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): June 3, 2020

OCUGEN, INC.

(Exact Name of Registrant as Specified in its Charter)

Delaware (State or Other Jurisdiction of Incorporation)

001-36751 (Commission File Number)

04-3522315 (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:

0 Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)

0 Soliciting material pursuant to Rule 14a–12 under the Exchange Act (17 CFR 240.14a–12)

0 Pre-commencement communications pursuant to Rule 14d–2(b) under the Exchange Act (17 CFR 240.14d–2(b))

0 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 0

_

=

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. 0

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 June 3, 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.

1

Item 9.01 Financial Statements and Exhibits

The following exhibit is being filed herewith:

(d) Exhibits

Exhibit No. 99.1

Ocugen, Inc. Presentation

Document

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: June 3, 2020

OCUGEN, INC.

By: /s/ Shankar Musunuri

Name: Shankar Musunuri Title: Chief Executive Officer and Chairman

2



Our Mission is to develop Gene Therapies to Cure Blindness Diseases

NASDAQ: OCGN



Corporate Deck

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 statements. When used in this presentation, the words "anticipate," "believe," "contemplate," "continue," "could," "estimate," "expect," "intend," "may," "plan," "potential," "predict," "project," "should," "target," "would," and similar expressions are intended to identify forward-looking statements, although not all forward-looking statements contain these identifying words.

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 Exchange 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 or achievements expressed or implied by the forward-looking statements. Forward-looking statements are based on our management's beliefs and assumptions and 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 statements, 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 that obtained from industry publications and research, surveys and studies conducted by third parties. Industry publications and third-party research, surveys and studies generally indicate 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 believe 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 securit in 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 securities shall be made except by means of a prospectus meeting the requirements of Section 10 of the Securities Act of 1933, as amended.







Experienced Leadership Team

- Diverse experience in large pharma, signature biotech, and small companies
- Development, Manufacturing and Commercialization expertise provides know-how to take pipeline from preclinical to market

Shankar Musunuri, PhD, MBA Chairman, CEO and Co-Founder		Pfizer	AMYLIN .
Sanjay Subramanian, MBA Chief Financial Officer	Pharmaceuticals	BAUSCH He	alth <u>GM</u>
Daniel Jorgensen, MD, MPH, MBA Chief Medical Officer	CDC	Pfizer	Aventis
Rasappa Arumugham, PhD Chief Scientific Officer		Pfizer	
Vijay Tammara, PhD Senior Vice President, Regulatory & Quality	FDA		
Kelly Beck, MBA Vice President, Investor Relations & Administration	tengion Bully a strandskie Bully to the	DrugDev	Prahealthsciences
© 2020 Ocugen. All Rights Reserved.			

Pipeline Overview

9	Indication	Prevalence (US)	Preclinical	Phase 1	Phase 2	Р
MODIFIER G	ENE THERAPY PLATFORM					
OCU400 AAV-NR2E3	NR2E3 Mutation-Associated Orphan Retinal Degeneration US	500-600				
	CEP290 Mutation-Associated Orphan Retinal Degeneration US	2,500-3,000				
	<i>RHO</i> Mutation-Associated Re tinal Degeneration	10,400-12,700				
OCU410 AAV-RORA	Dry AMD	9-10M				
RETINAL DISEASES (novel biologic)						
	Diabetic Macular Edema	745,000				
OCU200 Tumstatin Transferrin	Diabetic Retinopathy	7.7M				
	Wet AMD	1.1M				



©2020 Ocugen. All Rights Reserved.



Breakthrough Modifier Gene Therapy Platform Addressing Multiple Diseases with One Product

Nuclear Hormone Receptor Genes (NHRs) are Important Modulators of Retinal Development & Function



Potential to Treat Many Diseases with One Product

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



Preclinical Data Published in Nature Gene Therapy

Efficacy results in 5 unique mouse models of retinitis pigmentosa (RP)

Underwent administration of AAV-NR2E3 by subretinal injection

Study demonstrates potency of novel modifier gene therapy to elicit broad-spectrum therapeutic benefits in early and intermediate stages of RP

- 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 on



OCU400 Preserves Photoreceptors in Early Stage of Disease



Retina histology

- P0 single subretinal inje evaluation 3-4 months injection
- rd1 evaluated 1-month injection
- Restored Outer Nuclea (ONL) photoreceptors morphology in rd7

OCU400 Preserves Photoreceptors in Advanced Stage of Disease



OCU400 Demonstrates Improved Vision Signals in Retina



Scotopic ERG B-wave Percentage Increase

Photopic ERG B-wave Percentage Increase

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

rd1 evaluated 1- month post injection

Socugen ©2020 Ocugen. All Rights Reserved.	search https://www.nature.com/articles/s41434-020-0134-z
--	--

OCU400 Demonstrated Safety in Mouse Model



Study results confi overexpression o Nr2e3 by subretin AAV8-Nr2e3 injecti is not detrimental retina

natureresearch https://www.nature.com/articles/s41434-020-0134-©2020 Ocugen. All Rights Reserved.

