

Corporate Presentation

December 2021

NASDAQ: OTLK

outlooktherapeutics.com



Enhancing the standard of care for retinal disorders by working to achieve the first FDA approval for bevacizumab in ophthalmology



Disclaimer

This presentation contains forward-looking statements about Outlook Therapeutics, Inc. ("Outlook Therapeutics" or the "Company") based on management's current expectations, which are subject to known and unknown uncertainties and risks. Words such as "anticipated," "initiate," "expect," "intend," "plan," "believe," "seek," "estimate," "may," "will," and variations of these words or similar expressions are intended to identify forward-looking statements. These forward-looking statements include, among others, statements about ONS-5010's potential as the first FDA-approved ophthalmic formulation of bevacizumab-vikg, our expectations for ONS-5010 market exclusivity, the timing of BLA submission and commercial launch of ONS-5010, ONS-5010's ability to replace and address issues with off-label use of Avastin, other drug candidates in development, commercial drivers for ONS-5010 and its potential, the success of ongoing ONS-5010 trials for wet AMD and planned trials for ONS-5010 for DME and BRVO. Our actual results could differ materially from those discussed due to a number of factors, including, but not limited to, the risks inherent in developing pharmaceutical product candidates, conducting successful clinical trials, and obtaining regulatory approvals, as well as our ability to raise additional equity and debt financing on favorable terms, among other risk factors. These risks are described in more detail under the caption "Risk Factors" in our Annual Report on Form 10-K and other filings with the Securities and Exchange Commission ("SEC"). Moreover, Outlook Therapeutics operates in a very competitive and rapidly changing environment. New risks emerge from time to time. It is not possible for our management to predict all risks, nor can we assess the impact of all factors on our business or the extent to which any factor, or combination of factors, may cause actual results to differ materially from those contained in any forward-looking statement. Moreover, any such risks may be heightened as a result of the ongoing COVID-19 pandemic. In light of these risks, uncertainties and assumptions, the forward-looking statements discussed in this presentation may not occur and actual results could differ materially and adversely from those anticipated or implied.

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Leadership Team: Global Ophthalmic Development and Commercial Launch Excellence



C. RUSSELL TRENARY III President, CEO and Director INNFOCUS Contrology Contrology Control Series Control Control Control Series Control Control Control Series Control Control



LAWRENCE KENYON Chief Financial Officer and Director





JEFF EVANSON Chief Commercial Officer



TERRY DAGNON Chief Operating Officer

RANDY THURMAN Executive Chairman of the Board



MARK HUMAYUN, MD, PhD Medical Advisor





Investment Highlights

ONS-5010 (bevacizumab-vikg)¹ Targeting \$13.1 Billion Global Ophthalmic Anti-VEGF Market²

Differentiated Drug Product

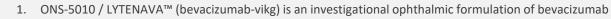
- Designed to meet stringent standards required for FDA ophthalmic approval
- Eliminates risks associated with off-label repackaged bevacizumab, including potential impurities and particulates from legacy repackaging processes
- Delivery through a convenient pre-filled syringe

Potential for 1st FDA Approved Bevacizumab

- Compelling pivotal data supports U.S. FDA BLA submission, targeted for calendar Q1 2022
- Launch anticipated Q1 2023
- Provide an economically elegant anti-VEGF solution for patients, payers and doctors

Attractive Market Opportunity

- Over 50% of the U.S. market available for conversion to ONS-5010 representing billions in yearly sales
- 12-years US regulatory exclusivity expected
- Label expansion opportunity into DME and BRVO



