RVL-1201

Investor Presentation

June 2020

Osmotica Pharmaceuticals

Safe Harbor

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Non-GAAP Financial Measures

We present Adjusted EBITDA to help us describe our operating performance. Our presentation of Adjusted EBITDA is intended as a supplemental measure of our performance that is not required by, or presented in accordance with, U.S. generally accepted accounting principles ("GAAP"). Adjusted EBITDA should not be considered as an alternative to operating income (loss), net income (loss) or any other performance measures derived in accordance with U.S. GAAP as measures of operating performance or operating cash flows or as measures of liquidity. Our presentation of Adjusted EBITDA should not be construed to imply that our future results will be unaffected by these items. See the appendix to this presentation for a reconciliation of Adjusted EBITDA to net income (loss).

Acquired Ptosis

Ptosis is a common condition characterized by both cosmetic and functional manifestations

Clinical Overview of Ptosis

Mild (38%)

1-2mm Droop

Limited Visual Impairment

Moderate (48%)

2-4mm Droop

Mild-Medium Visual Impairment

Severe (14%)

> 4mm Droop

Significant Visual Impairment

Ptosis is a unilateral or bilateral abnormal drooping of the upper eyelid that usually occurs from a partial or complete dysfunction of the muscles that elevate the upper eyelid – the levator palpebrae and the Müller's muscle

Ptosis can be **acquired** (patients that develop the condition usually due to aging) or **congenital** (patients born with condition) – severity depends on extent of eyelid droop

Signs & Symptoms of Ptosis

Increased Distance Between the Upper Eyelid and the Eye Brow

Sleepy Appearance

Asymmetric Appearance Between the Eyes

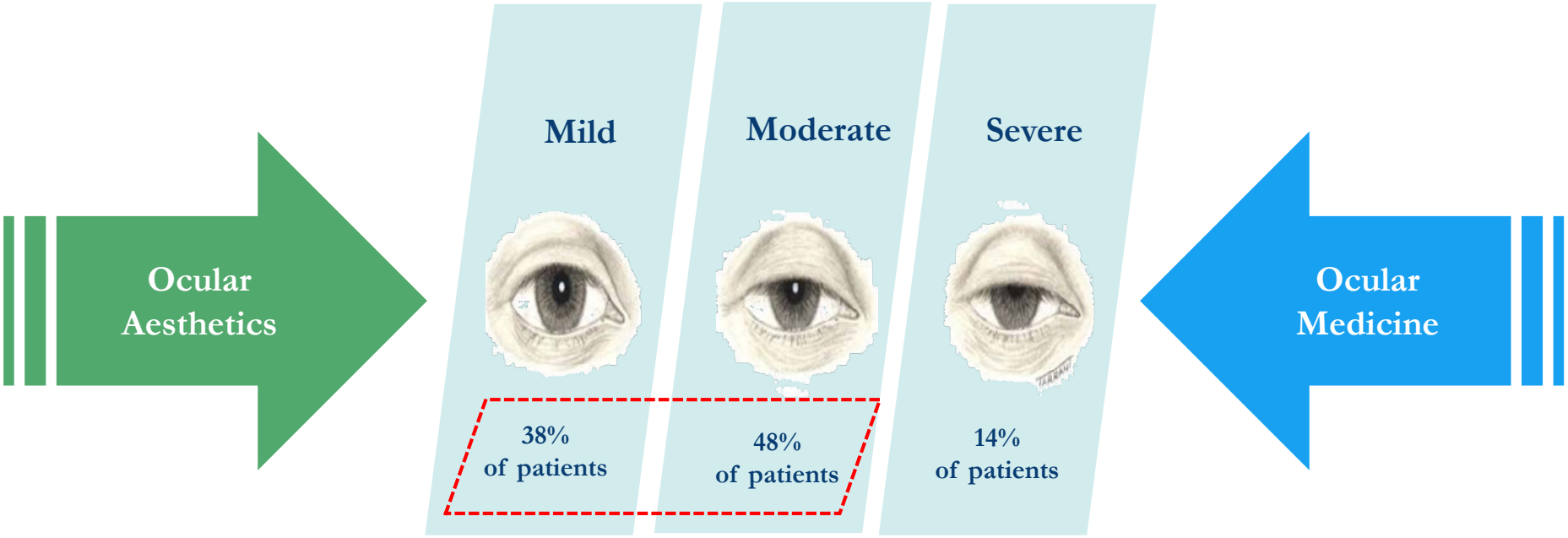
Obstructed Pupil

Upper Eyelid Covering the Top Surface of the Eye

Reduced visual field

Acquired Ptosis

Acquired ptosis ("droopy eyelid") lies at the intersection of ocular medicine and ocular aesthetics