OCU400 Regulatory Strategy



Gene Therapy Manufacturing: Plagued by Backlog and Timing Delays

Cell & gene therapy manufacturing demand continues to increase

- 1,060 clinical trials globally; 80 cell and gene therapy trials in Phase 3
- Large pharma acquiring companies to support internal programs
 - eg: Roche acquired Spark; Pfizer acquired Bamboo; Celgene acquired Juno
- Others being acquired by major CMOs to establish their presence in the gene therapy
 - eg: Thermo Fisher acquired Brammer Bio; Catalent acquired Paragon

Gene therapy companies facing manufacturing bottleneck & costs

- Long wait in the queue for CMO while large pharma can bypass (due to scope and financial power)
- Traditional CMO model not appropriate for implementing specialized process optimization steps
- High cost for the CMC development and clinical supplies; approximately:
 - \$7M \$10M for Phase 1
 - \$8M \$10M for late stage
 - \$10M \$15M for scale-up development for commercialization/BLA filing

Critical to find a Strategic and Reliable Partner that also shares costs



Source: Manufacturing Cures: Infrastructure Challenges Facing Cell And Gene Therapy Developers In Vivo June 2019 invivo.pharmaintelligence.informa.com



OCU400 Gene Therapy Manufacturing: Strategic Partnership with CanSinoBIO

CanSinoBIO

- Biotech company publicly-listed on Hong Kong exchange (6185.HK) with market cap of ~\$7 Billion USD
- State-of-the-art facilities with world class team
- Provides scalable GMP cell lines (such as HEK293 suspension culture adopted) for commercial manufacturing

CanSinoBIO to perform CMC development & manufacturing of clinical supplies

- CanSinoBIO responsible for all associated costs
- Option for commercial manufacturing agreement

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

💿 OCUgen ⇔ 🏷 CanSinoBIO

Partnership paves a path for Ocugen to advance OCU400 into the clinic with significantly reduced capital and resources



OCU410 (AAV-RORA): Dry AMD

Dry Age-Related Macular Degeneration (AMD)

· Leads to irreversible blindness due to degeneration of the retina

~9-10M patients in the US



Normal Retina



Dry AMD

Ocugen

Contributing Factors

- Aging
- Genetics
- Environmental Factors



Currently no approved treatment for Dry AMD

©2020 Ocugen. All Rights Reserved.

Sources: https://www.brightfocus.org/macular/article/age-related-macular-facts-figures https://www.uniprot.org/uniprot/P35398#function OCU200: Diabetic Macular Edema (DME) Diabetic Retinopathy (DR) Wet AMD

Novel Biologic Offering Benefits Beyond Anti-VEGF

DME, DR & Wet AMD are Leading Causes of Blindness

Diabetic Macular Edema (DME) Diabetic Retinopathy (DR) Wet AMD

- Most common causes of vision loss in patients with diabetes and aging population
- Anti-VEGF & corticosteroids therapies not effective in approximately 50% of patients
- Leakage and fluid accumulation continues in sub-retinal space even after many months of treatment





~7.7M DR patients in the US



~1.1M Wet AMD patients in the US



Targeting Integrin Pathways Offer New Opportunities





OCU200: Tumstatin-Transferrin Fusion Protein



Summary of Near-Term Milestones

OCU400 (AAV-NR2E3) Retinal Degenerative Diseases (gene therapy)	OCU410 (AAV- <i>RORA</i>) Dry AMD (gene therapy)	OCU200 DME, DR, Wet AMD (novel biologic)
✓ Mar 2020: Preclinical Data Published in Nature Gene Therapy	 2020-2021: Continue IND-Enabling Studies 	• 2020-2021: Continue IND-E Studies
 2020: Continue IND-Enabling Studies ✓ Initiated Tox Studies 	• 2022: Target Phase 1/2a Clinical Trial	2022: Target Phase 1/2a Cli
• 2021: Target Phase 1/2a Clinical Trial		

Note: Check mark (\checkmark) denotes completed milestone. All other milestones are anticipated future milestones.





A Bold Vision to Cure Blindness Diseases with Gene Therapies

For more information, contact: Kelly Beck

Vice President, Investor Relations & Administration kelly.beck@ocugen.com