2. Guidehouse Triangulation of Global Data, Market Scope and Investor Forecasts (2020)

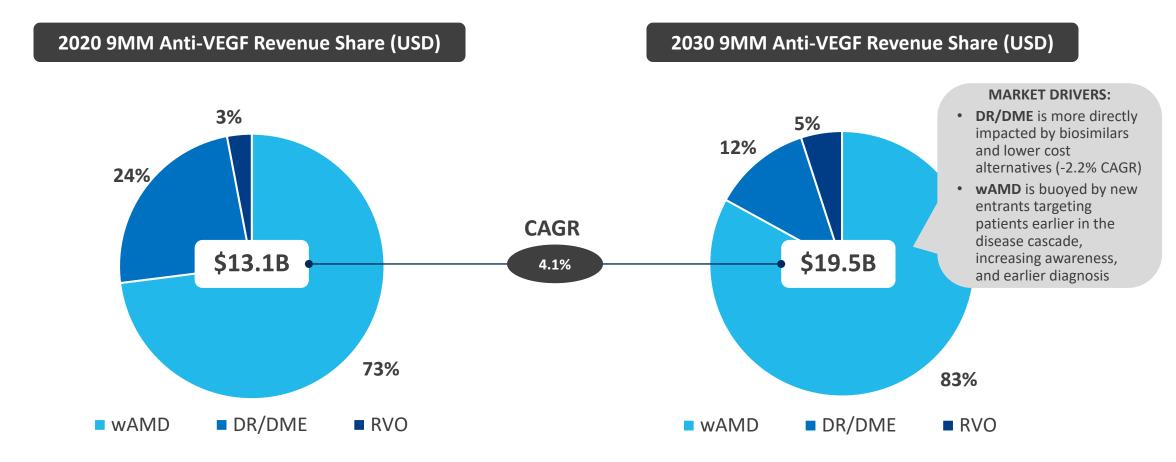
AMD = Age-Related Macular Degeneration; DME = Diabetic Macular Edema ; BRVO = Branch Retinal Vein Occlusion

Wet AMD Landscape Current and Future



Targeting Large and Growing Ophthalmic Markets

ONS-5010, If Approved, Will Be a Significant Therapy In the Retinal Anti-VEGF Market, Currently Estimated To Be In Excess of \$13.1 Billion Worldwide



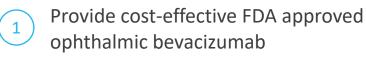


Sources: Guidehouse Triangulation of Global Data, Market Scope and Investor Forecasts (2020) AMD = Age-Related Macular Degeneration; DME = Diabetic Macular Edema ; BRVO = Branch Retinal Vein Occlusion

Unapproved Bevacizumab Represents 50% of U.S. Wet AMD Market Injections

Anti-VEGF U.S. Market Share in Wet AMD ¹					
AVASTIN bevacizumab	Used Off-Label in Retina from formulation designed for IV use		50%		
Affiberceți Injection For Intravitreal Injection		36%			
	12%				
PEGAPTANIB SODIUM INJECTION	1%				
Visudyne" verteporfin for injection	1%				

Expected Drivers to Compete Across All Ophthalmic Anti-VEGF Therapeutics, if Approved by FDA



Become first-line "step-edit" drug of choice



Penetrate EU and developing markets



2

Compounded Bevacizumab Compared to FDA Approved

Ophthalmic Solution Requirement	Off-Label Compounded Repackaged IV Solution	FDA Approved Ophthalmic Solution for Intravitreal Injection
Sterile USP <71>1	?	Yes
FDA approved ophthalmic package consistent with USP <771> ¹	No	Yes
FDA reviewed stability data supporting shelf life ^{2,3}	No	Yes
Particulates per USP <789> for ophthalmic solutions ¹	?	Yes
pH FDA approved and consistent with USP <771> ^{1,2,3}	No	Yes
Potency FDA approved specifications for shelf life ^{2,3}	No	Yes
Osmolarity specification for ophthalmic solution ^{2,3}	No	Yes
Bacterial endotoxins USP <85> ¹	?	Yes
GMP ^{2,3}	?	Yes



1: USP general Chapter <771> OPHTHALMIC PRODUCTS—QUALITY TESTS USP40-NF35, second supplement, June 1, 2017; 2: Aldrich, Dale S., Bach, Cynthia M., Brown, William, Chambers, Wiley, Fleitman, Jeffrey, Hunt, Desmond, Marques, Margareth R. C., Mille, Yana, Mitra, Ashim K., Platzer, Stacey M., Tice, Tom, Tin, George W.; Ophthalmic Preparations USP STIMULI TO THE REVISION PROCESS Vol. 39(5) [Sept.—Oct. 2013]; 3: Missel PJ, Lang JC, Rodeheaver DP, Jani R, Chowhan MA, Chastain J, Dagnon T. Design and evaluation of ophthalmic pharmaceutical products. In: Florence, AT, Siepmann J. Modern Pharmaceutics—Applications and Advances. New York: Informa; 2009:101–189.

