UNITED STATES
SECURITIES AND EXCHANGE COMMISSION

Washington, DC 20549

FORM 8–K

CURRENT REPORT
Pursuant to Section 13 OR 15 (d)
of the Securities Exchange Act of 1934

Date of Report (Date of Earliest Event Reported): **August 17, 2020**

OCUGEN, INC.

(Exact Name of Registrant as Specified in its Charter)

Delaware	**001-36751**	**04-3522315**
(State or Other Jurisdiction of Incorporation)	(Commission File Number)	(I.R.S. Employer Identification Number)

5 Great Valley Parkway, Suite 160
Malvern, Pennsylvania 19355
(484) 328-4701
(Addresses, including zip code, and telephone numbers, including area code, of principal executive offices)

N/A
(Former Name or Former Address, if Changed Since Last Report)

Check the appropriate box below if the Form 8–K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions:

- o Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)
- o Soliciting material pursuant to Rule 14a–12 under the Exchange Act (17 CFR 240.14a–12)
- o Pre–commencement communications pursuant to Rule 14d–2(b) under the Exchange Act (17 CFR 240.14d–2(b))
- o Pre–commencement communications pursuant to Rule 13e–4(c) under the Exchange Act (17 CFR 240.13e–4(c))

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common Stock, $0.01 par value per share	OCGN	The Nasdaq Stock Market

Indicate by check mark whether the registrant is an emerging growth company as defined in Rule 405 of the Securities Act of 1933 (§230.405 of this chapter) or Rule 12b-2 of the Securities Exchange Act of 1934 (§240.12b-2 of this chapter).

Emerging growth company o

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. o

Item 7.01 Regulation FD Disclosure

Attached as Exhibit 99.1 and furnished for purposes of Regulation FD is a presentation that Ocugen, Inc. ("Ocugen") will post on its website on August 17, 2020 and may use from time to time in presentations or discussions with investors, analysts and other parties.

The information in this Item 7.01 (including Exhibit 99.1) is being furnished solely to satisfy the requirements of Regulation FD and shall not be deemed to be "filed" for the purposes of Section 18 of the Securities Exchange Act of 1934 (the "Exchange Act") or otherwise subject to the liabilities of that Section, nor shall it be deemed to be incorporated by reference in any filing under the Securities Act of 1933 or the Exchange Act.

Item 9.01 Financial Statements and Exhibits

The following exhibit is being filed herewith:

(d) Exhibits

Exhibit No.	Document
99.1	Ocugen, Inc. Presentation

SIGNATURE

Pursuant to the requirements of the Securities Exchange Act of 1934, as amended, the registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

Date: August 17, 2020

OCUGEN, INC.

By: /s/ Shankar Musunuri

Name: Shankar Musunuri

Title: Chief Executive Officer and Chairman

ocugen

Our Mission is to Develop **Gene Therapies** to Cure Blindness Diseases

NASDAQ: OCGN

Corporate Deck: Aug 2020

Forward Looking Statement

This presentation contains forward-looking statements that involve substantial risks and uncertainties. All statements, other than statements of historical facts, contained in this presentation, including statements regarding our business strategy, future results of operations and financial position, prospective products, product approvals, research and development costs, timing and likelihood of success, estimated market size or growth, and plans and objectives of management for future operations, are forward-looking statem When used in this presentation, the words "anticipate," "believe," "contemplate," "continue," "could," "estimate," "expect," "intend," "may," "plan," "potential," "predict," "projec "should," "target," "would," and similar expressions are intended to identify forward-looking statements, although not all forward-looking statements contain these identifying wo

Forward-looking statements involve known and unknown risks, uncertainties and other factors, including those risks set forth in the Company's filings with the Securities and Excl Commission, which are available at www.sec.gov, that may cause our actual results, performance or achievements to be materially different from any future results, performance achievements expressed or implied by the forward-looking statements. Forward-looking statements are based on our management's beliefs and assumptions and on information available to management as of the date of this presentation. Our actual future results may be materially different from what we expect. Except as required by law, we assume no obligation to update these forward-looking statements publicly, or to update the reasons actual results could differ materially from those anticipated in the forward-looking state even if new information becomes available in the future.