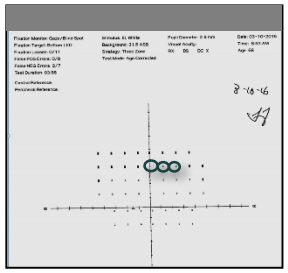
RVL-1201 – Clinical Overview

Safe and effective first-in-class treatment for acquired ptosis (droopy eyelid)

RVL-1201 Target Product Profile

Mechanism	• Oxymetazoline is a direct acting alpha-adrenergic agonist targeting the Müller's muscle • Soothing formulation that replicates the comfort of artificial tears
Dosing	• One drop in each eye in the morning • No restrictions on duration of use expected (FDA)
Efficacy	• ~35%-45% visual field improvement in Leicester Peripheral Field Test (LPFT) • Rapid onset of action; effect within 5 minutes (MRD1) • Proven effective at hours 2 and 6 post-dose in clinical studies
Safety	• RVL-1201 was well tolerated, adverse effects were generally in line with placebo, predominantly mild in intensity and self-resolved

Strong Medical Foundation Of Efficacy[1]



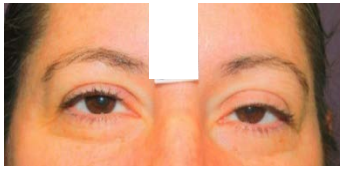
LPFT Before

LPFT After

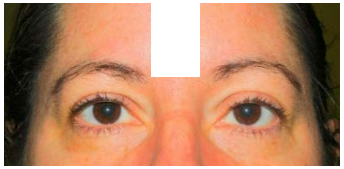
35% - 44% Improvement in Superior Visual Field

&…

Compelling Cosmesis Effect



Before RVL



After RVL

1. Phase 3 Study 202 Results

RVL-1201 Development Overview

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Comprehensive development program and completed NDA submission

U.S. Regulatory Requirements

Clinical (5 Studies)

- Bioavailability Study (vs. RHOFADE™)
- RVL-1201-000 (Phase I/II)
- RVL-1201-201 (Phase III Efficacy & Safety)
- RVL-1201-202 (Phase III Efficacy & Safety)
- RVL-1201-203 (Phase III Safety)

Non-Clinical

- Relevant animal and in vitro pharmacology regarding oxymetazoline extracted from scientific literature
- 28-day ocular toxicity study (repeat dose) in New Zealand white rabbits
- Pivotal GLP-compliant 26-week ocular and systemic toxicity study (repeat dose) in New Zealand white rabbits

Quality (CMC)

- Pharmaceutical Development Report
- Two qualified API sources
- Well-characterized and reliable manufacturing and packaging process
- Three batches; 1-year stability data

U.S. Timeline

September 16th, 2019	1H 2020	July 16, 2020	2H 2020
NDA Submitted	Foundational Medical Publication Accepted	PDUFA Goal Date	Planned US Commercial Launch

Clinical Trial Summary

Demonstrated statistically significant improvement in both visual field improvement (LPFT) and eyelid lift (MRD1) in two pivotal efficacy studies and has been safe and well tolerated across all studies, including a 3-month Phase III extended safety trial

Study	001	201	202	203
Phase	I / II	III	III	III
Enrollment	46	140	164	234
Design	Randomized, multicenter, double-masked, placebo-controlled dose finding study	Randomized, multicenter, double-masked, placebo-controlled., 6-week study (Pivotal Efficacy Study #1)	Randomized, multicenter, double-masked, placebo-controlled, 6-week study (Pivotal Efficacy Study #2)	Randomized, multicenter, double-masked, placebo-controlled, 12-week study (Pivotal Safety Study)
Primary Endpoint	Mean increase from baseline in points seen on the Humphrey Visual Field ("HVF")	Mean change in baseline in number of points seen in top 4 rows of LPFT	Mean change from baseline in number of points seen in top 4 rows of LPFT	Safety
Primary Outcome	Demonstrated QD treatment effect equal to BID dosing[1]	Met primary endpoint for change from baseline in LPFT	Met primary endpoint for change from baseline in LPFT	Overall incidence of adverse events was similar to that of placebo
Secondary Endpoint		Mean observed MRD1 values	Mean observed MRD1 values	
Secondary Outcome		Significant improvement seen in MRD1 at 2 and 6 hours post-dose	Significant improvement seen in MRD1 for all observed time points post-dose	