Unmet Medical Needs Due To Repackaged and Off-Label Use of Bevacizumab Designed for Other Specialties and Delivery Systems

Variability in Potency¹

JAMA Ophthalmology

Warning Letter

ASRS

- 81% of samples had lower protein concentrations than required
- Samples had statistically significant variations in protein concentration among samples

Safety and Sterility Adverse Events²

- Unvalidated hold times in syringes
- Patients have lost eyesight due to infections
- Multiple unapproved repackaged IV bevacizumab recalls due to unsterile compounding practices

Syringe Adverse Events³

- Variability in repackaging can lower quality of syringe products, resulting in adverse events
- Silicone oil droplets may be released from the syringe into the eye

Not Held to FDA Ophthalmic Quality Standards When Repackaged



400 mg/16 mL, single-use vial; 100 mg/4 mL, single-use vial





1: JAMA Ophthalmol. 2015 Jan;133(1):32-9. doi: 10.1001/jamaophthalmol.2014.3591; 2: Goldberg, Roger A et al. "An outbreak of streptococcus endophthalmitis after intravitreal injection of bevacizumab." American Journal of Ophthalmology vol. 153,2 (2012): 204-208.e1. doi:10.1016/j.ajo.2011.11.035; 3: ASRS Member Alert, April 2019

U.S. Law and FDA Regulations for Compounding and Repackaging

- The Food Drug and Cosmetic Act (FD&CA) and Drug Quality and Security Act of 2013 define what is legal for 503A and 503B Compounding Pharmacies.¹
 - <u>Once a drug or biologic is FDA approved and commercially available compounding is no longer authorized.</u>^{2,3,4,5}
 - 503A Compounding pharmacies are regulated by federal regulations and state laws and can only compound or repackage for individual
 prescriptions in limited quantities and cannot distribute across state lines for > 5% of business.
 - 503B Compounding pharmacies / outsourcing facilities must comply with CGMP regulations, are inspected by FDA and must adhere to reporting requirements.
 - Neither 503A nor 503B pharmacies can compound or repackage commercially available drugs unless they appear on the official FDA drug shortage list.
- "<u>Compounded drug products are not FDA-approved, which means they have not undergone FDA premarket review for safety,</u> <u>effectiveness, and quality." – FDA⁶</u>
- "The restrictions on making drugs that are essentially copies ensure that pharmacists and physicians do not compound drug products under the exemptions for patients who could use a commercially available drug product." – FDA⁶
- "Such a practice would create significant public health risks because patients would be unnecessarily exposed to drug products that have not been shown to be safe and effective and that may have been prepared under substandard manufacturing conditions." – FDA⁶

• <u>"Under the statutory scheme, only very rarely should a compounded drug product that is essentially a copy of a commercially</u> available drug product be offered to a patient." – FDA⁶



1. Food Drug and Cosmetic Act 503A snd 503B & Drug Quality and Security Act of 2013; 2. Repackaging of Certain Human Drug Products by Pharmacies and Outsourcing Facilities; Guidance for Industry; DHHS, FDA; January 2017; 3. Mixing, Diluting, or Repackaging Biological Products Outside the Scope of an Approved Biologics License Application Guidance for Industry; DHHS, FDA; January 2018; 4. Current Good Manufacturing Practice—Guidance for Human Drug Compounding Outsourcing Facilities Under Section 503B of the FD&C Act; DHHS, FDA; Draft Guidance: January 2020; 5. Compounded Drug Products That Are Essentially Copies of Approved Drug Products Under Section 503B of the Federal Food, Drug, and Cosmetic Act Guidance for Industry; DHHS, FDA: January 2018; 6. Source: <u>Compounding Laws and Policies</u> | FDA www.fda.gov

