Forward-Looking Statements

Various statements in this presentation, including, but not limited to, Vanda’s financial guidance for 2019, are “forward-looking statements” under the securities laws. Forward-looking statements are based upon current expectations that involve risks, changes in circumstances, assumptions, and uncertainties. Important factors that could cause actual results to differ materially from those reflected in Vanda’s forward-looking statements include, among others: Vanda’s ability to continue to commercialize HETLIOZ® for the treatment of Non-24 in the U.S. and Europe; uncertainty as to Vanda’s ability to increase market awareness of Non-24 and the market acceptance of HETLIOZ®; Vanda’s ability to continue to generate U.S. sales of Fanapt® for the treatment of schizophrenia; Vanda’s dependence on third-party manufacturers to manufacture HETLIOZ® and Fanapt® in sufficient quantities and quality; Vanda’s level of success in commercializing HETLIOZ® and Fanapt® in new markets; Vanda’s ability to prepare, file, prosecute, defend and enforce any patent claims and other intellectual property rights; Vanda’s ability to reach agreement with the FDA regarding its regulatory strategy, preclinical animal testing requirements and proposed path to approval for tradipitant; a loss of rights to develop and commercialize Vanda’s products under its license agreements; Vanda’s ability to obtain regulatory approval for HETLIOZ® for the treatment of Jet Lag Disorder; the ability to obtain and maintain regulatory approval of Vanda’s products, and the labeling for any approved products; the timing and success of preclinical studies and clinical trials; a failure of Vanda’s products to be demonstrably safe and effective; limitations on Vanda’s ability to utilize some or all of its prior net operating losses and orphan drug and research and development credits; the size and growth of the potential markets for Vanda’s products and the ability to serve those markets; Vanda’s expectations regarding trends with respect to its revenues, costs, expenses, liabilities and cash, cash equivalents and marketable securities; the scope, progress, expansion, and costs of developing and commercializing Vanda’s products; Vanda’s ability to identify or obtain rights to new products; a loss of any of Vanda’s key scientists or management personnel; the costs and effects of litigation; Vanda’s ability to obtain the capital necessary to fund its research and development or commercial activities; regulatory developments in the U.S., Europe and other countries; potential losses incurred from product liability claims made against Vanda; use of existing cash, cash equivalents and marketable securities and other factors that are described in the “Risk Factors” and “Management’s Discussion and Analysis of Financial Condition and Results of Operations” sections of Vanda’s annual report on Form 10-K for the fiscal year ended December 31, 2018 and quarterly report on Form 10-Q for the quarter ended September 30, 2019, which are on file with the SEC and available on the SEC’s website at www.sec.gov. In addition, other unknown or unpredictable factors could also affect Vanda’s results. There can be no assurance that the actual results or developments anticipated by Vanda will be realized or, even if substantially realized, that they will have the expected consequences to, or effects on, Vanda. Therefore, no assurance can be given that the outcomes stated in such forward-looking statements and estimates will be achieved.

All written and verbal forward-looking statements attributable to Vanda or any person acting on its behalf are expressly qualified in their entirety by the cautionary statements contained or referred to herein. Vanda cautions investors not to rely too heavily on the forward-looking statements Vanda makes or that are made on its behalf. The information in this presentation is provided only as of the date of this presentation, and Vanda undertakes no obligation, and specifically declines any obligation, to update or revise publicly any forward-looking statements, whether as a result of new information, future events, or otherwise.
Strategy for Long-Term Success

- Expand into new geographies
- Lifecycle management and product optimization
- Developing and commercializing innovative therapies to address high unmet medical needs & improve the lives of patients
- Diversified pipeline in high-growth niche therapeutic markets
Marketed Assets

Circadian Rhythms
- Hetlioz®
  - Tamsulosin capsules
  - 20 mg
- US - Non-24
- EU - Non-24

Psychiatry
- Fanapt®
  - Iloperidone tablets
  - 1 mg, 2 mg, 4 mg, 6 mg, 8 mg, 10 mg, 12 mg
- US - Schizophrenia
- ROW - Schizophrenia
  - Distribution partners
### Clinical Development Pipeline:

<table>
<thead>
<tr>
<th>Product</th>
<th>Indication</th>
<th>Preclinical</th>
<th>Phase I</th>
<th>Phase II</th>
<th>Phase III</th>
<th>Regulatory</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hetlioz®</td>
<td>Jet Lag Disorder</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Smith-Magenis Syndrome (SMS)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Non-24 Pediatric</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Delayed Sleep Phase Disorder (DSPD)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fanapt®</td>
<td>Bipolar Disorder (Oral tablets)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Long Acting Injectable (LAI)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(LAI) PK Study ongoing in preparation for a Phase III program</td>
</tr>
<tr>
<td>Tradipitant</td>
<td>Atopic Dermatitis</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Gastroparesis</td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td></td>
<td>Motion Sickness</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>VTR-297</td>
<td>Hematologic Malignancies</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Select Research & Development Milestones

**Tradjipitant**

- ✔ Gastroparesis - Initiate a Phase III study Q2 2019
- ✔ Atopic Dermatitis - Initiate a second Phase III study (EPIONE II) Q4 2019
- ❏ Atopic Dermatitis - Phase III clinical study results (EPIONE) Q1 2020
- ✔ Motion Sickness - Phase II clinical study results (Motion Sifnos) July 2019
- ❏ Motion Sickness - Initiate a Phase III program Q4 2019
- ❏ Motion Sickness - File NDA 2020

**HETLIOZ®**

- ✔ Jet Lag Disorder - complete response letter August 2019
- ❏ SMS - File sNDA Q4 2019
- ❏ DSPD - Initiate a Phase III program Q4 2019

**Fanapt®**

- ✔ Schizophrenia - Initiate a Long Acting Injectable formulation clinical study 2019
- ❏ Bipolar Disorder - Initiate a Phase III program Q4 2019
Tradipitant

Atopic Dermatitis
Gastroparesis
Motion Sickness
Tradipitant: NK-1R Antagonist

Innovative approach to treating millions of patients

The activation of NK-1R by the natural ligand Substance P is thought to be involved in the perception of itch, pain, behavioral stress response, cravings and nausea and vomiting signaling 1,2,3,4


Atopic Dermatitis
Positive Phase II study results in 2017
Phase III program ongoing

Gastroparesis
Positive Phase II study results in 2018
Phase III program ongoing

Motion Sickness
Positive Phase II study results in 2019
Phase III program planned for 2019

Partial Clinical Hold
• Proposed 12-month safety studies in gastroparesis currently subject to an FDA partial clinical hold and pending litigation
Tradipitant: Atopic Dermatitis

Atopic Dermatitis (AD): US Market

**Estimated US Prevalence**

17,800,000

- Approximately 9.8M diagnosed and 6.4M drug-treated AD patients
- Management of pruritus is a key treatment goal for patients

Atopic Dermatitis: High Unmet Medical Need

Tradipitant has the potential to become a first line pharmacological option for patients with pruritus in atopic dermatitis in need of systemic treatment

Atopic Dermatitis Treatment Options

<table>
<thead>
<tr>
<th>Local Administration (topical agents)</th>
<th>Systemic Administration (by mouth or injectable)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Antibiotics</td>
<td>Antibiotics</td>
</tr>
<tr>
<td>Antihistamines</td>
<td>Antihistamines</td>
</tr>
<tr>
<td>Corticosteroids</td>
<td>Corticosteroids</td>
</tr>
<tr>
<td>Calcineurin inhibitors</td>
<td>Cyclosporin</td>
</tr>
<tr>
<td>Eucrisa (crisaborole)</td>
<td>Dupixent (dupilumab)</td>
</tr>
<tr>
<td>Moisturizers / Emollients</td>
<td>Immunomodulators</td>
</tr>
</tbody>
</table>

Tradipitant Phase II Study (2102): Atopic Dermatitis

Results reported in September 2017

Tradipitant treated patients showed clinically meaningful improvement in both worst itch and atopic dermatitis severity