This presentation includes estimates by us of statistical data relating to market size and growth and other estimated data about our industry. This data involves a number of assumptions and limitations, and you are cautioned not to give undue weight to such estimates. This presentation also includes statistical and other industry and market data tha obtained from industry publications and research, surveys and studies conducted by third parties. Industry publications and third-party research, surveys and studies generally in that their information has been obtained from sources believed to be reliable, although they do not guarantee the accuracy or completeness of such information. While we belie these industry publications and third-party research, surveys and studies are reliable, we have not independently verified such data.

This communication shall not constitute an offer to sell or the solicitation of an offer to sell or the solicitation of an offer to buy any securities, nor shall there be any sale of secur any jurisdiction in which such offer, solicitation or sale would be unlawful prior to registration or qualification under the securities laws of any such jurisdiction. No offering of sec shall be made except by means of a prospectus meeting the requirements of Section 10 of the Securities Act of 1933, as amended.

Ocugen Overview

Developing transformative therapies with the potential to cure blindness diseases

OCUGEN'S BREAKTHROUGH MODIFIER GENE THERAPY PLATFORM

- Modifier Gene Therapy Platform – potential for one product to treat many diseases & multi-factor approach
- Technology developed at Dr. Neena Haider's Lab, Harvard Medical School (POC study results published in Nature
- **OCU400 (AAV-*NR2E3*):** Potential to treat broad Retinitis Pigmentosa (RP), which has over 150 gene mutations, ir developing separate therapies for each mutation under traditional gene therapy – initiation of Phase 1/2a within
- **OCU410 (AAV-*RORA*):** Potential to treat dry age-related macular degeneration (Dry AMD) through multi-factor treatment approach – initiation of Phase 1/2 in 2022
- Strategic manufacturing partnership with CanSinoBio (~$7B market cap) – sets clear path for critical manufactur

NOVEL BIOLOGIC

- **OCU200:** Targeting major retinal diseases: Diabetic Macular Edema (DME), Diabetic Retinopathy (DR), and Wet A Related Macular Degeneration (Wet AMD) – initiation of Phase 1/2 in 2022
- Novel mechanism of action (MOA) – integrin targeting
- Potential opportunity to initially treat non-responders to anti-VEGF/corticosteroids therapies, 50% of the total p population of DME, DR and Wet AMD (estimated total current global market size over $10B)

Multiple near and mid-term milestones

- Plan to initiate four Phase 1/2 trials within 1-2 years, with data readouts beginning in 2022

Experienced Leadership Team

Leadership Team

Shankar Musunuri, PhD, MBA
Chairman, CEO and Co-Founder

Rasappa Arumugham, PhD
Chief Scientific Officer

Vijay Tammara, PhD
SVP, Regulatory & Quality

Sanjay Subramanian, MBA
Chief Financial Officer

Jessica Crespo, CPA
Corporate Controller

Arun Upadhyay, PhD
Head of Discovery

Retina Scientific Advisory Board

Mohamed Genead, MD
Acting CMO and Chair of SAB

David Boyer, MD

Carl D. Regillo, MD, FACS

Mark Pennesi, MD, PhD

Geeta Lalwani, MD

Pipeline Overview

	Program	Indication		Prevalence (US)	Discovery	Preclinical	IND-Enabling	Phase
Modifier Gene Therapy Platform	OCU400 AAV-hNR2E3	*NR2E3* Mutation - Associated Retinal Degeneration *	Orphan US	500 - 600				
		RHO Mutation - Associated Retinal Degeneration *	Orphan US	10,400 - 12,700				
		CEP290 Mutation - Associated Retinal Degeneration *	Orphan US	2,500 - 3,000				
		PDE6B Mutation - Associated Retinal Degeneration *	Orphan US	1800 - 2800				
	OCU410 AAV-hRORA	Dry Age Related Macular Degeneration (Dry AMD) *		9M - 10M				
Novel Biologic	OCU200 Transferrin-Tumstatin	Diabetic Macular Edema		0.75M				
		Diabetic Retinopathy		7.7M				
		Wet Age Related Macular Degeneration (Wet AMD)		1.1M				

