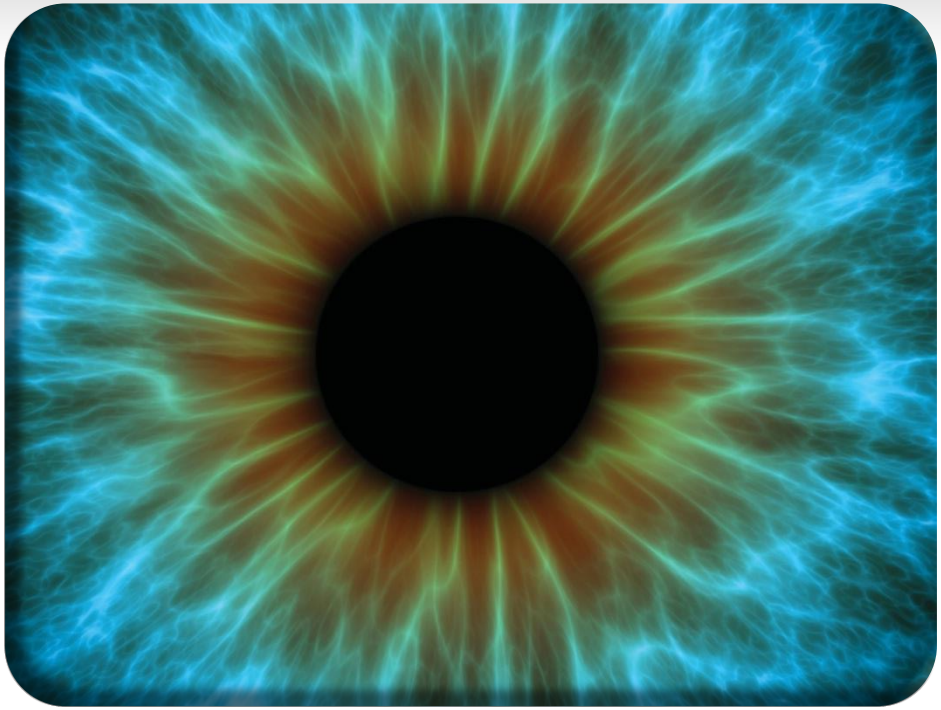


Rhopressa™
Rocket 2 Phase 3 Topline Results

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.

Certain statements in this presentation are “forward-looking statements” within the meaning of the federal securities laws. Words such as “may,” “will,” “should,” “would,” “could,” “believe,” “expects,” “anticipates,” “plans,” “intends,” “estimates,” “targets,” “projects,” “potential” or similar expressions are intended to identify these forward-looking statements. These statements are based on the Company’s current plans and expectations. Known and unknown risks, uncertainties and other factors could cause actual results to differ materially from those contemplated by the statements. In evaluating these statements, you should specifically consider various factors that may cause our actual results to differ materially from any forward-looking statements. These risks and uncertainties are described more fully in the quarterly and annual reports that we file with the SEC, particularly in the sections titled “Risk Factors” and “Management’s Discussion and Analysis of Financial Condition and Results of Operations.” Such forward-looking statements only speak as of the date they are made. We undertake no obligation to publicly update or revise any forward-looking statements, whether because of new information, future events or otherwise, except as otherwise required by law.

Rhopressa™ Achieves Primary Clinical Endpoint

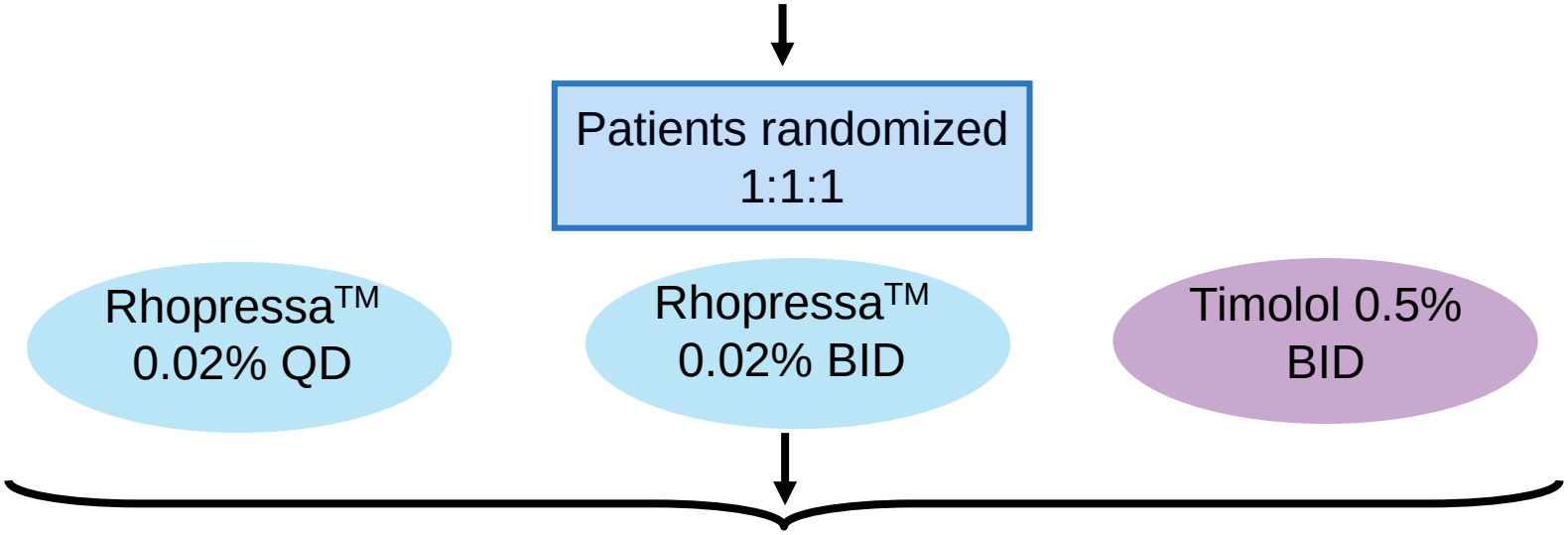
- Rhopressa™ QD and Rhopressa™ BID met the criteria for non-inferiority to Timolol BID for the primary efficacy analysis (baseline IOP <25 mmHg)
- Rhopressa™ QD showed stable efficacy from Week 2 to Month 3
- Rhopressa™ QD adverse event profile in Rocket 2 similar to Rocket 1
- Rhopressa™ BID slightly more effective than QD, but had higher incidence of adverse events which led to greater early terminations
- On target to file Rhopressa™ NDA in mid-2016