Note: Overview of non-clinical studies including 6-month toxicology study available in the appendix
1. BID doses were spread 8 hours apart

Leicester Peripheral Field Test and Marginal Reflex Distance

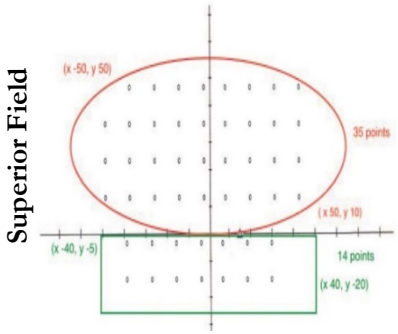
Leicester Peripheral Field Test (LPFT)

- The Leicester Peripheral Field Test, a customized visual field test designed specifically to assess ptosis, was performed using an HVF analyzer
- Thirty-five points (in the 4 rows at or above 10° from fixation) were tested in the superior field
- LPFT score was tallied based on the total number of points seen in the top 4 rows on the LPFT

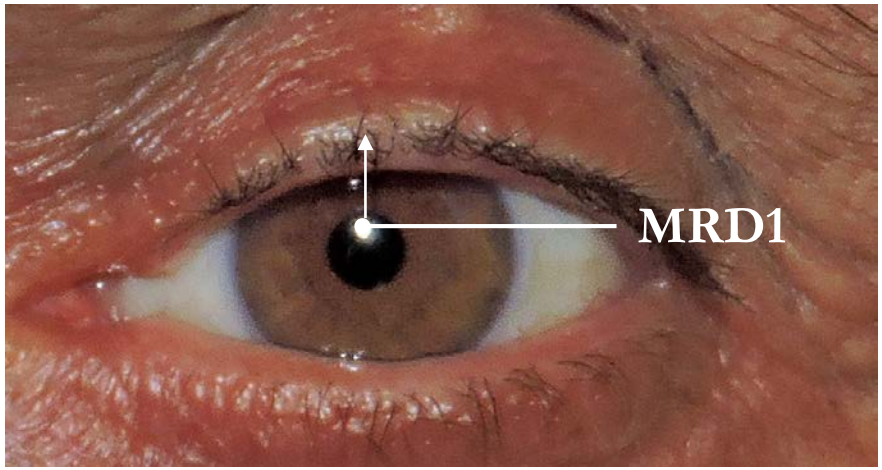
Marginal Reflex Distance (MRD1)

- MRD1 is the distance between the center of the pupillary light reflex and the upper eyelid margin with the eye in primary gaze
- A light is directed at the patient's eyes and a measurement in millimeters is taken from the light on the patient's cornea to the center of the upper eyelid margin
- Normal MRD1 is 4-5 mm