<table>
<thead>
<tr>
<th>Measure</th>
<th>Favors Tradipitant</th>
<th>Favors Placebo</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average Itch VAS</td>
<td></td>
<td>-5.7(-16.7,5.3)</td>
<td>0.306</td>
</tr>
<tr>
<td>Worst Itch VAS</td>
<td></td>
<td>-13.6(-25.0,2.9)</td>
<td>0.019</td>
</tr>
<tr>
<td>Worst Itch NRS Night*</td>
<td></td>
<td>-10.6(-19.9,1.1)</td>
<td>0.029</td>
</tr>
<tr>
<td>SCORAD Total</td>
<td></td>
<td>-7.7(-13.3,2.1)</td>
<td>0.008</td>
</tr>
<tr>
<td>Objective SCORAD</td>
<td></td>
<td>-6.3(-10.4,1.9)</td>
<td>0.005</td>
</tr>
<tr>
<td>Subjective SCORAD</td>
<td></td>
<td>-1.4(-3.4,0.6)</td>
<td>0.157</td>
</tr>
<tr>
<td>CGI-C*</td>
<td></td>
<td>-7.0(-11.0,2.0)</td>
<td>0.007</td>
</tr>
<tr>
<td>PGI-C Itch*</td>
<td></td>
<td>-6.0(-11.2,0.8)</td>
<td>0.025</td>
</tr>
<tr>
<td>PGI-CAD*</td>
<td></td>
<td>-7.1(-12.2,-1.9)</td>
<td>0.007</td>
</tr>
<tr>
<td>PBI*</td>
<td></td>
<td>-4.3(-9.4,0.3)</td>
<td>0.038</td>
</tr>
<tr>
<td>SKINDEX 16</td>
<td></td>
<td>-3.2(-8.0,1.6)</td>
<td>0.101</td>
</tr>
</tbody>
</table>

* Values are multiplied by 10 for the purpose of display

Tradipitant Phase II Study (2102) results

- Primary endpoint of average itch VAS did not show significance due to high placebo effect and lack of sensitivity of this measure
- Significant improvements also shown in Clinical Global Impression scale (CGI-C), Patient Global Impression scale (PGI-C) and Patient Benefit Index (PBI)

Results presented at recent scientific and medical meetings including

- World Congress on Itch (October 2017)
- American Academy of Dermatology (February 2018 & March 2019)
- Georg Rajka International Symposium of Atopic Dermatitis (April 2018)
- European Academy of Dermatology and Venereology Congress (September 2018)
- American Society of Human Genetics (October 2018 & October 2019)
- Clinical Genetics (April 2019)
- Society for Investigative Dermatology (May 2019)
# Tradipitant Phase III Program: Atopic Dermatitis

- 2 Phase III clinical studies: EPIONE and EPIONE II (similar study design)

| **EPIONE** Study Design | 8 weeks double-masked treatment  
Tradipitant 85mg BID versus placebo |
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Sites</td>
<td>65 in the United States</td>
</tr>
<tr>
<td>Enrollment</td>
<td>Randomized Subjects = 375</td>
</tr>
</tbody>
</table>
| Population              | Atopic dermatitis patients with significant chronic pruritus  
Refractory to conventional treatments (antihistamine/steroid treatments) |
| Assessments             | Change in Worst Itch as measured by a Numerical Rating Scale (NRS)  
Change in measures of lesion severity including SCORAD, EASI, and IGA |

- EPIONE - fully enrolled with results expected in Q1 2020
- EPIONE II – study initiated in Q4 2019 and enrollment is ongoing
Tradipitant: Gastroparesis

Gastroparesis: US Market

Up to 600,000 diagnosed

Estimated US Prevalence
6,000,000 (1.8%)²

Gastroparesis and chronic unexplained nausea and vomiting share symptomatology¹

Future treatment focus is on patient reported symptoms:
• Nausea
• Vomiting
• Postprandial fullness
• Early satiety
• Abdominal pain

Significant unmet medical need

FDA revised draft guidance in August 2019

Vanda & the medical community provided feedback to FDA in October 2019

References:
² Rey et al J Neurogastroenterol Motil, Jan 2012.
Tradipitant Phase II Study (2301): Gastroparesis