ONS-5010



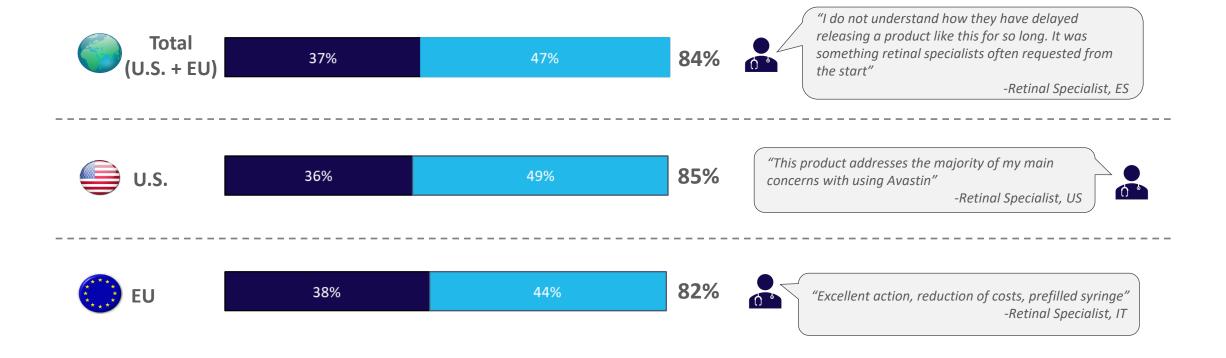
ONS-5010 Ophthalmic Bevacizumab Target Product Profile

ONS-5010 (bevacizumab-vikg)				
Patient Population	 Patients diagnosed with wet AMD, DME, or BRVO 			
Description	 Anti-VEGF bevacizumab designed for ophthalmic indications wet AMD, DME, and BRVO Known high affinity to bind to all isoforms of VEGF A 			
Dosing and Administration	 Supplied either as pre-filled ophthalmic syringe for intravitreal 1.25 mg injection administered once monthly, or in a glass vial 			
Efficacy, Safety, and AEs	 Demonstrated significant efficacy and safety in NORSE ONE, TWO, and THREE trials Comparable to data from the National Eye Institute (NEI) Comparison of Age-Related Macular Degeneration Treatments Trials (CATT) study as equivalent to LUCENTIS[®] 			



Do Physicians Want an Ophthalmic Approved Bevacizumab?

>80% of Retinal Specialists Express Interest/High Interest In an FDA-Approved Ophthalmic Bevacizumab to Treat Wet AMD, DME and BRVO

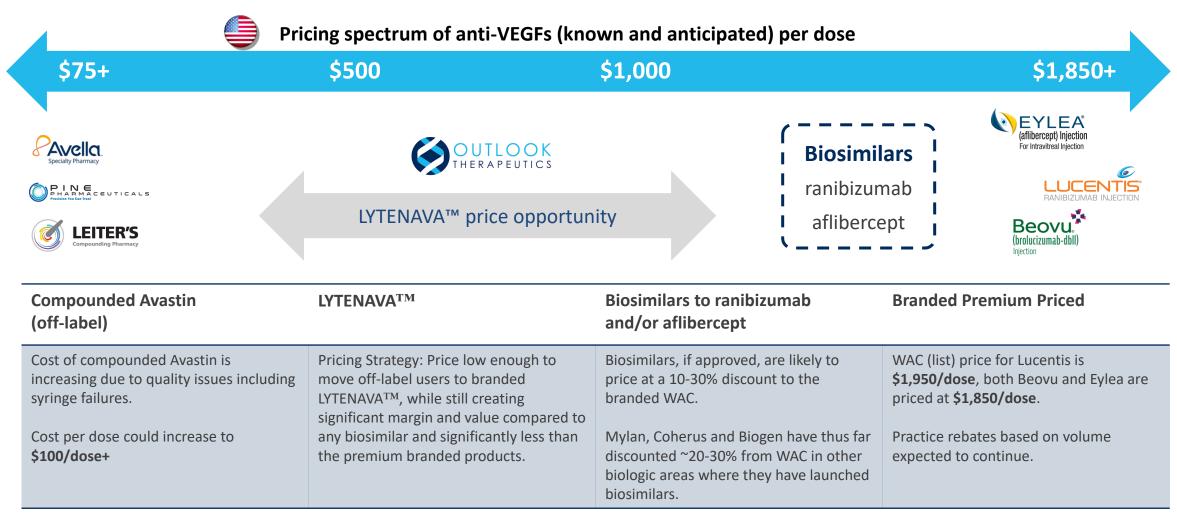




Source: Navigant Quantitative Survey (n=152), 2019, **Respondents who have interest or high interest in ONS-5010** *Other survey options not shown were "neutral, not likely to use, and not interested at all"

LYTENAVA™ Pricing Opportunity

Optimize Uptake: Compounding product prescribers while creating separation from biosimilars and other branded price points





Pathway Towards Potential FDA Approval in Wet AMD – NORSE TWO Top-Line Results Recently Unveiled