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* No approved therapies exist

https://www.aao.org/eye-health/diseases/retinitis-pigmentosa-treatment

https://www.aao.org/eye-health/diseases/amd-treatment

Ocugen's Modifier Gene Therapy Platform

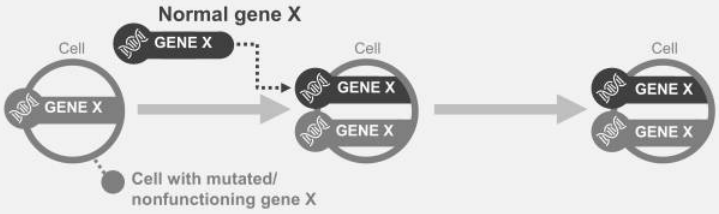
Breakthrough Technology designed to

Address Multiple Diseases with One Product

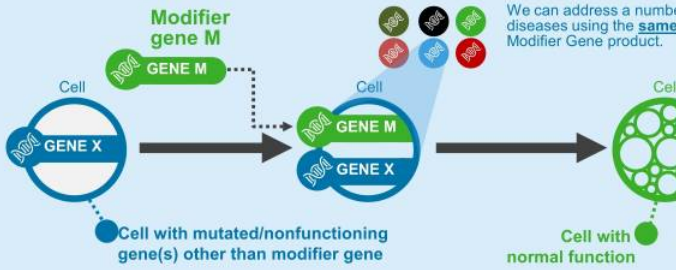
Approach Complex Diseases Through Multiple Factors

Ocugen's Modifier Gene Therapy Platform

Gene Augmentation: Transfer functional version of a non-functional gene into the target cells.



Modifier Gene Therapy: Introduce a functional gene to modify expression of many genes, gene-networks and regulate basic biological processes in retina



Traditional Gene Therapy — ONE Disease

- ✓ Traditional approach that targets one individual gene mutation at a time
- ✓ Regulatory pathway focused on specific product for one disease
- ✓ Longer time to recoup development costs

OCU400 — *NR2E3* Mutation-Associated Retinal Disease; Rhodopsin Mutation-Associated Retinal Disease; *CEP290* Mutation-Associated Retinal Disease

- ✓ Novel approach that targets nuclear hormone genes (NHRs), which regulate multiple functions within the retina
- ✓ Smoother regulatory pathway due to ability to target multiple diseases with product
- ✓ Ability to recoup development costs over multiple therapeutic indications

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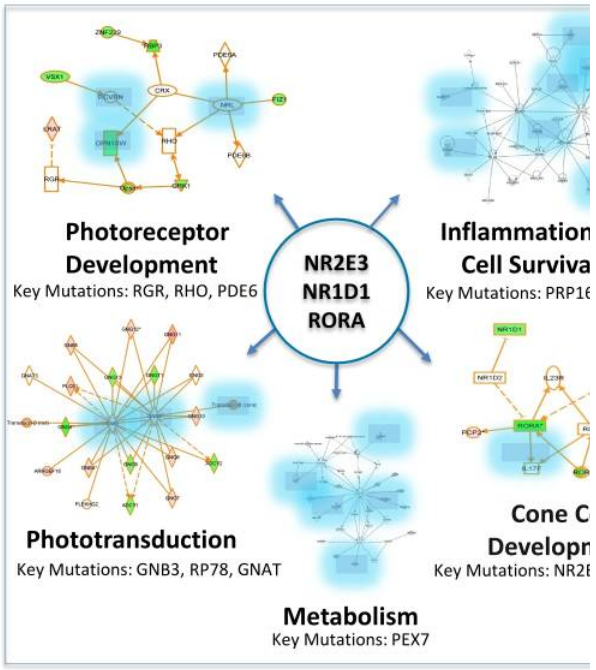
Nuclear Hormone Receptor Genes (NHRs)

- Modulators of retinal development & function
- Act as “master genes” in the retina
- Molecular reset of key transcription factors and associated gene networks – retinal homeostasis
- Gene modifier concept including impact on clinical phenotypes is well known in other disease areas, CF and SMA *

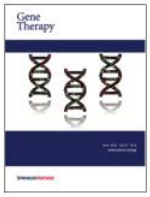


* References: https://pubmed.ncbi.nlm.nih.gov/28556246/
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5409218/
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4339951/
https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0183526

Nature Gene Therapy Publication

Preclinical POC Data for Nr2e3 Published in Nature Gene Therapy

- Efficacy results shown in 5 unique mouse models of RP
- Technology developed at Harvard Medical School, Dr. Neena Haider's Lab
- Study demonstrates potency of modifier gene therapy to elicit broad-spectrum therapeutic benef early and advanced stages of RP
- Results show evidence of vision rescue in Early Stage & Advanced Stage of disease