Tradipitant has the potential to become a first line treatment for patients with gastroparesis & the first new treatment option in almost 40 years¹

Results reported in December 2018

<table>
<thead>
<tr>
<th>ITT Population (n=141)</th>
<th>Tradipitant n=73</th>
<th>Placebo n=68</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Primary End Point</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DD-Nausea</td>
<td>-1.25</td>
<td>-0.73</td>
<td>0.0099</td>
</tr>
<tr>
<td><strong>Secondary End Points</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DD-% Nausea Free Days</td>
<td>28.8</td>
<td>15.0</td>
<td>0.0160</td>
</tr>
<tr>
<td>GCSI</td>
<td>-0.93</td>
<td>-0.58</td>
<td>0.0223</td>
</tr>
<tr>
<td>PAGI-SYM</td>
<td>-0.93</td>
<td>-0.65</td>
<td>0.0497</td>
</tr>
<tr>
<td>CGI-S</td>
<td>-1.13</td>
<td>-0.74</td>
<td>0.0207</td>
</tr>
<tr>
<td>PGI-C</td>
<td>2.66</td>
<td>3.06</td>
<td>0.0429</td>
</tr>
</tbody>
</table>

¹ For DD-Nausea, DD-% Nausea Free Days, GCSI, PAGI-SYM and CGI-S, the values shown are changes from baseline.

**Abbreviations**

DD-Nausea: Daily Diary Nausea score (0-5)

DD-% Nausea Free Days: Daily Diary Nausea Free Days percent (0-100)

GCSI: Gastroparesis Cardinal Symptom Index

PAGI-SYM: Patient Assessment of Gastrointestinal Disorders – Symptoms

CGI-S: Clinician Global Impression of Severity

PGI-C: Patient Global Impression of Change

ITT: Intent To Treat

¹ Reglan (metoclopramide) initial FDA approval 1979.
Tradipitant Phase II Study (2301): Gastroparesis

Vomiting subpopulation showed greater improvements in average daily nausea score

Subpopulation analysis based on screening vomiting score on GSC-Daily Diary
- Vomiting score average > 0 (at least 1 vomiting episode)
- 101/141 of patient population (~70%)
Complete Responder Analysis

ITT Population
n=141

Vomiting Population
n=101

Complete responder defined as nausea severity score ≤1 at week 4
- Nausea severity scale is 0-5
## Tradipitant Phase III Program: Gastroparesis

**Placebo Controlled Phase III Clinical Study:** Enrollment Ongoing

<table>
<thead>
<tr>
<th>Study Design</th>
<th>12 weeks double-masked treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sites</td>
<td>40 in the United States</td>
</tr>
<tr>
<td>Enrollment</td>
<td>Randomized Subjects ~ 250</td>
</tr>
<tr>
<td>Population</td>
<td>Stratified for diabetic or idiopathic gastroparesis</td>
</tr>
</tbody>
</table>
| Assessments Include   | Patient Reported Daily Diary: Nausea, Vomiting & Other Symptoms  
|                       | Patient Assessment of GI Disorders (PAGI-SYM)  
|                       | Patient Global Impression (PGI-C)  
|                       | Clinical Global Impression (CGI-S)  |
Tradipitant was shown to be effective in preventing Motion Sickness

<table>
<thead>
<tr>
<th></th>
<th>Tradipitant</th>
<th>Placebo</th>
<th>Difference</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>ITT* n=63</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% Vomiting</td>
<td>17.5%</td>
<td>39.7%</td>
<td>22.2%</td>
<td>0.0039</td>
</tr>
<tr>
<td>Worst MSSS</td>
<td>3.40</td>
<td>3.75</td>
<td>0.35</td>
<td>0.2936</td>
</tr>
</tbody>
</table>

**Motion Sifnos Phase II Study**

Single day sea travel in the Pacific Ocean
Patients with a history of motion sickness
170mg tradipitant versus placebo

