oral Monotherapy in Patients Who Fail to Respond or are Intolerant to Generic Option

1. **ABSSSI**: Empiric oral treatment, resistance suspected or Intolerant

   - 14,400K\(^{(1)}\) Community ABSSSI
   - \(~5\%^{(2)}\) Need broad sp + MRSA coverage
   - \(~735k\) cases
   - $2,100\(^{(5)}\)
   - $1.5B opportunity

2. **CABP**: Empiric oral treatment, resistance suspected or Intolerant

   - 9,370K\(^{(1)}\) Community CABP
   - \(~6\%^{(3)}\) Need alternative to FQ
   - \(~510k\) cases
   - $2,100\(^{(4)}\)
   - $1.1B opportunity

3. **UTI**: Empiric treatment, ESBL suspected or Intolerant

   - 33,000K\(^{(1)}\) Community UTI
   - \(~3\%^{(4)}\) Need alternative to FQ
   - \(~890k\) cases
   - $3,150\(^{(6)}\)
   - $2.8B opportunity

Total $5.4B\(^{(7)}\) Potential Opportunity

---

\(^{(1)}\) IMS-NDTI date (2014-2015): Projected to 2028

\(^{(2)}\) Estimate based on current oral treatment failure rates

\(^{(3)}\) 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)

\(^{(4)}\) Estimate from 2016 Primary research with Urologists.

\(^{(5)}\) Cost per course based on health outcome analysis, 7 day course of therapy and cost of branded Zyvox therapy as an analogue

\(^{(6)}\) 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 analog

\(^{(7)}\) Paratek estimates based on IMS-NDTI (2014-2015) projected to 2028 using current treatment failure rates and a Zyvox 2015 pricing analogue
Omadacycline IP Protection and Market Exclusivity

**GAIN Act Ensures 10 Years of Market Exclusivity**

**IP Protection:**
- Key Composition of Matter Patent (U.S. 7,553,828)
  - Expires June 2023
- Anticipated Patent Term Extension
- Possible 6 month pediatric exclusivity extension

**Regulatory Protection:**
- U.S. Data Exclusivity: Hatch Waxman
- 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
Hospital Launch: Narrow Spectrum or IV-Only Antibiotic Launches

Omadacycline Will Be Competitive with the Best of These Launches

Key Omadacycline launch attributes
• 1st new monotherapy for CABP in over a decade
• 2 indications at launch
• Once daily dosing
• Both an IV and Oral formulation

Launch Dates:
- Ceftazidime/Avibactam: Apr 2015
- Ceftolozane/Tazobactam: Dec 2014
- Dalbavancin: Jul 2014
- Oritavancin: Oct 2014
- Ceftaroline: Jan 2011
- Tigecycline: Jun 2005
- Daptomycin: Nov 2003

Source: IMS NSP data
Community Promotion 2+ Years Post-Launch Expands The Market
Omadacycline Has the Potential to Realize This Opportunity

IV & Oral, Broad Spectrum Launch Comparison - Monthly Gross $s (M)

Launch Dates:
- Moxifloxacin: Dec 1999
- Levofloxacin: Jan 1997
- Azithromycin: Mar 1992
- Clarithromycin: Oct 1991

Note: Zithromax relaunched ~July 1997 (Year 5) and then surpassed Biaxin to become the largest selling macrolide (and eventually the most prescribed antibiotic)

Source: IMS NSP data