

Corporate Presentation

June 2022

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



LAWRENCE KENYON Chief Financial Officer and Director



JEFF EVANSON Chief Commercial Officer



 TERRY DAGNON

 Chief Operations Officer

 U NOVARTIS
 Johnson Johnson

 Alcon
 DOHMEN

RANDY THURMAN Executive Chairman of the Board



MARK HUMAYUN, MD, PhD Medical Advisor





Investment Highlights

Targeting \$13.1 Billion Global Ophthalmic Anti-VEGF Market²

Differentiated Drug Product

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

Potential for 1st FDA Approved Bevacizumab

- Compelling pivotal data support U.S. FDA BLA submission targeted Sept. 2022
- Launch anticipated Q4 2023, if approved
- 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)

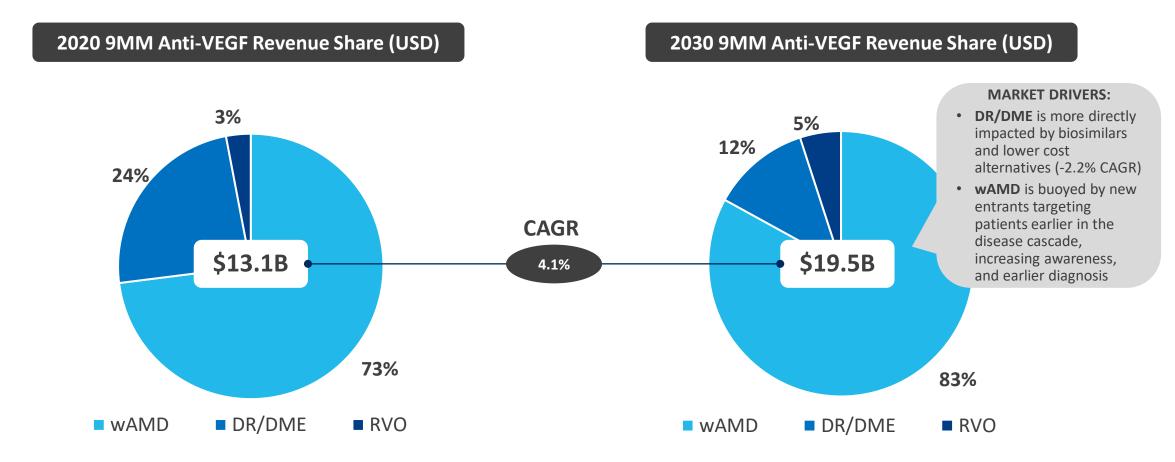
AMD = Age-Related Macular Degeneration; DME = Diabetic Macular Edema ; BRVO = Branch Retinal Vein Occlusion

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



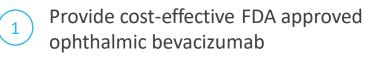


Sources: Guidehouse Triangulation of Global Data, Market Scope and Investor Forecasts (2020) AMD = Age-Related Macular Degeneration; DME = Diabetic Macular Edema ; BRVO = Branch Retinal Vein Occlusion

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%		
(aflibercept) Injection For Intravitreal Injection		36%			
	12%				
	1%				
Visudyne" verteportin 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

Public Health Concern 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
 - Once a drug or biologic is FDA approved and commercially available compounding is no longer authorized.^{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 | FDA www.fda.gov</u>

ONS-5010

Target submission of U.S. FDA BLA for the treatment of wet AMD by September 2022



ONS-5010 Ophthalmic Bevacizumab Target Product Profile

	ONS-5010 (bevacizumab-vikg) Investigational Therapy				
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	 NORSE TWO demonstrated significant efficacy and safety, and when combined with NORSE ONE and NORSE THREE provides the necessary registration database. These ONS-5010 data when taken as a whole continue to be consistent with previously published results for bevacizumab. 				