U.S. BLA Submission Targeted Calendar Q1 2022







Pivotal Trial

2nd Registration Trial

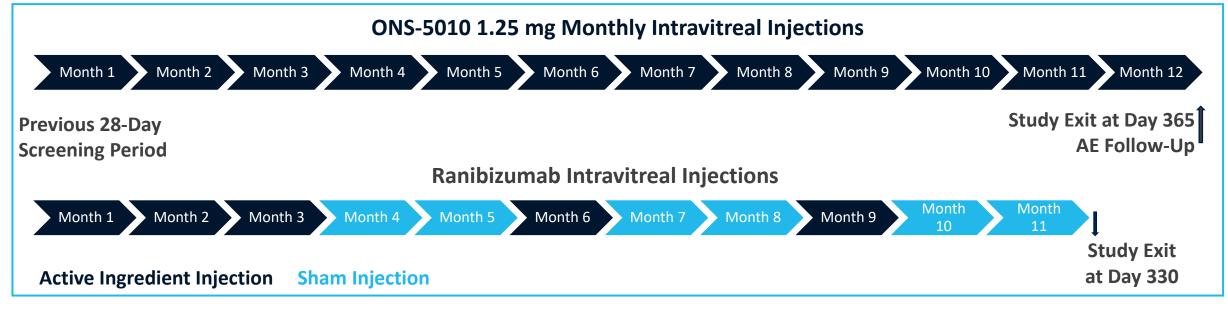
Trial Highlights:

- Randomized masked controlled trial
- ONS-5010 (bevacizumab-vikg) vs LUCENTIS[®] (ranibizumab)
- 228 patients enrolled
- Trial conducted in the United States
- Trial arms included >95% treatment-naïve patients
- Safety & efficacy data support planned U.S. BLA submission in calendar Q1 2022





12-Month Study of Safety and Efficacy of ONS-5010 in Subjects with Wet AMD Study Design and Statistical Analysis Plan Agreed to by U.S. FDA



Study Eye Characteristics

- Active, primary CNV due to wet AMD
- Treatment-naïve
- BCVA: 20/50 20/320

Key Study Outcomes

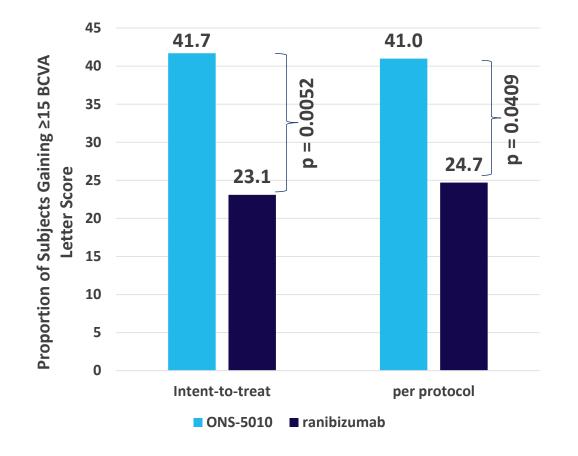
- Proportion of subjects who gain ≥15 letters in BCVA
- Mean change in BCVA from baseline to Month 11
- Frequency and incidence of AEs



Primary Endpoint Met with Statistically Significant, Clinically Relevant Results¹

Characteristic	Statistic	ONS-5010 (n=113)		Ranibizumab (n=115)	
Intent-to-Treat Pop.					
Number of Subjects	n/N (%)	45/108 (41.7) 24/104 (23		04 (23.1)	
Risk Difference	0.1859				
95% CI	(0.0442,0.3086)				
p-value		0	0.0052		
Per Protocol Pop.					
Number of Subjects	n/N (%)	34/83 (41.0) 18/73 (24.		73 (24.7)	
Risk Difference 0.1631					
95% CI (0.0120, 0.3083))	
p-value 0.0409					