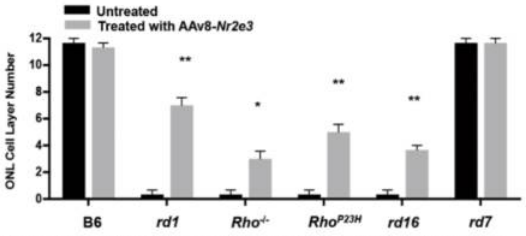


- Important milestone for development of therapy; demonstrated proof of principle
- Protection elicited in multiple animal models of degeneration caused by different mutations
- Potential to represent first broad-spectrum therapy and to provide rescue even after disease ons

nature research https://www.nature.com/articles/s41434-020-0134-z

OCU400 – Rescue in Early & Advanced Stage of Disease

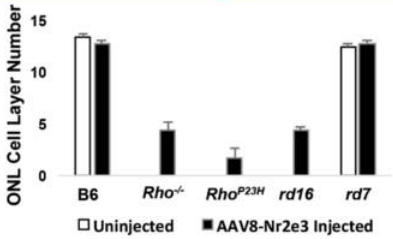
Early Stage Rescue



- P0 single subretinal injection, evaluation 3-4 months post injection
- *rd1* evaluated one-month post injection

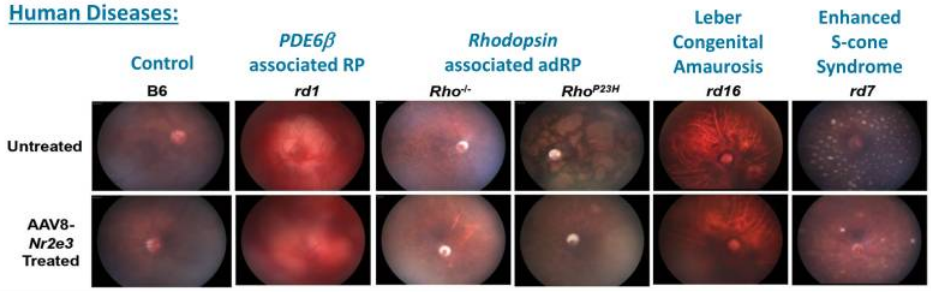
ONL: Outer Nuclear Layer

Advanced Stage Rescue



- P21 subretinal injection, evaluation 2–3 months post injection
- Restored ONL photoreceptors morphology in rd7
- ONL cell layer change in *rd7* model doesn't progress until 4-5 mos. of ag

Human Diseases:

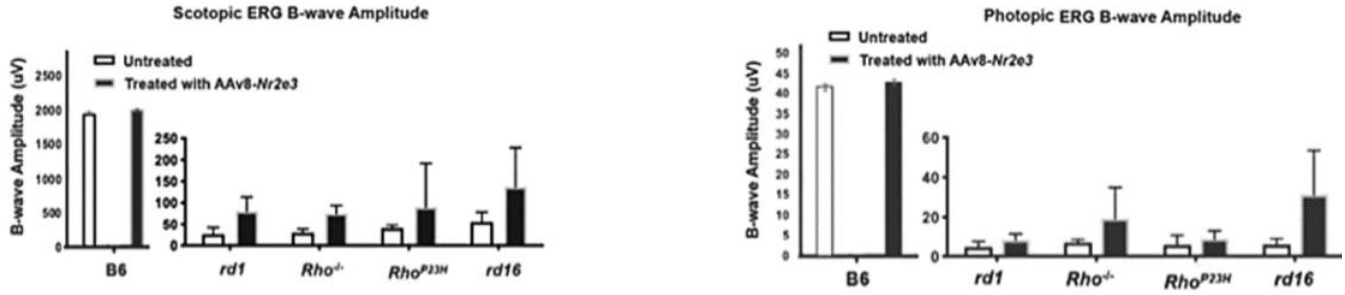


➢ **Fundus images and ONL count show how single product recuses vision in multiple mutations**

nature research https://www.nature.com/articles/s41434-020-0134-z

OCU400 – Demonstrates Improved Vision Signals in Retina

Electroretinogram (ERG) response reveals rescue under both Scotopic (dim-lit) as well as Photopic (well-lit) conditions