FDA Approval Requirements vs Compounded Bevacizumab

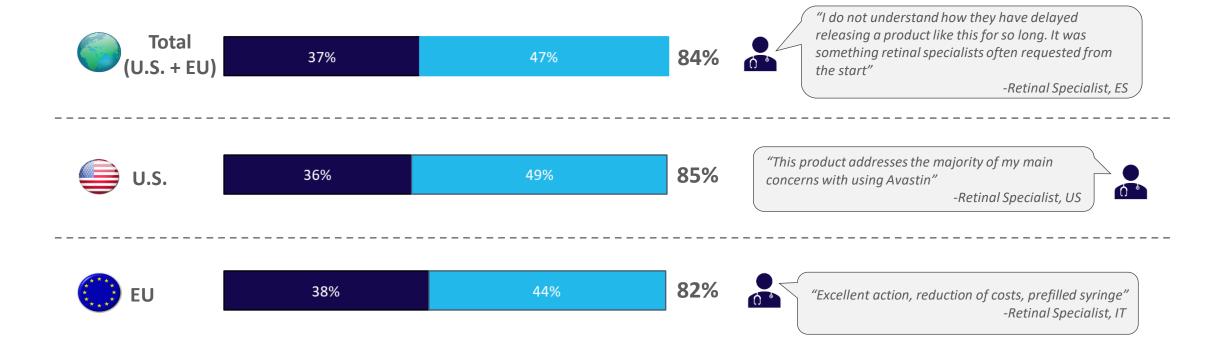
Ophthalmic Solution Requirement	Off-Label Compounded Repackaged IV Solution	FDA Approved Ophthalmic Solution for Intravitreal Injection
Sterile USP <71>1	?	Yes
FDA approved ophthalmic package consistent with USP <771>1	No	Yes
FDA reviewed stability data supporting shelf life ^{2,3}	No	Yes
Particulates 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.

Do Physicians Want an Ophthalmic Approved Bevacizumab?

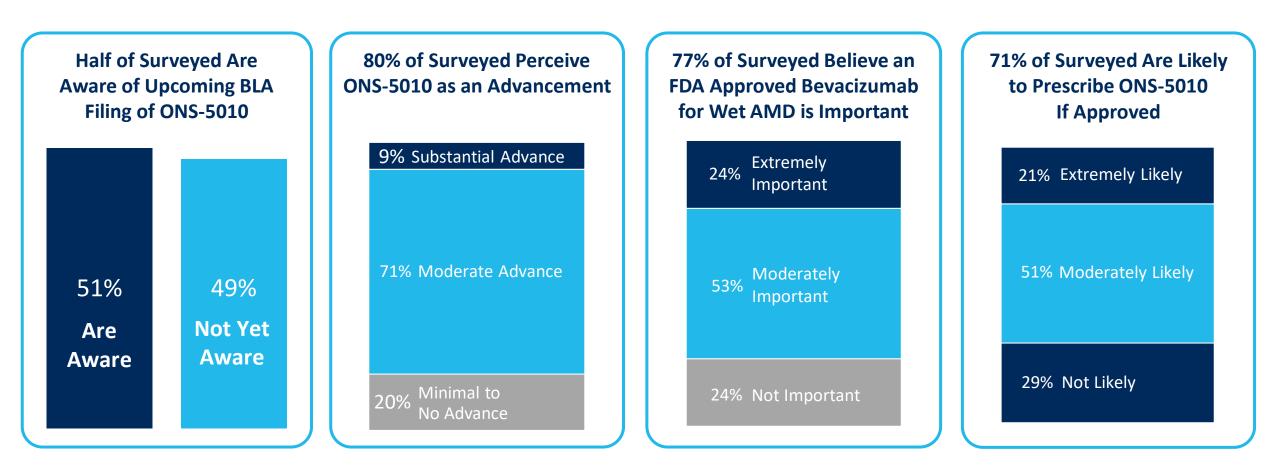
>80% of Retinal Specialists Express Interest/High Interest In an FDA-Approved Ophthalmic Bevacizumab to Treat Wet AMD, DME and BRVO





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"