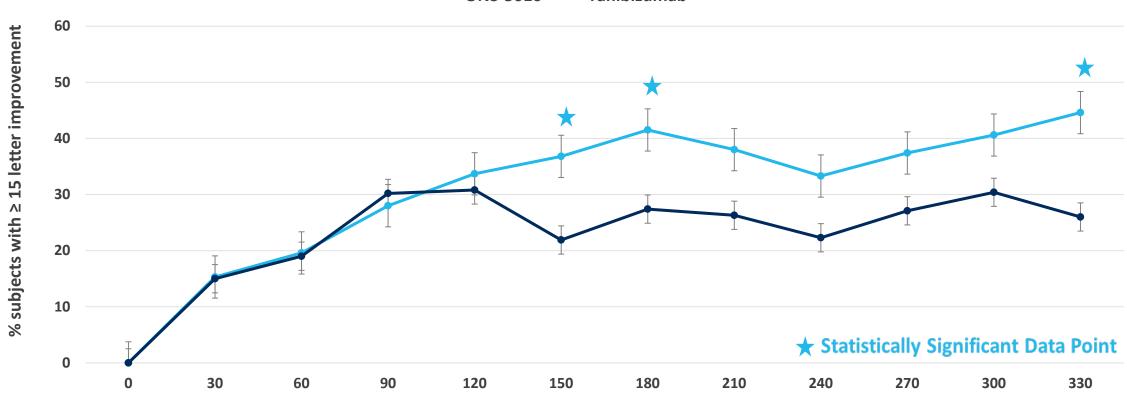
Difference in % Subjects Gaining 3 Lines Vision





ONS-5010 Rapid Onset of Action with Sustained Significance Over Time

≥ 15 Letter Gainers (± SE) Over Time



Days

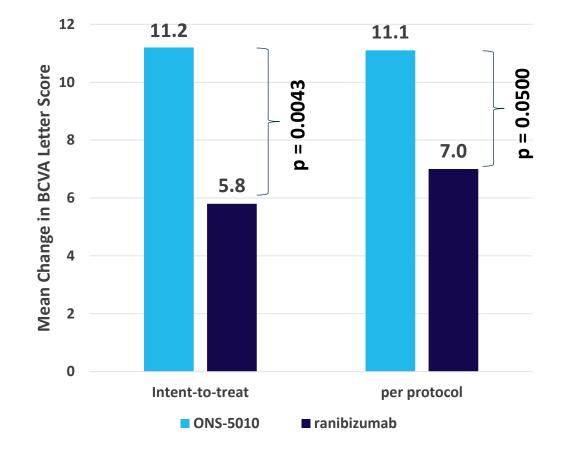
---ONS-5010 ---ranibizumab



Key Secondary Endpoints Met with Highly Statistically Significant, Clinically Relevant Results

Characteristic	Statistic	ONS-5010 (n=113)	Ranibizumab (n=115)	
BCVA Score Change from Baseline to Month 11 (ITT)	n	104	96	
	Mean (SD)	11.2 (12.19)	5.8 (14.80)	
		0.0043		
p-value		0.00	043	
p-value BCVA Score Change from Baseline to Month 11 (PP)	n	0.0	68	
BCVA Score Change from	n Mean (SD)			

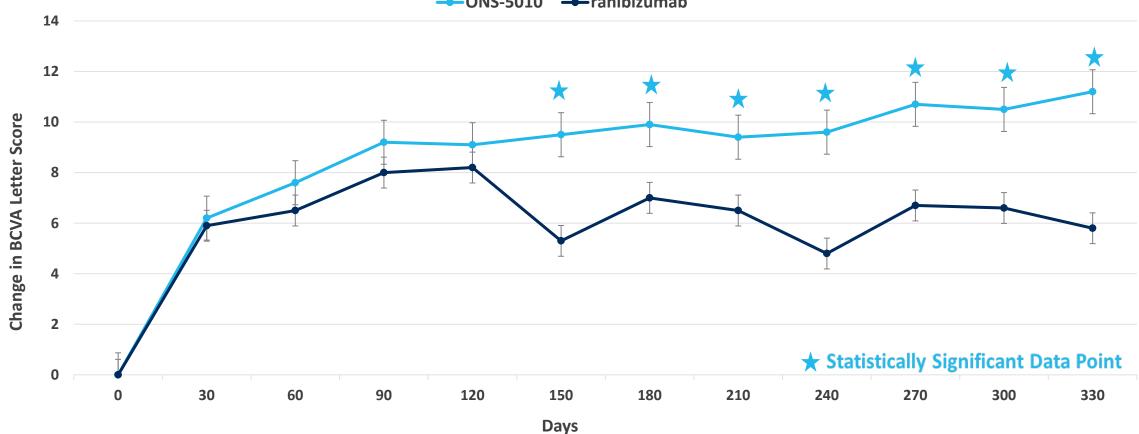
Mean Change in BCVA





ONS-5010 Rapid Onset of Action with Sustained NORSE **Significance Over Time** TWO

