Roclatan™
Mercury 1 Phase 3 Topline Results
Important Information

Any discussion of the potential use or expected success of our product candidates is subject to our product candidates being approved by regulatory authorities.

The information in this presentation is current only as of its date and may have changed or may change in the future. We undertake no obligation to update this information in light of new information, future events or otherwise. We are not making any representation or warranty that the information in this presentation is accurate or complete.

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Roclatan™ Achieves Primary Clinical Endpoint

- Roclatan™ met the criteria for demonstrating superiority over both latanoprost and Rhopressa™ for the primary efficacy analysis
  - statistical superiority of Roclatan™ was demonstrated at all 9 time points versus latanoprost and versus Rhopressa™ (p<0.0001)
- IOP-lowering effect of Roclatan™ was greater (1-3 mmHg) than monotherapy with either latanoprost or Rhopressa™ throughout the duration of the study (i.e., Week 2, Week 6, Month 3)
- Roclatan™ reduced mean diurnal IOPs to 16 mmHg or lower in 61 percent of patients, a significantly higher percentage than observed in the comparator arms
- The main adverse event for Roclatan™ was conjunctival hyperemia, which was reported in ~50% of patients and was scored as mild for ~80% of these patients
- There were no drug-related serious adverse events and no evidence of treatment-related systemic effects
Mercury 1 Trial Design

Patients with open angle glaucoma (OAG) or ocular hypertension (OHT) with IOP >20 mmHg and < 36 mmHg
N=718 subjects randomized at 58 US sites

Patients randomized 1:1:1

Roclatan™
PG324 (netarsudil/latanoprost)
QD (PM)

Rhopressa™
Netarsudil (AR-13324) 0.02%
QD (PM)

Latanoprost
0.005%
QD (PM)

Primary endpoints:
• Efficacy: Mean IOP at nine time points (08:00, 10:00, and 16:00 at Week 2, Week 6, and Month 3)
• Safety: Ocular and systemic safety during a 12-month treatment period

ClinicalTrials.gov Identifier: NCT02558400
## Disposition

<table>
<thead>
<tr>
<th>Reason for Discontinuation</th>
<th>Roclatan™ N = 238</th>
<th>Rhopressa™ N = 244</th>
<th>Latanoprost N = 236</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adverse Event</td>
<td>25 (10.5%)</td>
<td>23 (9.4%)</td>
<td>0</td>
</tr>
<tr>
<td>Withdrawal of Consent</td>
<td>4 (1.7%)</td>
<td>4 (1.6%)</td>
<td>4 (1.7%)</td>
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<tr>
<td>Non-Compliant</td>
<td>0</td>
<td>1 (0.4%)</td>
<td>1 (0.4%)</td>
</tr>
<tr>
<td>Lost to Follow-up</td>
<td>1 (0.4%)</td>
<td>3 (1.2%)</td>
<td>1 (0.4%)</td>
</tr>
<tr>
<td>Lack of Efficacy</td>
<td>0</td>
<td>5 (2.0%)</td>
<td>1 (0.4%)</td>
</tr>
<tr>
<td>Disallowed Concurrent Medication</td>
<td>1 (0.4%)</td>
<td>4 (1.6%)</td>
<td>1 (0.4%)</td>
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<tr>
<td>Investigator Decision</td>
<td>2 (0.8%)</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Protocol Violation</td>
<td>4 (1.7%)</td>
<td>1 (0.4%)</td>
<td>5 (2.1%)</td>
</tr>
<tr>
<td>Other</td>
<td>0</td>
<td>2 (0.8%)</td>
<td>0</td>
</tr>
<tr>
<td>Completed Month 3</td>
<td>201 (84.5%)</td>
<td>201 (82.4%)</td>
<td>223 (94.5%)</td>
</tr>
<tr>
<td>Discontinued Prior to Month 3</td>
<td>37 (15.5%)</td>
<td>43 (17.6%)</td>
<td>13 (5.5%)</td>
</tr>
</tbody>
</table>
Study Design And Analysis

• Trial design follows FDA requirement for fixed dose combination
  – Superiority of combination over each individual component
  – Statistically significant difference at each measured time point
  – Higher combo efficacy vs. components at ~1-3 mmHg, as previously accepted by FDA for product approval (i.e., Simbrinza®)