Traditional Visual Field Machine



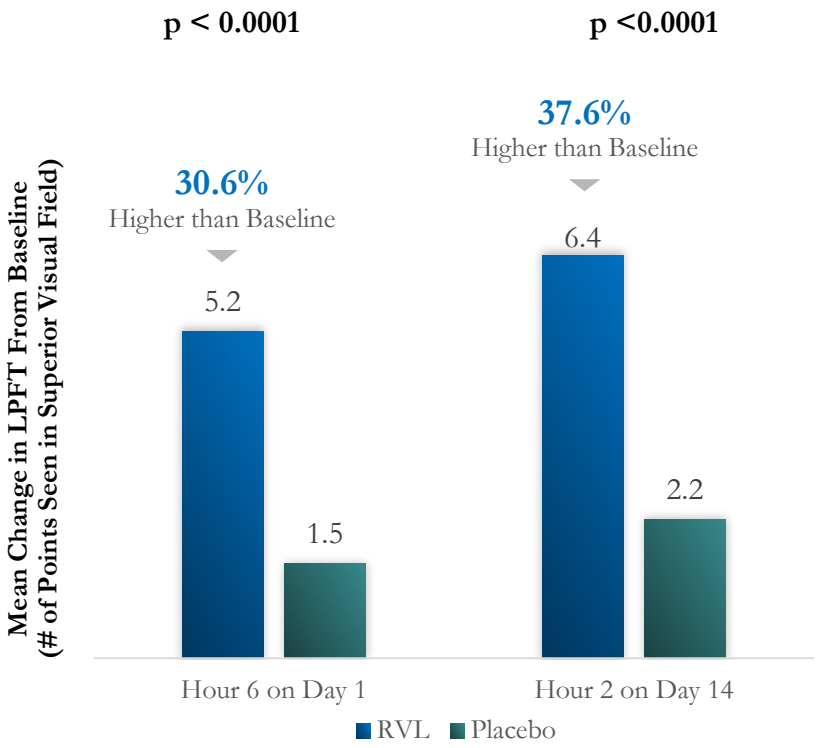
LPFT Field Test



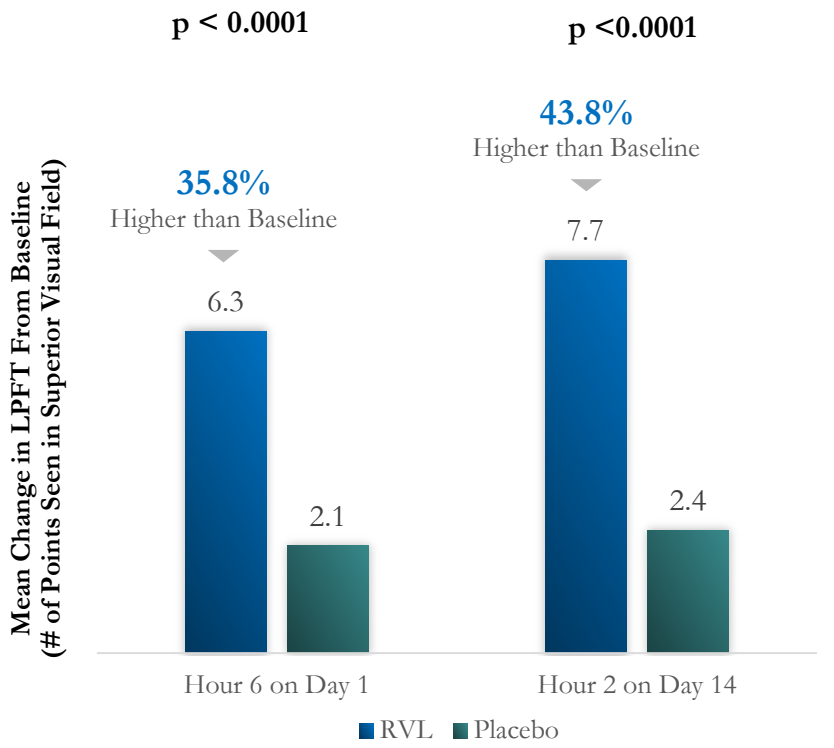
Efficacy: Mean Change in LPFT from Baseline

RVL-1201 demonstrated consistent and durable improvement in visual field vs. placebo across both pivotal fficacy studies