Rhopressa™ Rocket 2 Trial Design

Original primary endpoint:

Mean IOP for subjects with baseline IOP >20 mmHg and <27 mmHg

N=756 randomized at 62 sites



Revised range for primary endpoint:

Mean IOP for subjects with baseline IOP > 20 mmHg and <25 mmHg

N=403 subjects per protocol

Study Endpoints

Efficacy

- Primary efficacy endpoint was the mean IOP for subjects with baseline IOP >20 mmHg and <25 mmHg in the study eye at nine time points: 08:00, 10:00, and 16:00 at Week 2, Week 6, and Month 3
- Multiple secondary endpoints including baseline IOP <27 mmHg

Safety

- Ocular and systemic safety measures at each visit through 12 months

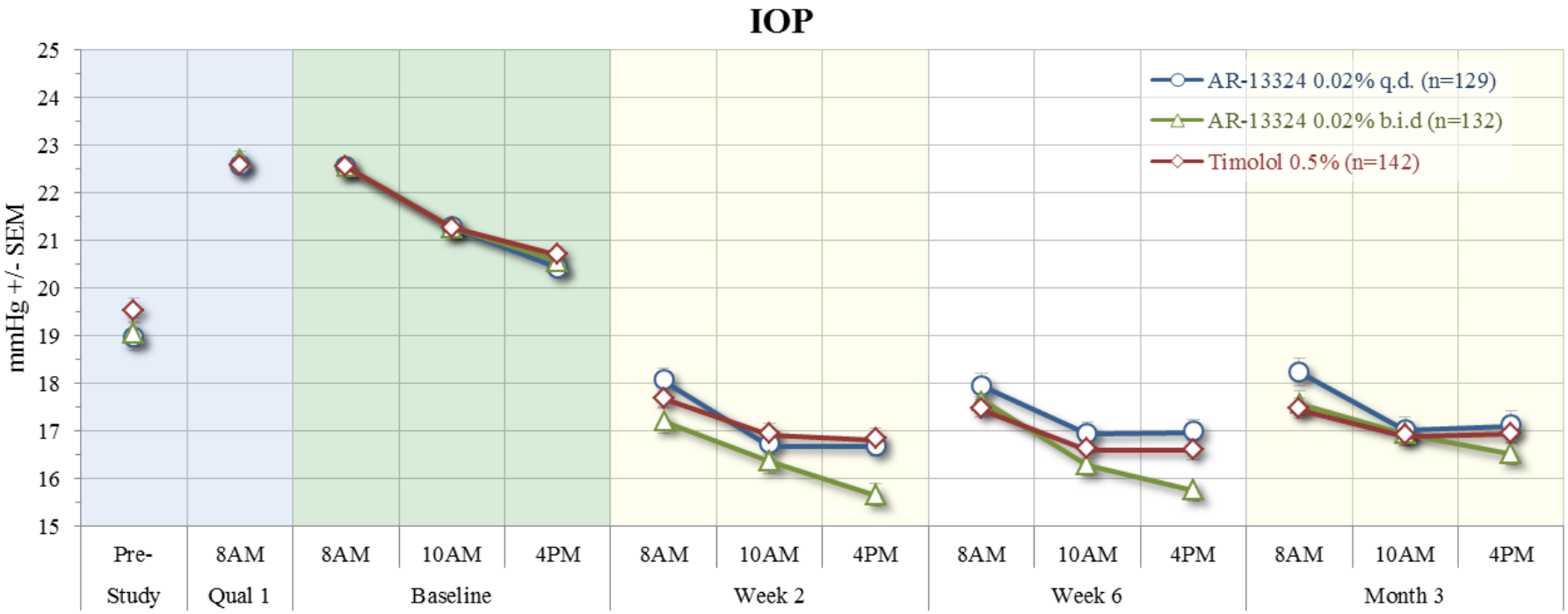
Baseline Demographics

	Rhopressa ™ QD N = 251	Rhopressa ™ BID N = 254	Timolol BID N = 251
Gender			
Male	103 (41%)	89 (35%)	101 (40%)
Female	148 (59%)	165 (65%)	150 (60%)
Race, n (%)			
White	178 (71%)	177 (70%)	166 (66%)
Black/African American	69 (28%)	69 (27%)	76 (30%)
Other	4 (1%)	8 (3%)	9 (4%)
Age (yrs)			
< 65	111 (44%)	126 (50%)	131 (52%)
>65	140 (56%)	128 (50%)	120 (48%)
Iris Color, n (%)			
Brown/Black	155 (62%)	169 (67%)	165 (66%)
Blue/Grey/Green	60 (24%)	57 (22%)	69 (28%)
Hazel	35 (14%)	28 (11%)	17 (7%)
Other	1 (0.4%)	0 (0%)	0 (0%)

Early Termination Summary

- Early termination rates comparable to Rocket 1
  - Rhopressa™ QD: 18%
  - Rhopressa™ BID: 40% (Rocket 2 only)
  - Timolol BID: 6%
- Early termination rates for conjunctival hyperemia
  - Rhopressa™ QD: 9%
  - Rhopressa™ BID: 17%

Primary Efficacy Endpoint
Maximum Baseline IOP <25 mmHg



Primary Efficacy Endpoint
Maximum Baseline IOP <25 mmHg

	Mean IOP		
	Rhopressa™ QD N=129	Rhopressa™ BID N=132	Timolol BID N=142
Baseline			
8:00 AM	22.5	22.6	22.5
10:00 AM	21.3	21.3	21.3
4:00 PM	20.4	20.6	20.7
Day 15			
8:00 AM	18.1	17.2	17.7
10:00 AM	16.7	16.4	16.9
4:00 PM	16.7	15.7	16.8
Day 43			
8:00 AM	18.0	17.6	17.5
10:00 AM	17.0	16.3	16.6
4:00 PM	17.0	15.8	16.6
Day 90			
8:00 AM	18.2	17.6	17.5
10:00 AM	17.0	16.9	16.9
4:00 PM	17.1	16.5	17.0

Rocket 2 vs. Rocket 1 Efficacy

- Similarities
  - Rhopressa™ QD met non-inferiority at baseline IOPs <25 mmHg
  - Rhopressa™ QD missed non-inferiority at baseline IOPs <27 mmHg (secondary endpoint in Rocket 2)