ERG response: P0 single subretinal injection, evaluation 3-4 months post injection

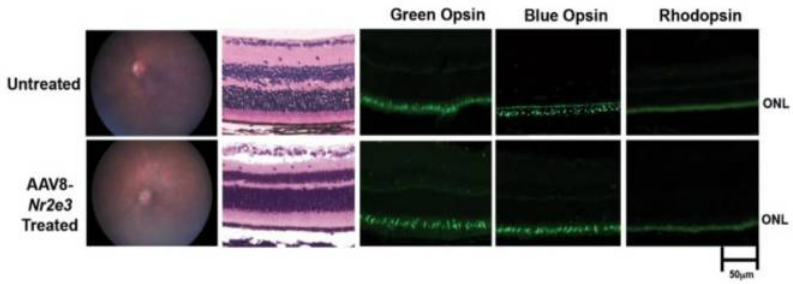
Human vision is enabled by three primary modes:

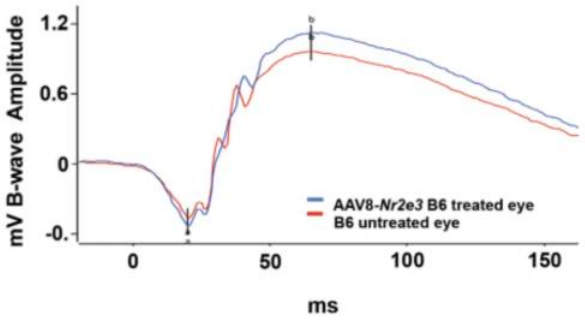
- **Photopic vision:** Vision under well-lit conditions, which provides for color perception, and which functions primarily due to cc cells in the eye
- **Mesopic vision:** A combination of photopic vision and scotopic vision in low lighting, which functions due to a combination of and cone cells in the eye
- **Scotopic vision:** Monochromatic vision in very low light, which functions primarily due to rod cells in the eye

nature research https://www.nature.com/articles/s41434-020-0134-z

OCU400 – Demonstrated Safety in Mouse Model

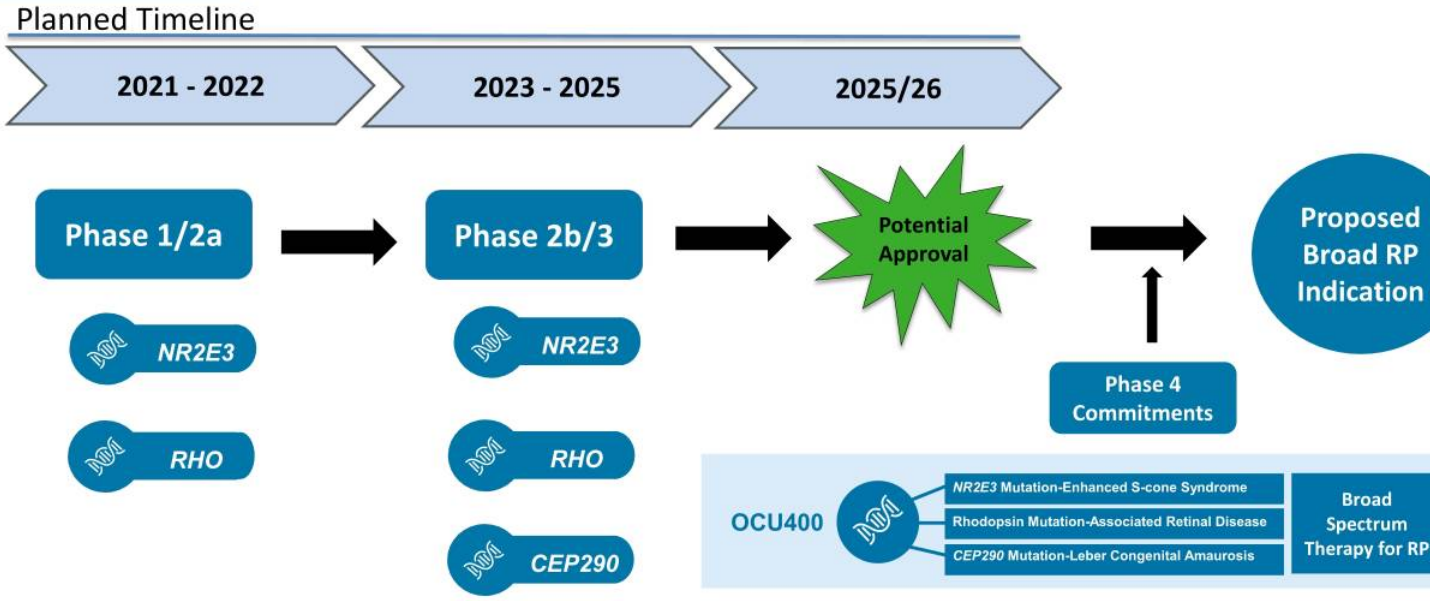
Study results confirm overexpression of Nr2e3 by subretinal AAV8-*Nr2e3* injection is not detrimental to retina – no off-target effects