• The primary statistical modeling of the primary efficacy analysis was agreed with the FDA using the intent to treat (ITT) population with imputation for any missing data*

*FDA End of Phase 2 meeting minutes
Roclatan™ Achieved Statistical Superiority Over Individual Components at All Time Points

Mean IOP at Each Time Point (ITT)

***p<0.0001 vs Latanoprost and Rhopressa™
### Roclatan™ Phase 3, ITT

<table>
<thead>
<tr>
<th></th>
<th>Mean IOP mmHg</th>
<th>Difference from Roclatan™ (95% CI)</th>
<th>Rhopressa™</th>
<th>Latanoprost</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Roclatan™ N=238</td>
<td>Rhopressa™ N=244</td>
<td>Latanoprost N=236</td>
<td>Rhopressa™</td>
</tr>
<tr>
<td><strong>Baseline</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8:00 AM</td>
<td>24.8</td>
<td>24.8</td>
<td>24.6</td>
<td></td>
</tr>
<tr>
<td>10:00 AM</td>
<td>23.7</td>
<td>23.5</td>
<td>23.4</td>
<td></td>
</tr>
<tr>
<td>4:00 PM</td>
<td>22.6</td>
<td>22.6</td>
<td>22.4</td>
<td></td>
</tr>
<tr>
<td><strong>Mean Diurnal</strong></td>
<td>23.7</td>
<td>23.6</td>
<td>23.5</td>
<td></td>
</tr>
<tr>
<td><strong>Day 15</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8:00 AM</td>
<td>15.6</td>
<td>18.6</td>
<td>17.8</td>
<td>-3.0 (-3.6, -2.5)</td>
</tr>
<tr>
<td>10:00 AM</td>
<td>14.9</td>
<td>17.8</td>
<td>17.4</td>
<td>-2.9 (-3.5, -2.3)</td>
</tr>
<tr>
<td>4:00 PM</td>
<td>14.8</td>
<td>17.2</td>
<td>17.2</td>
<td>-2.4 (-2.9, -1.9)</td>
</tr>
<tr>
<td><strong>Mean Diurnal</strong></td>
<td>15.1</td>
<td>17.9</td>
<td>17.5</td>
<td>-2.8 (-3.3, -2.3)</td>
</tr>
<tr>
<td><strong>Day 43</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8:00 AM</td>
<td>16.0</td>
<td>19.0</td>
<td>17.7</td>
<td>-3.0 (-3.6, -2.4)</td>
</tr>
<tr>
<td>10:00 AM</td>
<td>15.3</td>
<td>18.0</td>
<td>17.1</td>
<td>-2.7 (-3.3, -2.2)</td>
</tr>
<tr>
<td>4:00 PM</td>
<td>15.3</td>
<td>17.5</td>
<td>17.0</td>
<td>-2.2 (-2.7, -1.6)</td>
</tr>
<tr>
<td><strong>Mean Diurnal</strong></td>
<td>15.5</td>
<td>18.2</td>
<td>17.3</td>
<td>-2.7 (-3.1, -2.2)</td>
</tr>
<tr>
<td><strong>Day 90</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8:00 AM</td>
<td>16.2</td>
<td>18.9</td>
<td>17.6</td>
<td>-2.7 (-3.4, -2.1)</td>
</tr>
<tr>
<td>10:00 AM</td>
<td>15.3</td>
<td>18.2</td>
<td>16.9</td>
<td>-2.9 (-3.5, -2.3)</td>
</tr>
<tr>
<td>4:00 PM</td>
<td>15.4</td>
<td>17.2</td>
<td>16.7</td>
<td>-1.8 (-2.4, -1.2)</td>
</tr>
<tr>
<td><strong>Mean Diurnal</strong></td>
<td>15.6</td>
<td>18.1</td>
<td>17.1</td>
<td>-2.5 (-3.0, -2.0)</td>
</tr>
</tbody>
</table>