  - Rhopressa™ QD showed consistent IOP lowering across baseline IOPs
  - Timolol was slightly more efficacious in Rocket 2, but similarly showed loss of efficacy at lower baseline IOPs
- Differences
  - Early synergy with prior PGA use less obvious at Week 2 compared to Rocket 1 and Phase 2 studies
  - Larger proportion of naïve patients in Rocket 2
  - 50 of 62 study sites not involved in prior Rhopressa™ studies

Safety/Tolerability Overview of Rhopressa™ (Days 15-90)

- There were no drug-related serious adverse events (SAEs)
- The most common adverse event was conjunctival hyperemia
  - Rhopressa™ QD: ~35% increased incidence of which 83% was mild, 16% moderate
  - Rhopressa™ BID: ~50% increased incidence of which 66% was mild, 33% moderate
- Other ocular AEs
  - AEs occurring in ~5-15% of subjects receiving Rhopressa™ QD included: conjunctival hemorrhage, corneal deposits, and blurry vision
  - AEs occurring in ~5-17% of subjects receiving Rhopressa™ BID included: conjunctival hemorrhage, blurry vision, corneal deposits, increased lacrimation, reduced visual acuity, eye pruritus, and conjunctival edema

Rhopressa™ and Roclatan™ Next Steps

Rhopressa™

- Rocket 2: First 100 patients on Rhopressa™ 12-month safety results at the end of 2015 or early 2016
- On track to file our Rhopressa™ NDA in mid-2016
- Rocket 4: A fourth Phase 3 trial expected to commence by the end of September 2015

Roclatan™

- Mercury 1: First Phase 3 12-month study expected to commence by the end of September 2015
- Mercury 2: Phase 3 3-month study expected to commence in 2016
- Mercury 3 (Europe): Efficacy study, comparing to a leading combo product marketed in Europe, expected to commence in H2 2016

Rhopressa™ Advantages

- Proven once-daily IOP lowering
- Triple mechanism of action
- Targets diseased trabecular meshwork in glaucoma
- Potential to preserve health of trabecular outflow pathway
  - Anti-fibrotic effect demonstrated preclinically in human trabecular meshwork cells
  - Increased perfusion demonstrated preclinically in human trabecular meshwork and episcleral tissues

Aerie will present additional details at Investor/Media Day at AAO, Nov 13