Primary Endpoints
- % Vomiting
- Worst MSSS - Motion Sickness Severity Scale

ITT = Intent to Treat

An exploratory analysis was performed to evaluate the effects of tradipitant under “calm” and “rough” seas

Under “rough” sea conditions (seas above 1 meter)
- 72.2% of the placebo treated patients vomited as compared to 15.8% of those treated with tradipitant
- A significant effect was also seen under “rough” conditions in the MSSS Worst score

Vanda intends to initiate a Phase III program in Motion Sickness in Q4 2019 and file for marketing authorization in 2020
Circadian Rhythms

**Hetlioz®**
(tasimelteon) capsules
20 mg

1. **Drive sales growth for existing indication**
   - Marketed in the US for the treatment of Non-24 in adults since 2014

2. **Add new indications**
   - Jet Lag Disorder
   - Smith-Magenis Syndrome
   - Non-24 Pediatric
   - Delayed Sleep Phase Disorder

3. **Launch in new geographies**
   - Marketed in Germany for the treatment of Non-24 in adults since 2016
Non-24 is a Serious Circadian Rhythm Disorder

Key demographics

<table>
<thead>
<tr>
<th>Blind individuals with Non-24</th>
<th>Sighted individuals with Non-24</th>
</tr>
</thead>
<tbody>
<tr>
<td>~70% totally blind have Non-24</td>
<td>Non-24 is comorbid with depressive and bipolar disorders³</td>
</tr>
</tbody>
</table>

1:4000 in US (~80,000)²

Misaligned circadian timing system

Clinical characteristics

<table>
<thead>
<tr>
<th>Disrupted nighttime sleep</th>
<th>Excessive daytime sleepiness</th>
<th>Poor social and occupational functioning</th>
</tr>
</thead>
</table>

2. Vanda estimate.
HETLIOZ® Net Product Sales

Robust growth since launch

Full year 2019 global net product sales guidance of $137 to $143 million\(^1\)

1. Results expected in the upper half of the range
HETLIOZ® European Non-24 Market

• Approximately 130,000 totally blind individuals in Europe have Non-24\(^1\)

**EU Non-24 Market**

• Similar prevalence to US market

• No approved circadian regulators in EU

**Ongoing Activities**

• Engagement with blind advocacy groups

• Reimbursement & marketing preparations

**EU Priorities**

• Germany: Non-24 awareness radio campaign

• EU 5: Pricing dossier and strategy preparations for the 5 largest EU markets

• EU 6-28: Explore distribution partners for select remaining 23 EU markets

---

1. Vanda estimate.
Smith-Magenis Syndrome

- 1/15,000-25,000 births in the U.S.\(^1\)
- 5.3/100,000 in Europe\(^2\)

- Chromosomal deletion of 17p11.2
- Rare mutations of the retinoic acid 1 (RAI1) gene

- Major physical, developmental & behavioral features

Severe sleep disorder:
Strongest predictor of maladaptive behavior

- Daytime melatonin secretion

No approved treatment

---

1. Orphanet ORPHA number 819.
HETLIOZ® Smith-Magenis Syndrome

VEC-162-2401 is the largest placebo controlled study ever conducted demonstrating significant sleep improvements in patients with SMS

Study results reported in December 2018

<table>
<thead>
<tr>
<th>Endpoints</th>
<th>Description</th>
<th>HETLIOZ® (n=25)</th>
<th>Placebo (n=25)</th>
<th>Difference p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Subjective</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sleep Quality</td>
<td>DDSQ Worst 50%*</td>
<td>0.67</td>
<td>0.27</td>
<td>0.0139</td>
</tr>
<tr>
<td>(Scale 1-5)</td>
<td>DDSQ Overall</td>
<td>0.55</td>
<td>0.22</td>
<td>0.0155</td>
</tr>
<tr>
<td>Sleep Duration</td>
<td>DDTST Worst 50%*</td>
<td>36.1</td>
<td>17.6</td>
<td>0.0556</td>
</tr>
<tr>
<td>(minutes)</td>
<td>DDTST Best 50%</td>
<td>46.6</td>
<td>23.4</td>
<td>0.0052</td>
</tr>
<tr>
<td></td>
<td>DDTST Overall</td>
<td>40.9</td>
<td>19.8</td>
<td>0.0134</td>
</tr>
<tr>
<td><strong>Objective</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sleep Duration</td>
<td>Actigraphy TST Worst 50%</td>
<td>22.3</td>
<td>2.4</td>
<td>0.0309</td>
</tr>
<tr>
<td>(minutes)</td>
<td>Actigraphy TST Overall</td>
<td>20.1</td>
<td>1.9</td>
<td>0.0218</td>
</tr>
</tbody>
</table>