Mean (± SE) Change in BCVA Over Time



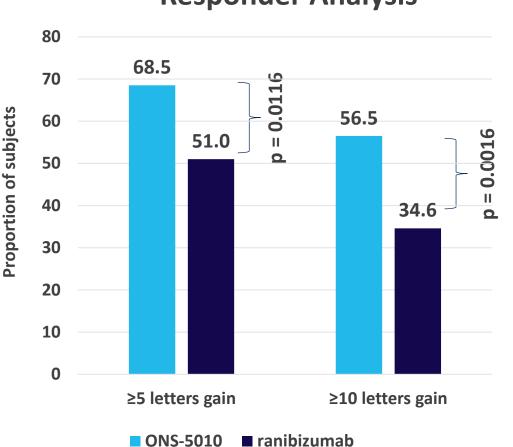




NORSE Statistically Significant, Clinically Relevant Secondary Endpoints

Characteristic	Statistic	ONS-5010 (n=113)	Ranibizumab (n=115)			
Subjects Gaining ≥5 letters						
Number of Subjects	n/N (%)	74/108 (68.5)	53/104 (51.0)			
Risk Difference		0.1756				
95% CI	(0.0315,0.3052)					
p-value			0116			
Subjects Gaining ≥10 letters						
Number of Subjects	n/N (%)	61/108 (56.5)	36/104 (34.6)			
Risk Difference	0.2187					
95% CI		(0.0726,0.3487)				
p-value		0.0	0016			

68.5% (p = 0.0116) ONS-5010 subjects gained \geq 5 letters of vision 56.5% (p = 0.0016) ONS-5010 subjects gained \geq 10 letters of vision 41.7% (p = 0.0052) ONS-5010 subjects gained \geq **15 letters of vision**



Responder Analysis



Safety Results: Consistent with Previously Reported Results from NORSE ONE and NORSE THREE

Only One ONS-5010 Ocular Inflammation AE Reported in NORSE TWO (Iritis)

Characteristic	Statistic	ONS-5010 (n=113)	Ranibizumab (n=115)	Overall (n=228)
≥ 1 Adverse Event	n (%)	85 (75.2)	85 (73.9)	170 (74.6)
≥ 1 ocular Adverse Event	n (%)	59 (52.2)	61 (53.0)	120 (52.6)
≥ 1 non-ocular Adverse Event	n (%)	56 (49.6)	52 (45.2)	108 (47.4)
≥ 1 Serious Adverse Event	n (%)	14 (12.4)	16 (13.9)	30 (13.2)
≥ 1 ocular Serious Adverse Event	n (%)	1 (0.9)	0	1 (0.4)
≥ 1 non-ocular Serious Adverse Event	n (%)	13 (11.5)	16 (13.9)	29 (12.7)



Safety Results: Frequency and Incidence of Ocular AEs > 3% Low Incidence of Ocular AEs, Despite More Injections in ONS-5010 Arm

Statistic	ONS-5010 (n=113)	Ranibizumab (n=115)	Overall (n=228)
n (%)	51 (45.1)	48 (41.7)	99 (43.4)
n (%)	6 (5.3)	3 (2.6)	9 (3.9)
n (%)	10 (8.8)	3 (2.6)	13 (5.7)
n (%)	4 (3.5)	1 (0.9)	5 (2.2)
n (%)	2 (1.8)	5 (4.3)	7 (3.1)
n (%)	7 (6.2)	1 (0.9)	8 (3.5)
n (%)	0	4 (3.5)	4 (1.8)
n (%)	4 (3.5)	6 (5.2)	10 (4.4)
n (%)	3 (2.7)	4 (3.5)	7 (3.1)
n (%)	4 (3.5)	14 (12.2)	18 (7.9)
n (%)	4 (3.5)	2 (1.7)	6 (2.6)
n (%)	4 (3.5)	1 (0.9)	5 (2.2)
	n (%) n (%) n (%) n (%) n (%) n (%) n (%) n (%) n (%) n (%)	Statistic $(n=113)$ n (%)51 (45.1)n (%)6 (5.3)n (%)10 (8.8)n (%)4 (3.5)n (%)2 (1.8)n (%)7 (6.2)n (%)0n (%)4 (3.5)n (%)3 (2.7)n (%)4 (3.5)n (%)4 (3.5)n (%)4 (3.5)n (%)4 (3.5)	Statistic $(n=113)$ $(n=115)$ n (%)51 (45.1)48 (41.7)n (%)6 (5.3)3 (2.6)n (%)10 (8.8)3 (2.6)n (%)4 (3.5)1 (0.9)n (%)2 (1.8)5 (4.3)n (%)7 (6.2)1 (0.9)n (%)04 (3.5)n (%)04 (3.5)n (%)3 (2.7)4 (3.5)n (%)3 (2.7)4 (3.5)n (%)4 (3.5)14 (12.2)n (%)4 (3.5)2 (1.7)