nature research https://www.nature.com/articles/s41434-020-0134-z

OCU400 – Clinical and Regulatory Strategy



OCU400 – Competitive Overview

Features	OCU400	Traditional Gene Therapy	Cell Therapy
	ocugen	Roche, HORAMA, Biogen, MEIRAGTx, agtc, NOVARTIS, Allergan, SANOFI	astellas, jCyte, ReNeuron
One product for many IRDs (including broad RP indication)	✓	✗	Limited ✓
Technology established in the ocular disease space	✓	✓	✗
POC data in RP models with different genetic mutations	✓	✗	✗
Expected long-term outcome	Potentially longer benefit due to promotion of homeostasis	Potentially limited due to loss of retinal cells over time	Not established
Target Patient Population	Large	Small (specific to mutation)	Variable
Developmental cost	Low (economies of scale)	High (No economies of scale)	High

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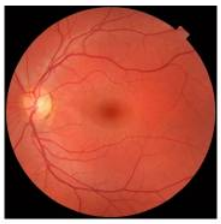
Potential Competitors pursuing treatment of RP with Traditional Gene Therapy

Potential Competitors pursuing treatment of RP with Cell Therapy

OCU410 (AAV-*RORA*) – Dry AMD

We believe OCU410 has the potential to address this disease through its multi-factor approach



Normal Retina

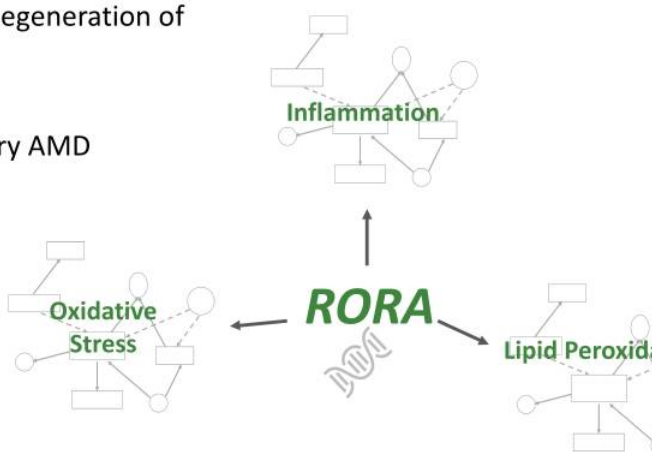
Dry AMD

- Leads to irreversible blindness due to degeneration of the retina
- ~9-10M patients in the U.S.
- Currently no approved treatment for Dry AMD

Dry AMD

Contributing Factors

- Aging
- Genetics
- Environmental Factors



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References: https://www.brightfocus.org/macular/article/age-related-macular-facts-figures
https://www.uniprot.org/uniprot/P35398#function
https://pubmed.ncbi.nlm.nih.gov/21998696/
https://pubmed.ncbi.nlm.nih.gov/19786043/

Gene Therapy Manufacturing

Partnership helps advance OCU400 into the clinic with significantly reduced capital and resources

ocugen ⟷ CanSinoBIO

Ocugen Partnership with CanSino Biologics Inc. (CanSinoBIO)

CanSinoBIO to perform CMC development & manufacturing of clinical supplies for OCU400

- Publicly-listed (6185.HK) with market cap of ~$7B
- State-of-the-art facilities with world class team
- Provides scalable GMP cell lines (such as HEK293 suspension culture adopted) for commercial manufacturing
- Responsible for all associated costs (typical costs until BLA filing ~$25M-$35M)
- Manufacturing at commercial scale (200L) for Phase 1/2 for product consistency