*Primary endpoint

For DDSQ, DDTST, Actigraphy TST, the values shown are changes from baseline.

Abbreviations
- TST: Total Sleep Time
- SQ: Sleep Quality
- DDTST: Daily Diary Total Sleep Time
- DDSQ: Daily Diary Sleep Quality

- The US Food and Drug Administration has granted orphan drug designation for HETLIOZ® for the treatment of SMS
- Vanda plans to meet with the FDA to review results and to file an sNDA for the treatment of SMS patients with HETLIOZ® in Q4 2019
Jet Lag Disorder Market

US Travelers demographics

Over 20 million US residents travel to destinations in Europe, the Middle East and Asia each year¹

80% of US passengers traveling 5-8 time zones pass through 10 airports²

35% through JFK and Newark²

Misaligned Circadian Timing System

78% of transmeridan travelers experience sleep disturbances³

Clinical Characteristics⁴

Insomnia associated with reduction in total sleep time

Daytime Sleepiness

Daytime functional impairment, general malaise, GI disturbance

**HETLIOZ® Jet Lag Disorder – JET8 Study**

Phase III study (3107) results were reported in March 2018

The magnitude of the total sleep time benefit of 85 minutes improvement over placebo is significant and clinically meaningful.

The demonstration of benefits in measurements of next day alertness on both KSS and VAS is meaningful and it underscores the ability of HETLIOZ® to address both nighttime and daytime symptoms of Jet Lag Disorder.

### Assessment	Endpoint	HETLIOZ®

<table>
<thead>
<tr>
<th>Assessment</th>
<th>Endpoint</th>
<th>HETLIOZ®</th>
<th>Placebo</th>
<th>Difference</th>
<th>p-value Summary</th>
<th>p-value Detail</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSG</td>
<td>TST₂/₃*</td>
<td>216.4</td>
<td>156.1</td>
<td>60.3</td>
<td>p&lt;0.0001</td>
<td>3.29E-12</td>
</tr>
<tr>
<td>(minutes)</td>
<td>TST&lt;sub&gt;full&lt;/sub&gt;</td>
<td>315.8</td>
<td>230.3</td>
<td>85.5</td>
<td>p&lt;0.0001</td>
<td>3.74E-14</td>
</tr>
<tr>
<td>LPS</td>
<td></td>
<td>21.8</td>
<td>36.8</td>
<td>-15.1</td>
<td>p&lt;0.01</td>
<td>8.08E-03</td>
</tr>
<tr>
<td>WASO</td>
<td></td>
<td>144.6</td>
<td>219.1</td>
<td>-74.6</td>
<td>p&lt;0.0001</td>
<td>3.41E-12</td>
</tr>
<tr>
<td>KSS (1-9)</td>
<td>average</td>
<td>4.0</td>
<td>4.5</td>
<td>-0.5</td>
<td>p&lt;0.01</td>
<td>8.28E-03</td>
</tr>
<tr>
<td>VAS (0-100)</td>
<td>average</td>
<td>60.8</td>
<td>54.2</td>
<td>6.6</td>
<td>p&lt;0.01</td>
<td>9.89E-03</td>
</tr>
</tbody>
</table>

*Primary Endpoint

**Abbreviations**

- PSG: Polysomnography
- TST: Total Sleep Time
- LPS: Latency to Persistent Sleep
- WASO: Wake After Sleep Onset
- KSS: Karolinska Sleepiness Scale
- VAS: Visual Analog Scale