Study 201



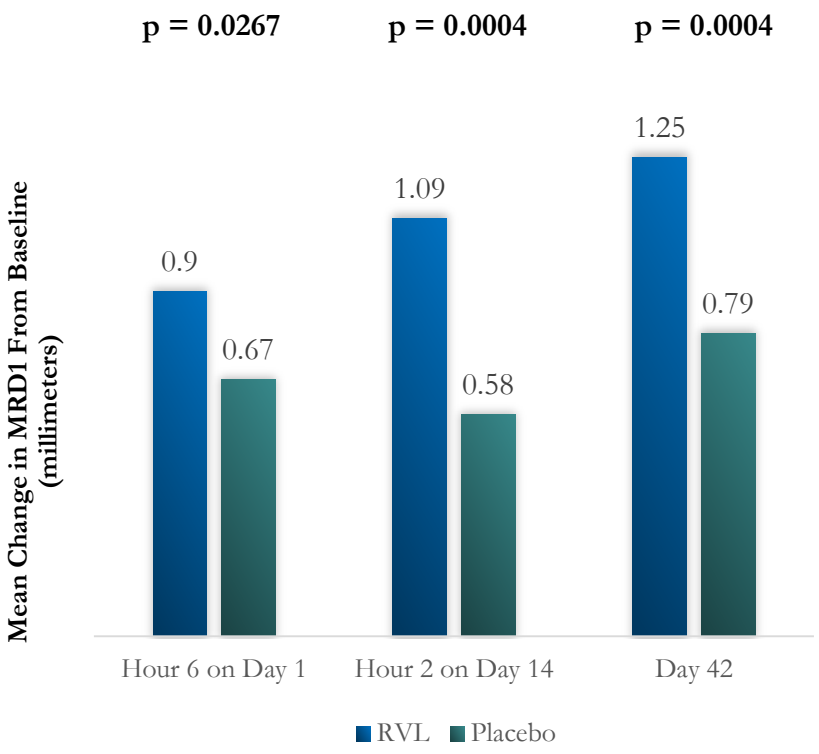
Study 202



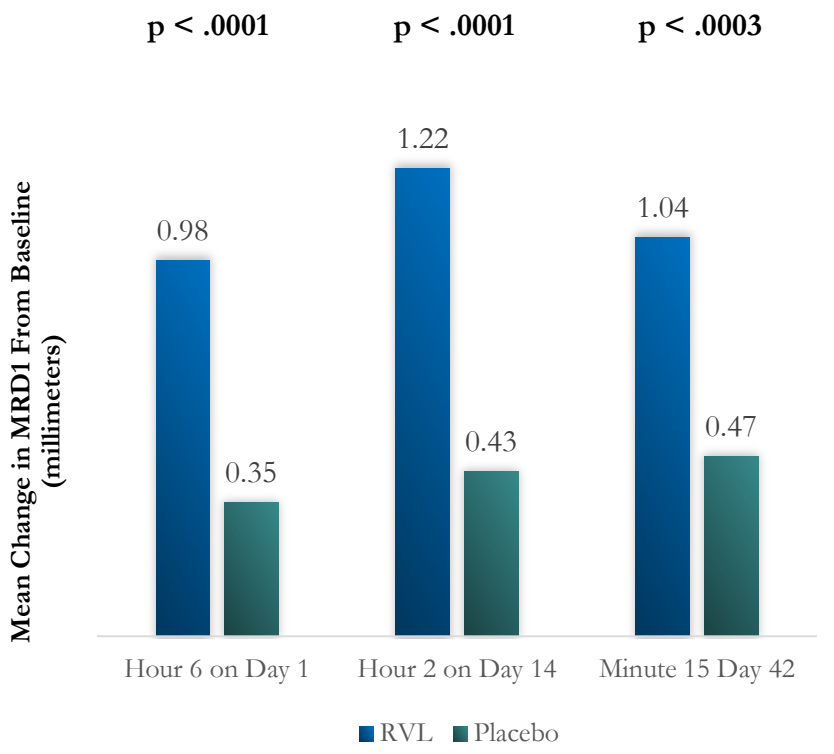
Efficacy: Mean Change in MRD1 from Baseline

Pivotal studies further support significant improvement in eyelid lift vs. placebo