CanSinoBIO has rights to develop, manufacture and commercialize OCU400 for Greater China Market

- Ocugen to receive mid to high single-digit royalties on Greater China sales
- CanSinoBio to receive low to mid single-digit royalties on all other Global sales

Source: Manufacturing Cures: Infrastructure Challenges Facing Cell And Gene Therapy Developers In Vivo June 2019 invivo.pharmaintelligence.informa.com
Bloomberg: How a Chinese Firm Jumped to the Front of the Virus Vaccine Race

OCU200:

Diabetic Macular Edema (DME)
Diabetic Retinopathy (DR)
Wet Age-Related Macular Degeneration (Wet AM

Novel Biologic Offering Benefits Beyond Anti-VEGF

OCU200 – Potential to Treat DME, DR & Wet AMD

OCU200 Provides Hope to All patients with DME, DR or Wet AMD

DME → **~0.7M patients in the US***
DR → **~7.7M patients in the US***
Wet AMD → **~1.1M patients in the US***

~50% patients do not respon Anti-VEGF/corticosteroids Therapies

- **OCU200 is a Transferrin-Tumstatin Fusion Protein**
  - Tumstatin: Multiple MOAs for treatment and prevention of macular degeneration and neovasculariza
  - Transferrin: Targets the site of action and improves uptake (better target engagement)
- Integrin Targeting provides hope to these patients who are non-responders to current therapies
- Distinct MOA through targeting Integrin pathways can potentially also help reduce number of injections for patients who do respond to Anti-VEGF & corticosteroids therapies
- Significant global market potential

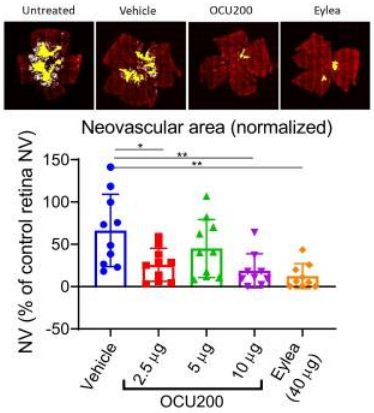
(*) https://www.gene.com/stories/retinal-diseases-fact-sheet
https://www.brightfocus.org/macular/article/age-related-macular-facts-figures

OCU200 –Transferrin-Tumstatin Fusion Protein

OCU200 Demonstrated Superior Efficacy Compared to Existing Anti-VEGF Therapies

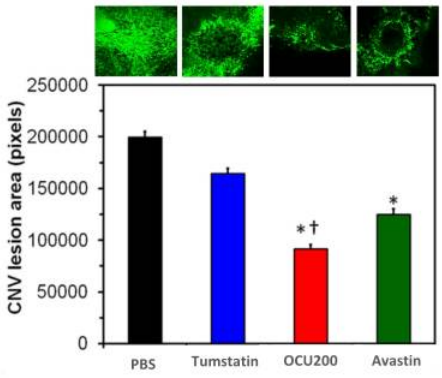
- Inhibits new blood vessel formation
- Anti-inflammatory
- Anti-oxidative

DME/DR
Oxygen-Induced Retinopathy (OIR) Mouse Model



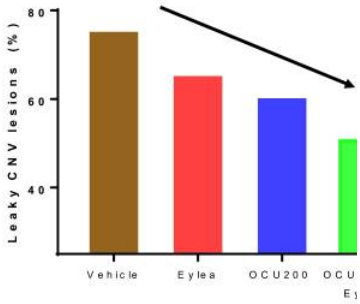
Effect of OCU200 intravitreal treatments on Neovascularization (NV). Data are presented as mean± SD. Filled circles represent data points from individual eyes
* P < 0.05, ** P < 0.01 (n = 9-10 eyes per group)

Wet AMD
In-Vivo Laser-Induced Rat CNV Model



* indicates p<0.05 when compared to PBS and/or tumstatin treatment
† indicates p<0.05 when compared to Avastin; CNV lesions measured on day 14 after treatment

Wet AMD
In-Vivo Laser-Induced Mouse CNV



Data expressed as percentage of CNV lesions
10 after treatment. Laser induction & treatme
on Day 0