Only One ONS-5010 Ocular Inflammation AE Reported in All Three ONS-5010 Studies



NORSE ONE and NORSE THREE Results



Demonstrated anticipated safety and efficacy signals consistent with previously published results for ophthalmic use of bevacizumab

Trial Highlights:

- Desired proportion of 3-line visual acuity gainers achieved
- Desired mean gain in visual acuity achieved
- Zero ocular inflammation observed
- Safety was comparable to published bevacizumab studies, such as CATT



Positive safety profile reinforces previously reported safety data for ONS-5010 (bevacizumab-vikg)

Trial Highlights:

- Provided adequate number of patient exposure required for BLA submission
- No unexpected safety trends
- Zero cases of ocular inflammation



NORSE SEVEN Pre-Filled Syringe

Vials Versus Pre-Filled Syringe



Trial Highlights:

- 3-month study to compare the safety of ONS-5010 in vials versus pre-filled syringe
- Enrolling ~120 subjects with visual impairment due to retinal disorders
 - Wet AMD
 - BRVO
 - DME



Manufacturing and Regulatory Progress Towards Commercialization



Manufacturing

Best-in-class cGMP manufacturing partners



Pre-Filled Syringes

Supply agreement for a convenient pre-filled ophthalmic syringe



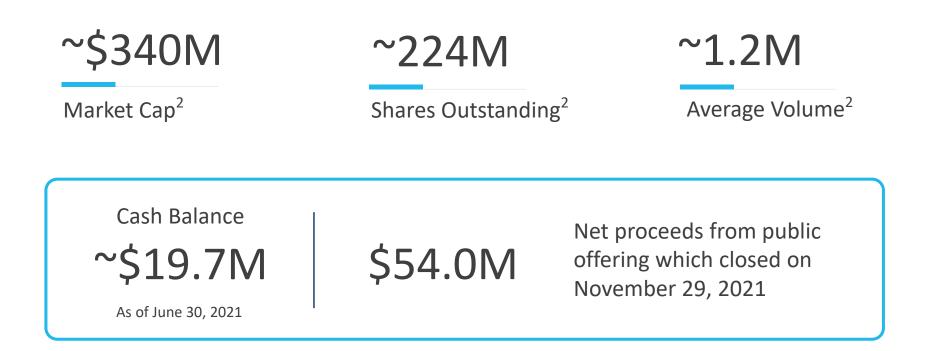
Regulatory

Achieved clinical requirements agreed upon with the FDA



Financial Highlights NASDAQ: OTLK

Sufficient capital through the anticipated approval of the ONS-5010 BLA expected in the first calendar quarter of 2023¹





The Outlook Therapeutics Opportunity for Patients, Physicians, and Payers

Mission is to enhance the standard of care

Plan is to be the first FDA approved bevacizumab in ophthalmology

Market opportunity is billions in yearly sales with potential for significant momentum upon approval

Data are compelling and statistically significant

Aim is to launch directly in the U.S. and consider OUS licensing



<mark>ГР</mark>

Company Summary

- Targeting \$13.1 billion global ophthalmic anti-VEGF market¹
 - Initial U.S. target segment worth potentially billions in yearly revenue are served by compounding pharmacies which by law should give way to Outlook Therapeutics' ONS 5010, if FDA approved
 - Potential for first FDA approved ophthalmic formulation of bevacizumab
 - U.S. FDA BLA submission targeted for calendar Q1 2022 with anticipated approval to follow 9-12 months later
 - Sufficient capital through the anticipated approval of the ONS-5010 BLA expected in the first calendar quarter of 2023
 - Management team with proven ophthalmic commercial launch expertise