Study 201



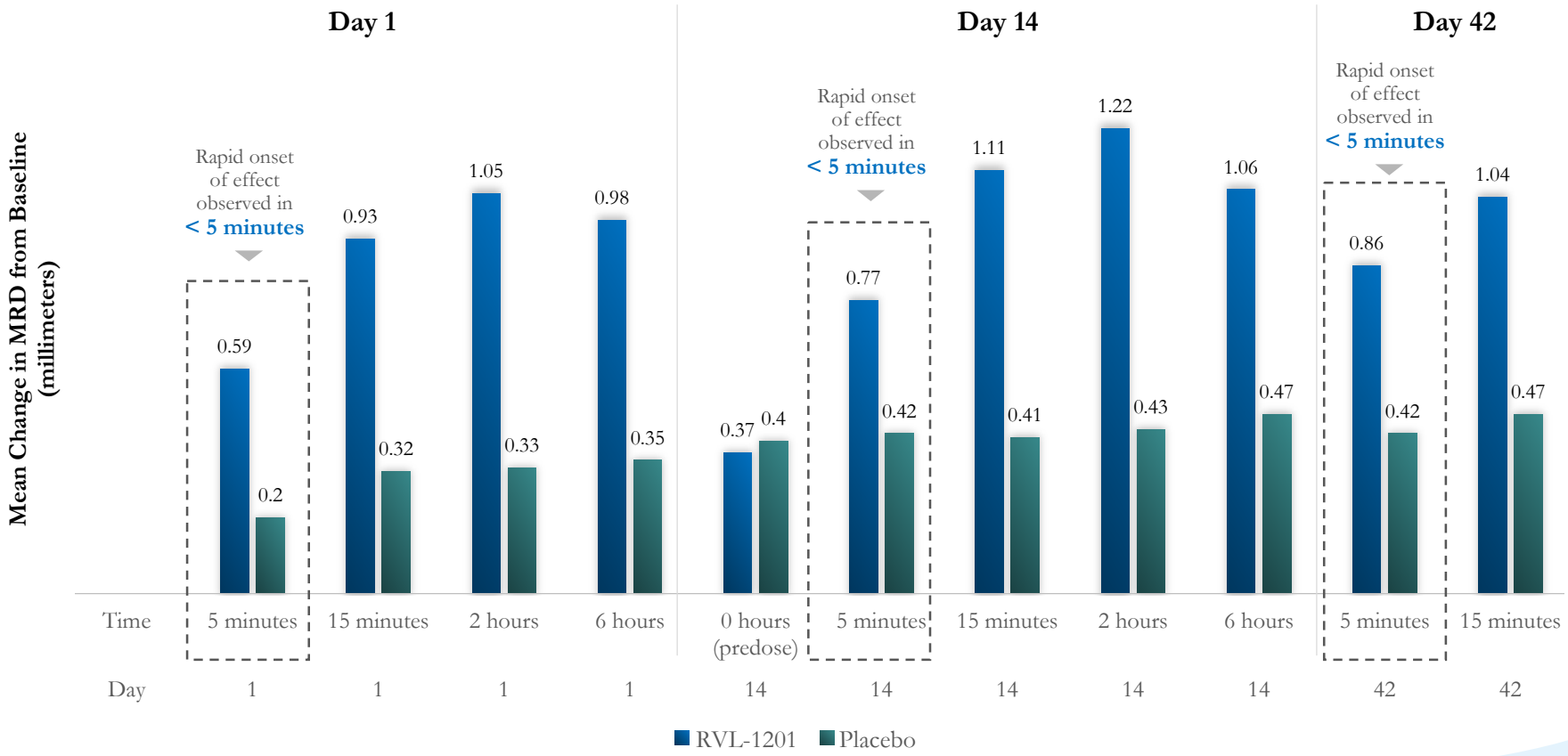
Study 202



Efficacy: Mean Change in MRD1 from Baseline

Statistically significant increase in MRD1 for all post-dose measurements, with rapid onset of effect within 5 minutes

Study 202



Phase III Patient Photos

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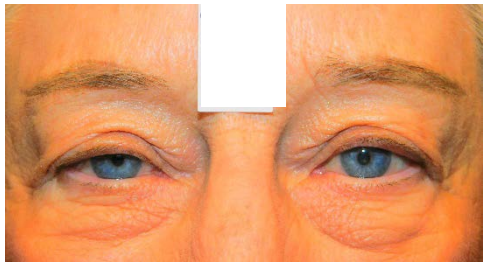
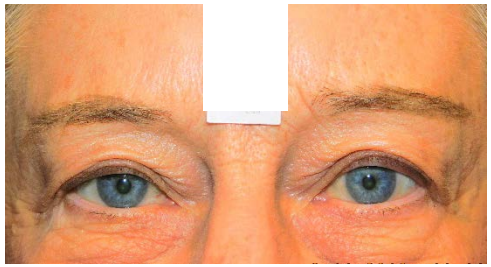
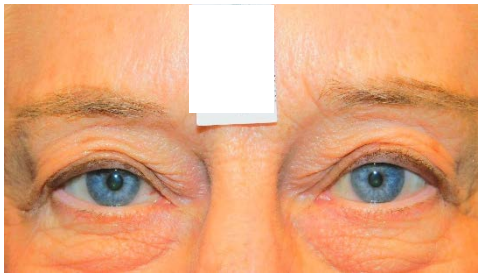
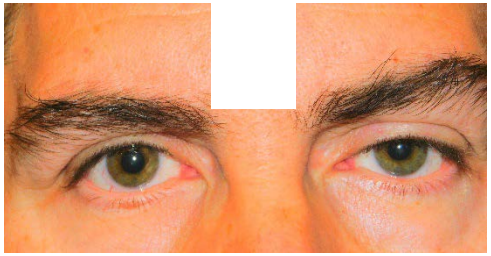
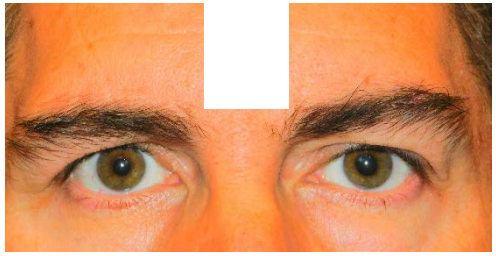
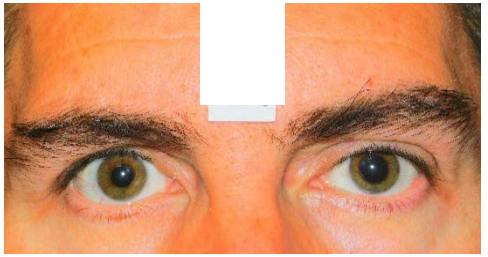
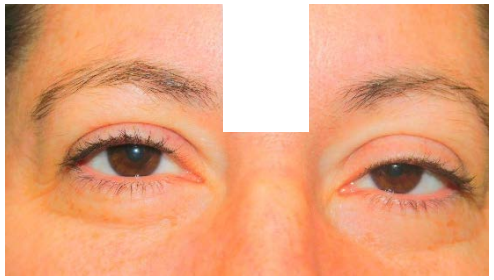
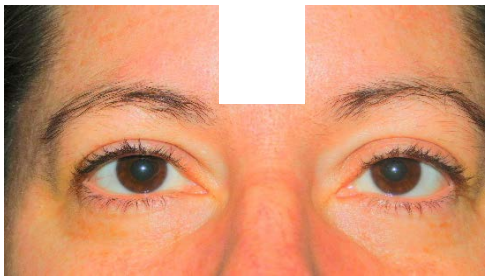
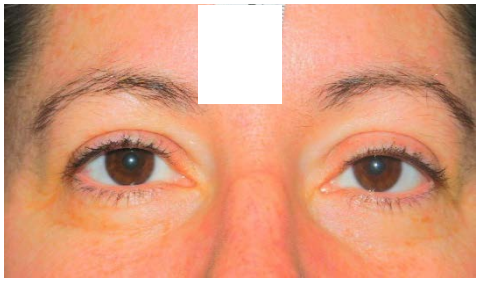
Visual Evidence of Effect Demonstrated in Clinical Trials