OCU200 – Distinct Mechanism of Action

We believe OCU200 has the potential to become a disease modifying therapeutic for broader patient population

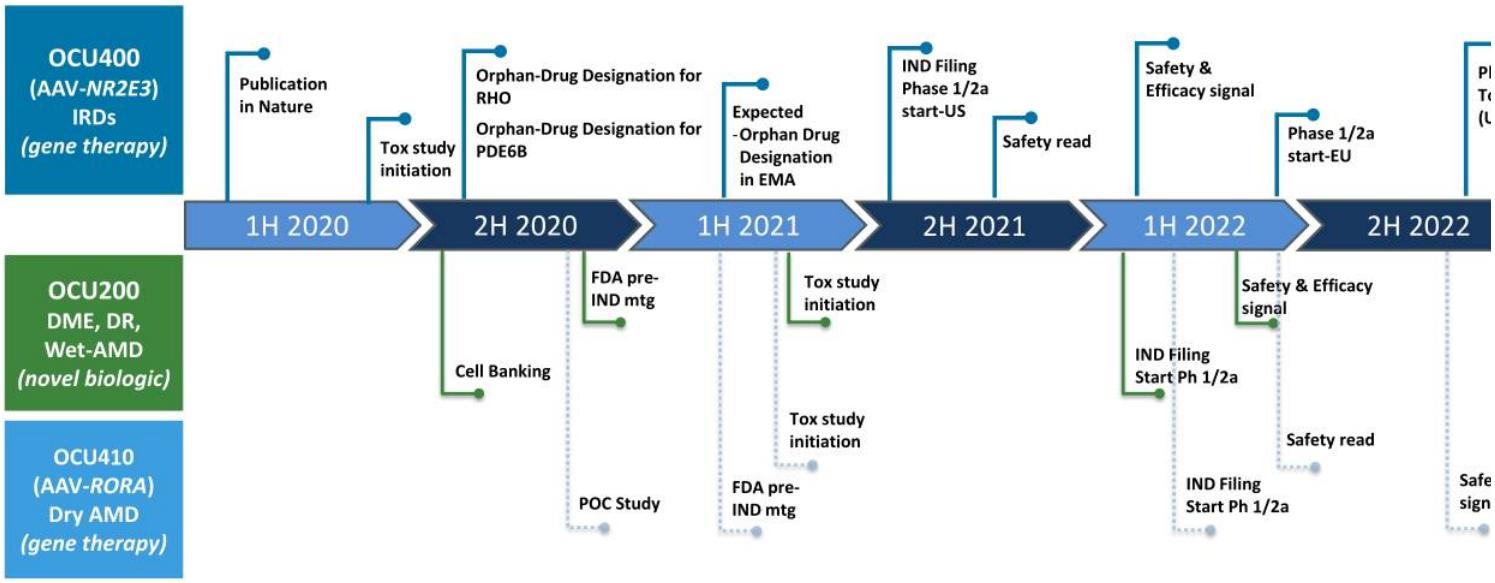
Features	OCU200	Anti-VEGF	Anti-Integrin
	ocugen	Genentech[1] NOVARTIS[1] REGENERON[1] KODIAK	ASCLEPIX Allegro
Reduces VEGF level/Fluid	✓	✓	✓
Selectively works on active endothelial cells (Neovascular)	✓	✗	✓
Activates native anti-angiogenic response	✓	✗	✓
Enhanced effective delivery through Transferrin	✓	✗	✗
Pro-apoptotic and anti-oxidative	✓	✗	✓
Dosing Frequency	Expected once in 3 months	1-3 months	1-3 months

Potential Competitors pursuing treatment using Anti-VEGF approach

Potential Competitors pursuing treatment using Anti-Integrin approach

(1) Approved

Near & Mid-Term Milestones: Planned Timeline



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Capital Structure Summary

Capital Structure Summary	
Cash & Cash Equivalents (6/30/20)	$15.0M
Debt Principal O/S (6/30/20) • EB5 Loan : 1.5M • PPP Loan : 0.4M • Apr '20 Notes: 4.5M	$6.4M
Common Stock O/S (7/31/20)	135.0M
Warrants O/S (6/30/20)	0.9M
Options O/S (6/30/20)	4.5M

A Bold Vision to Cure Blindness Diseases with Gene Therapies

For more information, contact:
IR@ocugen.com