**8 Hour Circadian Challenge**

This challenge is equivalent to eastward travel across 8 time zones, for example:

- Los Angeles to London
- DC to Moscow
- Paris to Tokyo
- London to Singapore
HETLIOZ® Jet Lag Disorder

Vanda received a complete response letter (CRL) from the FDA in August 2019 related to the sNDA of HETLIOZ® for the treatment of Jet Lag Disorder

Vanda met with the FDA to discuss the CRL in a Post Action meeting and is determining its next steps

Vanda believes the HETLIOZ® clinical data and safety profile support potential as a treatment option for Jet Lag Disorder

### 4 Positive Clinical Studies

<table>
<thead>
<tr>
<th>Clinical Studies</th>
<th>Patients (N)</th>
<th>Design</th>
</tr>
</thead>
<tbody>
<tr>
<td>JET8 (3107)</td>
<td>318</td>
<td>Circadian challenge of an 8 hour advance to a subject’s usual bedtime</td>
</tr>
<tr>
<td>JET5 (3101)¹</td>
<td>411</td>
<td>Circadian challenge of a 5 hour advance to a subject’s usual bedtime</td>
</tr>
<tr>
<td>JET</td>
<td>25</td>
<td>A two-phase transatlantic travel study, with an observational travel phase (baseline) followed by a treatment phase</td>
</tr>
<tr>
<td>2101 study¹</td>
<td>39</td>
<td>HETLIOZ® shifted circadian rhythms on the first night</td>
</tr>
</tbody>
</table>

Psychiatry

1. Drive sales growth for existing indication

2. Add new indications
   - Bipolar Depression
   - Long Acting Injectable

3. Launch in new geographies

Marketed in the US for the treatment of Schizophrenia since 2010

Clinical activities planned for

Partnered in select non-US markets
Schizophrenia: Fanapt®

- About 1% of adult population worldwide is diagnosed with schizophrenia¹
- About 3 million people in the US live with schizophrenia
- Patients frequently switch antipsychotic treatments due to side effects²
- Side effects include metabolic, weight and movement disorders
- Up to 25% of patients treated with some antipsychotics experience akathisia

Fanapt® is a second-line treatment for schizophrenia

- Vanda owns global rights for Fanapt®
- Commercialized outside the US through partners

1. NIMH.
2. Prescribing Information for leading brands.
Fanapt® Net Product Sales

Vanda initiated Fanapt® US promotion in April 2015

Full year 2019 global net product sales guidance of $78 to $82 million\(^1\)

A Fanapt for Schizophrenia DTC pilot is planned for early 2020

\(^1\) Results expected in the upper half of the range
Financials – Results Through September 30, 2019

9 Months Ended 9/30/2019

HETLIOZ® Net Product Sales $104.4M
Fanapt® Net Product Sales $61.9M
Total Revenue $166.3M

Cost of Goods Sold $18.3M
Research & Development $35.6M
General & Administrative $92.7M
Intangible Asset Amortization $1.1M
Operations Expense $147.7M

Income from Operations $18.6M

Cash1 $299.6M

1. Cash, cash equivalents and marketable securities
Vanda expects to achieve the following financial objectives in 2019:

<table>
<thead>
<tr>
<th>Financial Objectives</th>
<th>2019 Guidance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Combined net product sales from both HETLIOZ® and Fanapt®</td>
<td>$215 to $225 million²</td>
</tr>
<tr>
<td>HETLIOZ® net product sales</td>
<td>$137 to $143 million²</td>
</tr>
<tr>
<td>Fanapt® net product sales</td>
<td>$78 to $82 million²</td>
</tr>
<tr>
<td>Year end 2019 Cash³</td>
<td>Greater than $295 million</td>
</tr>
</tbody>
</table>

1. Guidance provided by Vanda on and as of November 6, 2019, Vanda undertakes no duty to update this guidance, and actual results may differ.

2. Net product sales guidance expected in the upper half of the range.

3. Cash, cash equivalents and marketable securities.
For more information on HETLIOZ®, please visit www.HETLIOZ.com

For more information on FANAPT®, please visit www.FANAPT.com