Pre-Dose	Hour 2	Hour 6
		
		
		

Clinical Trial Safety Profile

Well-established side effect profile comparable to vehicle in controlled clinical studies

	Treatment-Emergent Adverse Events	
	RVL-1201 (n = 375)	Vehicle (n = 193)
Number of Subjects Reporting any TEAEs[1], n (%)	117 (31.2)	59 (30.6)
Number of TEAEs reported, n	237	112
Subjects Reporting TEAEs by Maximum Intensity, n (%)		
Mild	88 (23.5)	41 (21.2)
Moderate	24 (6.4)	18 (9.3)
Severe	5 (1.3)	0 (0)
Subjects Reporting Any TEAEs Leading to Discontinuation from the Study, n (%)	8 (2.1)	2 (1.0)
Subjects Reporting any TESAEs[2]	4 (1.1)	1 (0.5)

	Treatment-Emergent Adverse Events	
	RVL-1201 (n = 375)	Vehicle (n = 193)
Eye Disorders, n (%)	74 (19.7)	26 (13.5)
Punctate Keratitis	13 (3.5)	4 (2.1)
Conjunctival Hyperemia	11 (2.9)	1 (0.5)
Dry Eye	9 (2.4)	1 (0.5)
Vision Blurred	8 (2.1)	0 (0)
Eye Irritation	4 (1.1)	0 (0)
Eye Pruritus	1 (0.3)	3 (1.6)

1. Treatment-Emergent Adverse Events
2. Treatment-Emergent Severe Adverse Events

Additional Safety & Tolerability Insights

12-week safety study 203 highlights favorable tolerability and compliance profile [1]

- **Compliance Rate: 98.96%** mean treatment compliance rate for RVL-1201 vs. 96.7% mean treatment compliance in vehicle
- **Comfortability: 92%** of patients reported no discomfort associated with application of RVL-1201 vs. 93% in the vehicle group
- **Pupil Diameter:** No clinically significant shifts in pupil diameter from baseline were observed in either the RVL-1201 or vehicle treatment groups
- **Visual Acuity:** No clinically significant shifts in Snellen visual acuity from baseline were observed in either the RVL-1201 or vehicle treatment groups
- **Intraocular Pressure:** No clinically significant shifts in IOP from baseline were observed in either the RVL-1201 or vehicle treatment groups