- **Roclatan™** superior to latanoprost by 1.3 - 2.5 mmHg (p<0.0001)
- **Roclatan™** superior to Rhopressa™ by 1.8 - 3.0 mmHg (p<0.0001)
**Roclatan™ Phase 3 Responder Analysis**

**Day 90: % of Patients with IOP Reductions of ≥ 20%**

![Bar chart showing IOP reductions](chart)

- **Rhopressa™** (n=198)
  - ≥ 40%: 7% (9%)
  - ≥ 35%: 18% (21%)
- Latanoprost (n=223)
  - ≥ 40%: 35%
  - ≥ 35%: 29%
  - ≥ 30%: 37%
  - ≥ 25%: 43%
  - ≥ 20%: 56%
- **Roclatan™** (n=200)
  - ≥ 40%: 78%
  - ≥ 35%: 77%
  - ≥ 30%: 77%
  - ≥ 25%: 61%
  - ≥ 20%: 56%

### Statistical Significance

- **p<0.0001** vs Latanoprost and Rhopressa™
- **### p<0.0001** vs Rhopressa™, **p<0.05** vs Latanoprost
Roclatan™ Phase 3 Responder Analysis

Day 90: % of Patients with IOP Reduced to 18 mmHg or Lower

<table>
<thead>
<tr>
<th>IOP on Treatment</th>
<th>Rhopressa™ (n=198)</th>
<th>Latanoprost (n=223)</th>
<th>Roclatan™ (n=200)</th>
</tr>
</thead>
<tbody>
<tr>
<td>≤ 14 mmHg</td>
<td>14%</td>
<td>15%</td>
<td>15%</td>
</tr>
<tr>
<td>≤ 15 mmHg</td>
<td>33% ***</td>
<td>23% **</td>
<td>25% ***</td>
</tr>
<tr>
<td>≤ 16 mmHg</td>
<td>25% ***</td>
<td>23% **</td>
<td>32% ***</td>
</tr>
<tr>
<td>≤ 17 mmHg</td>
<td>42%</td>
<td>42%</td>
<td>54% ###</td>
</tr>
<tr>
<td>≤ 18 mmHg</td>
<td>69%</td>
<td>71%</td>
<td>82% ###</td>
</tr>
</tbody>
</table>

***p<0.0001 vs Latanoprost and Rhopressa™
###p<0.0001 vs Rhopressa™, p<0.05 vs Latanoprost
Safety/Tolerability Overview of Roclatan™

- There were no drug-related serious adverse events (SAEs)
- There were no evidence of treatment-related systemic effects
- The most common adverse event was conjunctival hyperemia with ~50% incidence*, ~80% mild on biomicroscopy
- Other ocular AEs
  - AEs occurring in ~5-11% of subjects receiving Roclatan™ included: conjunctival hemorrhage, eye pruritus, lacrimation increased and cornea verticillata.

* Incidence of conjunctival hyperemia ~50% including baseline at ~20%
## Roclatan™ Phase 3 Safety Profile

### Adverse Events (≥5.0% in any group)

<table>
<thead>
<tr>
<th>Adverse Events</th>
<th>Roclatan™ n=238</th>
<th>Rhopressa™ n=244</th>
<th>Latanoprost n=236</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Eye Disorders</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Conjunctival Hyperemia</td>
<td>126 (52.9%)</td>
<td>99 (40.6%)</td>
<td>33 (14.0%)</td>
</tr>
<tr>
<td>Conjunctival Hemorrhage</td>
<td>25 (10.5%)</td>
<td>34 (13.9%)</td>
<td>1 (0.4%)</td>
</tr>
<tr>
<td>Eye Pruritus</td>
<td>18 (7.6%)</td>
<td>17 (7.0%)</td>
<td>3 (1.3%)</td>
</tr>
<tr>
<td>Lacrimation Increased</td>
<td>14 (5.9%)</td>
<td>15 (6.1%)</td>
<td>1 (0.4%)</td>
</tr>
<tr>
<td>Cornea Verticillata</td>
<td>12 (5.0%)</td>
<td>9 (3.7%)</td>
<td>0 (0.0%)</td>
</tr>
<tr>
<td><strong>Administration Site Conditions</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Instillation site pain</td>
<td>45 (18.9%)</td>
<td>51 (20.9%)</td>
<td>15 (6.4%)</td>
</tr>
</tbody>
</table>