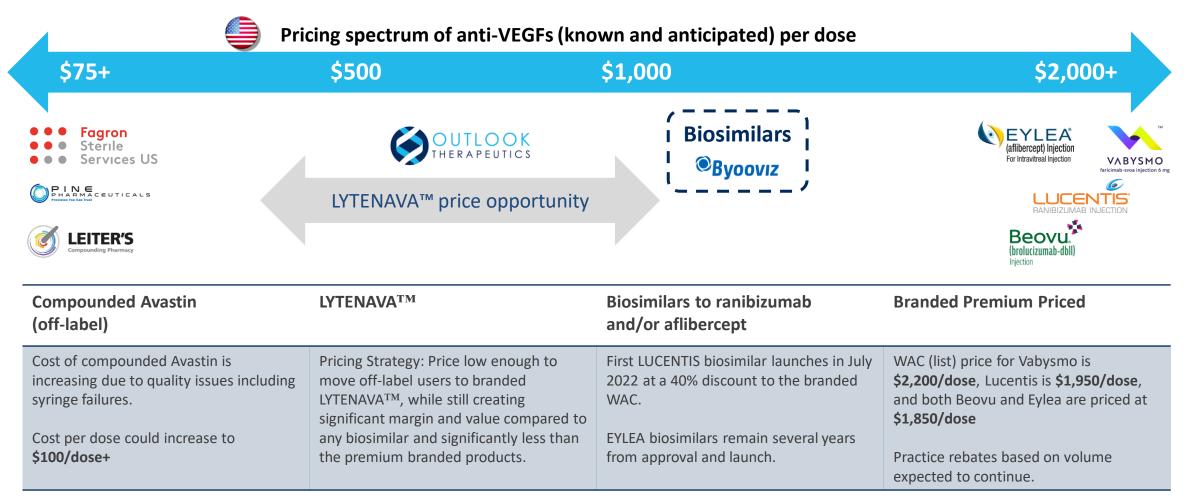
Investigational Therapy ONS-5010 Ophthalmologists Survey





LYTENAVA™ Pricing Opportunity

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





Charting a Path To a Successful Launch

Focus on Shaping the Market by Creating Awareness and Educating Physicians

Stakeholder Engagement

Engage physicians, payers, and patients and support society & payer groups to enable Tx choice

Patient Focus

Enable patient access to therapy via a safe, FDA approved, cost-effective treatment option for wet AMD Commercial Launch

Enhance the Standard of Care

Expand physician choice for the treatment of wet AMD, including a pre-filled syringe offering and smart adjacencies which leverage commercial capabilities

Enable Access

Craft a payer value story, ensure new J-code development & pathway and develop value dossier

Commercial Expansion

Establish commercial team & finalize distribution partners/network



Pathway Towards Potential FDA Approval in Wet AMD

✓ Positive Signals

NORSE

ONE



✓ Positive Top-Line Data



Pivotal Trial

2nd Registration Trial

✓ Completed



Open-Label Safety Study Supports BLA Requirements



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:

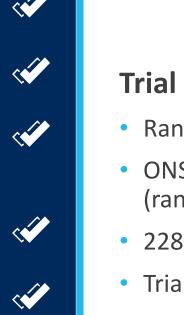
- Provided adequate number of patient exposure required for BLA submission
- No unexpected safety trends
- Zero cases of ocular inflammation





Pivotal Trial

2nd Registration Trial



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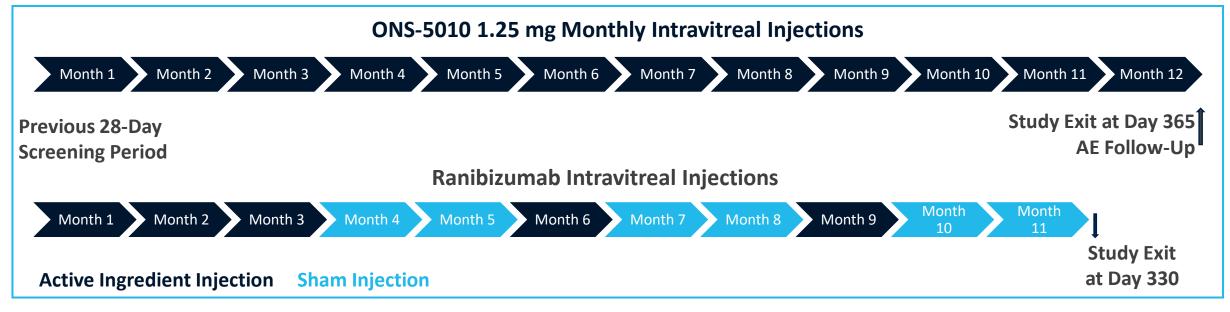
Trial Highlights:

- 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



NORSE Phase 3 Pivotal Study Design – Registration Strategy

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

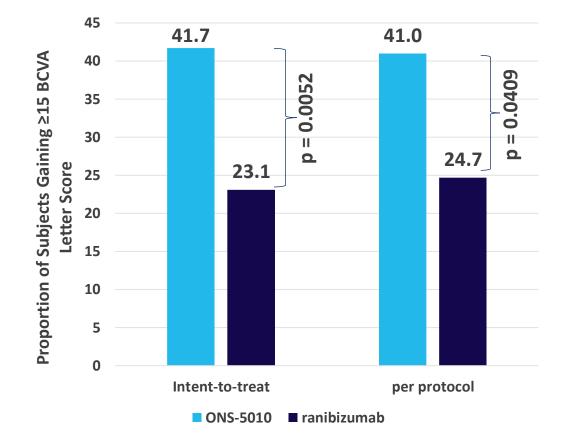
- Proportion of subjects who gain ≥15 letters in BCVA
- Mean change in BCVA from baseline to Month 11
- Frequency and incidence of AEs



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)	24/1	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)	18/7	73 (24.7)	
Risk Difference		0.1631			
95% CI	(0.0120, 0.3083)				
p-value	-value 0.0409				



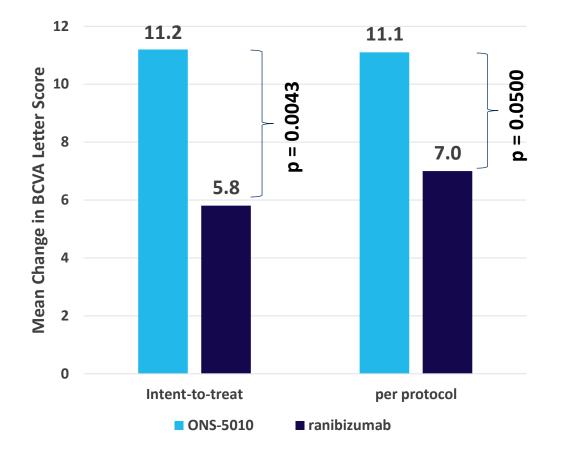




Key Secondary Endpoints Met with Highly Statistically Significant, Clinically Relevant Results

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		0.0	043	
p-value BCVA Score Change from Baseline to Month 11 (PP)	n	0.0	0 43 68	
BCVA Score Change from	n Mean (SD)			

Mean Change in BCVA

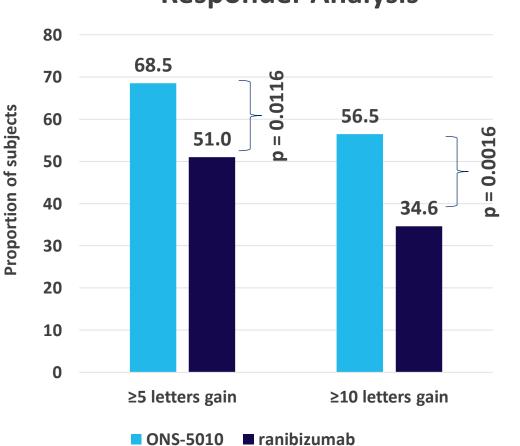




NORSE Statistically Significant, Clinically Relevant Secondary Endpoints

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			1756	
95% CI (0.0315,0.3052)				
p-value		0.0)116	
Subjects Gaining ≥10 letters				
Number of Subjects	n/N (%)	61/108 (56.5)	36/104 (34.6)	
Risk Difference 0.2187			2187	
95% CI	% CI (0.0726,0.3487)			
p-value		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)



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 Outlook Therapeutics investigational pre-filled syringe
 - Vial arm (n= has been fully enrolled and is now complete)
- Enrolling ~120 subjects with visual impairment due to retinal disorders
 - Wet AMD
 - BRVO
 - DME
- Data expected to support sBLA submission in 2023



Financial Highlights NASDAQ: OTLK

Sufficient capital to support pre-launch activities for ONS-5010 and a pathway to potentially support launch if approved¹



Cash Balance²

~\$362M

Market Cap⁴

~226M

Shares Outstanding³

~1.3M

Average Volume⁴



1: Based off management's current expectations; 2: As of March 31, 2022; 3: As of May 11, 2022; 4: As of May 13, 2022

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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 be converted to Outlook Therapeutics' LYTENAVA, if FDA approved
 - Potential for first FDA approved ophthalmic formulation of bevacizumab
 - U.S. FDA BLA submission targeted September 2022 with anticipated approval to follow 8-12 months later

Sufficient capital for pre-launch activities and potentially through launch

Management team with proven ophthalmic commercial launch expertise