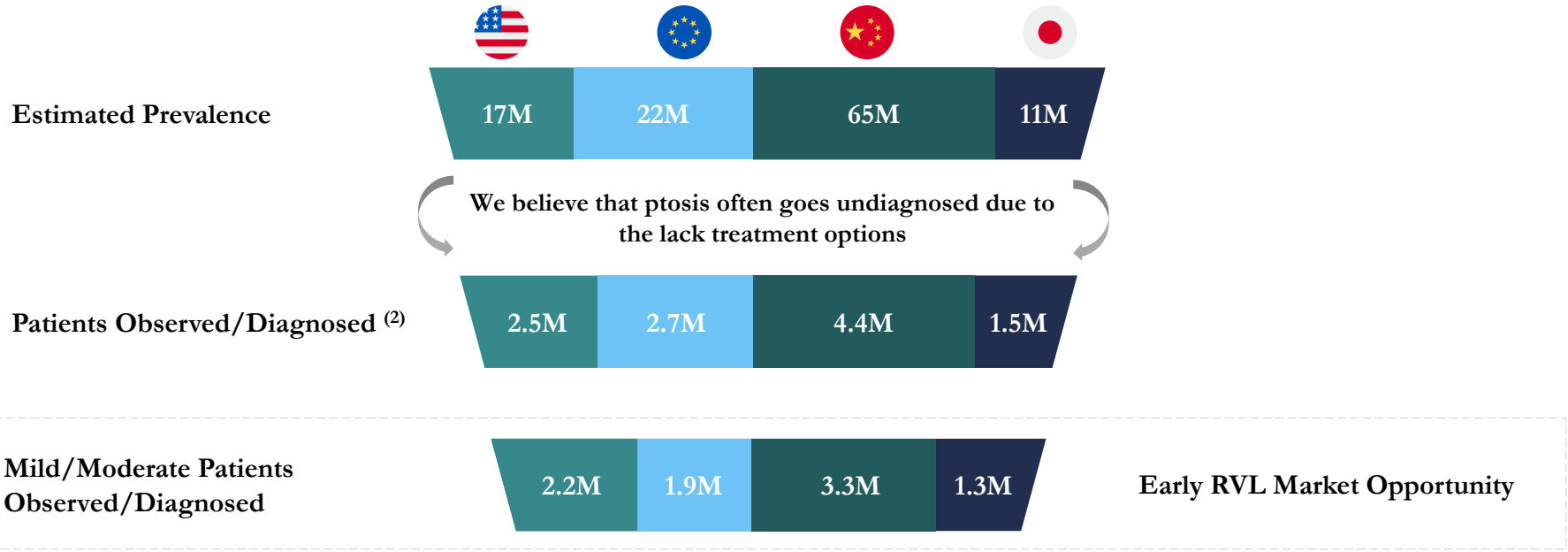
1. Phase 3 Study 203 was a 12-week safety study comprising RVL-1201 (n=157) and vehicle (n=77)

Acquired Ptosis

A Large Global Opportunity

Potential major breakthrough treatment in common eyelid disorder; significant worldwide commercial opportunity

Based on company estimates: (1)



The clinical definition of "mild ptosis" is varied; we estimate that the actual number of adults with MRD-1 <4mm may be significantly greater than illustrated

(1) While no robust epidemiological studies exploring the prevalence of blepharoptosis in the markets outlined above, we believe it is a common condition affecting millions of people worldwide Although we believe the numbers presented in the graphic above reflect the approximate potential market opportunity based on our research and available market information, there is no assurance that the market opportunity will not differ from such numbers and such difference could be material.

(2) Estimate includes patients who have been formally diagnosed and/or patients who have discussed their condition with a doctor

Early US Market Opportunity

Expansive Potential US Patient Audience

Current Clinical Stack

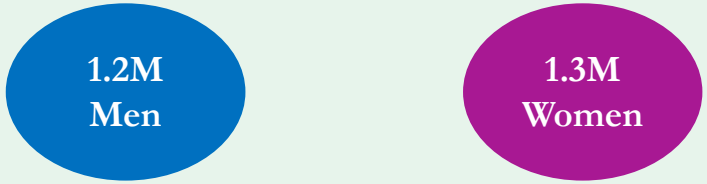
Patient Description

Patients formally diagnosed by Eye Care Professionals

Ptosis Patients

+

Clinically Diagnosed Ptosis Patients



RVL-1201 positioned to meet the medical needs of millions across the US

Launch Strategy

Osmotica Pharmaceuticals

Building a Strong Foundation

- **Establish credible and lasting relationships between RVL Pharmaceuticals Inc. and the ECP Community**
  - Build upon early KOL enthusiasm and support
  - Robust field force training & preparation (Expand tools to align with 'new normal')

- **Anchor early experience within a foundational group of ECPs to build momentum and reinforce value proposition (UP – "Uncovering Ptosis")**
  - Exclusive access to select group of advocates
  - Provide education and impactful resources that enhance patient/prescriber awareness
  - Enable seamless diagnosis and treatment of ptosis
    - Establish a call to action rooted in RVL-1201's clinical safety and efficacy
  - Deliver the impact of patient satisfaction and results

UP kit containing sample supply and other educational material

- **Pricing & Access strategy that bridges value proposition for ECP & patient**
  - Providers as partners – self-pay commercial flexibility
  - Consistent, seamless, and transparent experience from Rx to fulfillment for provider and patient