Patients with known contraindications or hypersensitivity to latanoprost were excluded.
Conjunctival Hyperemia

Adverse Event rates:
- **Roclatan™**: ~50%
- **Rhopressa™**: ~40%
  - ~50% reported in Rocket 1 and Rocket 2
- **Latanoprost**: ~15%

Biomicroscopy:
- ~80% hyperemia graded as mild (Roclatan™ and Rhopressa™)
  - Hyperemia severity did not increase with continued dosing
  - Majority of the hyperemia was sporadic

![Hyperemia Graph]

Hyperemia severity:
- 0 = none
- 1 = mild
- 2 = moderate
- 3 = severe

Baseline, Week 2, Week 6, Month 3
When Present, ~80% of Roclatan™ Hyperemia Graded as Mild

<table>
<thead>
<tr>
<th>Grade</th>
<th>Image</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td><img src="image1" alt="Image" /></td>
<td>None/Normal</td>
</tr>
<tr>
<td>1</td>
<td><img src="image2" alt="Image" /></td>
<td>Mild</td>
</tr>
<tr>
<td>2</td>
<td><img src="image3" alt="Image" /></td>
<td>Moderate</td>
</tr>
<tr>
<td>3</td>
<td><img src="image4" alt="Image" /></td>
<td>Severe</td>
</tr>
</tbody>
</table>

For illustrative purposes only
Conjunctival Hemorrhage

Subconjunctival petechiae coded as conjunctival hemorrhage:
- Roclatan™: ~10%
- Rhopressa™: ~14%
  - ~14% reported in Rocket 1 and Rocket 2
- Latanoprost: <1%
Cornea Verticillata

Cornea verticillata (lipid micro-deposits in the corneal epithelial layer)
- Roclatan™: ~5%
- Rhopressa™: ~4%
  - ~5-9% reported in Rocket 1 and Rocket 2
- Asymptomatic
- Only visible via biomicroscopy evaluation
- Benign corneal deposits (phospholipidosis) are a familiar outcome with other drugs such as amiodarone
Rhopressa™ Performance Summary

• Demonstrated non-inferiority to latanoprost in patients with baseline IOP < 25 mmHg
• Efficacy relative to latanoprost improves as baseline IOP declines
• Rhopressa™ maintained consistent IOP lowering across all baseline IOPs including > 25 mmHg
• Stable efficacy from week 2 to month 3
• Adverse event profile consistent with previous studies
Roclatan™ Summary

- Demonstrated superiority over both latanoprost and Rhopressa™ for the primary efficacy analysis at all 9 time points (p<0.0001)
- IOP-lowering effect was greater (1-3 mmHg) than monotherapy with either latanoprost or Rhopressa™ throughout the duration of the study
- There were no drug-related serious adverse events and no evidence of treatment-related systemic effects
- The main adverse event was conjunctival hyperemia, ~50% of patients and was scored as mild for ~80% of these patients

Next Steps:

- Mercury 2: Topline 3-month expected H1 2017
- Mercury 3 (Europe): Efficacy study, comparing to a leading combo product marketed in Europe, expected to commence in H1 2017
- Roclatan™ NDA filing expected near year-end 2017

Aerie will present additional details at Investor Day in NYC, Oct 5
Rhopressa™ and Roclatan™ Key Milestones

2016

Q1-2016: Rhopressa™ Rocket 2 Topline safety (12 mos)

Q2-2016: Roclatan™ P3 Mercury 2 Topline efficacy (3 mos)

Q3-2016: Roclatan™ P3 Mercury 1 Topline efficacy (3 mos)

Q3-2016: Rhopressa™ NDA filed

Q4-2016: Rhopressa™ Rocket 4 Topline efficacy (3 mos)

2017

1H-2017: Roclatan™ P3 Mercury 3 (EU) to be initiated

Q2-2017: Roclatan™ P3 Mercury 2 Topline efficacy (3 mos)

Q3-2017: Roclatan™ P3 Mercury 1 Topline safety (12 mos)

Near YE 2017: Roclatan™ NDA filing expected