

UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 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): May 1, 2024

Chimerix, Inc.  
(Exact name of registrant as specified in its charter)

Delaware  
(State or other jurisdiction of  
incorporation)

001-35867  
(Commission File Number)

33-0903395  
(IRS Employer Identification No.)

2505 Meridian Parkway, Suite 100  
Durham, NC  
(Address of principal executive offices)

27713  
(Zip Code)

(919) 806-1074  
(Registrant's telephone number, including area code)

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:

- Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)
- Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)
- Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))
- 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, par value \$0.001 per share	CMRX	The Nasdaq Global 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

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.

**Item 2.02 Results of Operations and Financial Condition.**

On May 1, 2024, Chimerix, Inc. (the “Company”) announced our financial results for the three months ended March 31, 2024 in the press release attached hereto as Exhibit 99.1 and incorporated herein by reference.

**Item 7.01 Regulation FD Disclosure.**

On May 1, 2024, the Company also made available an updated corporate presentation (the “Presentation”) that the Company intends to use, in whole or in part, in meetings with investors, analysts and others. The Presentation can be accessed through the “Investors” section of the Company’s website. A copy of the Presentation is furnished as Exhibit 99.2 to this Current Report on Form 8-K and is incorporated by reference herein.

The information in Item 2.02, Item 7.01 and the attached Exhibits 99.1 and 99.2 is being furnished and shall not be deemed “filed” for the purposes of Section 18 of the Securities Exchange Act of 1934, as amended, or otherwise subject to the liabilities of that Section. The information in Item 2.02, Item 7.01 and the attached Exhibits 99.1 and 99.2 shall not be incorporated by reference into any registration statement or other document pursuant to the Securities Act of 1933, as amended.

**Item 9.01 Financial Statements and Exhibits.**

d) Exhibits

Exhibit No.	Description
99.1	<a href="#">Press Release of Chimerix, Inc. dated May 1, 2024.</a>
99.2	<a href="#">Chimerix, Inc. Corporate Presentation, dated May 1, 2024.</a>
104	Cover Page Interactive Data File (embedded within the Inline XBRL document).

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**SIGNATURES**

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

**Chimerix, Inc.**

Date: May 1, 2024

By: /s/ Michelle LaSpaluto  
Name: Michelle LaSpaluto  
Title: Chief Financial Officer



### **Chimerix Reports First Quarter 2024 Financial Results and Provides Operational Update**

- *Dordaviprone (ONC201) ACTION Study Progressing; Reiterates Expectations for Interim Overall Survival (OS) Data in 2025 and Final OS Data in 2026 –*
- *No Dose Limiting Toxicity in ONC206 Phase 1 Studies to Date, Preliminary Phase 1 Safety and Pharmacokinetic (PK) Data Expected This Summer –*
- *Company to Advance Dordaviprone in Provisional Registration Process Following Positive Interaction with Therapeutic Goods Administration (TGA) in Australia –*
- *Conference Call at 8:30 a.m. ET Today –*

DURHAM, N.C., May 1, 2024 (GLOBE NEWSWIRE) -- Chimerix (NASDAQ:CMRX), a biopharmaceutical company whose mission it is to develop medicines that meaningfully improve and extend the lives of patients facing deadly diseases, today reported financial results for the first quarter ended March 31, 2024 and provided an operational update.

"Patients, caregivers and physicians are in desperate need for novel therapies that offer clinical benefit in H3 K27M-mutant diffuse glioma, and we believe that dordaviprone (ONC201) has the potential to be a major therapeutic advance in the treatment of this disease," said Mike Andriole, Chief Executive Officer of Chimerix.

"We remain intensely focused on completion of the ACTION study and will continue to be active and collaborative with regulators to bring dordaviprone to patients in need as soon as possible. In parallel, we are continuously evaluating options to accelerate access to dordaviprone in select markets where accelerated regulatory pathways exist as there are few treatment options for this ultra-rare disease beyond radiation therapy. As an example, our recent interaction with the Therapeutic Goods Administration (TGA) in Australia is a positive initial step that is aligned to this overall strategy. Having a pivotal Phase 3 study well underway is an important consideration in global regulatory conversations that contemplate accelerated approval, and the ongoing maturation of the ACTION study enables these conversations," added Mr. Andriole.

"Furthermore, we continue to progress our second generation imipridone, ONC206, in Phase 1 dose escalation and are enthusiastic about the differentiated profile and activity seen with this molecule thus far. We expect to pursue novel development opportunities apart from dordaviprone and look forward to describing the future development path of ONC206 by the end of the year," concluded Mr. Andriole.

#### **Dordaviprone (ONC201)**

Dordaviprone is an oral, first-in-class small molecule imipridone that selectively binds to the G-protein coupled dopamine receptor D2 (DRD2) and the mitochondrial protease ClpP.

Dordaviprone is being evaluated in the Phase 3 ACTION trial that is currently enrolling H3 K27M-mutant glioma patients at over 135 sites in 13 countries. The trial enrolls patients shortly after completion of front-line radiation therapy, that is the standard of care. The study is designed to enroll 450 patients randomized 1:1:1 to receive dordaviprone at one of two dosing frequencies or placebo. Participants are

randomized to receive 625mg of dordaviprone once per week (the Phase 2 dosing regimen), 625mg on two consecutive days per week or placebo. The dose is scaled by body weight for patients <52.5kg.

Chimerix expects interim overall survival (OS) data in 2025 and final OS data in 2026. For more information, please visit [clinicaltrials.gov](https://clinicaltrials.gov)

Chimerix recently engaged in the process to evaluate eligibility for dordaviprone to be considered for Provisional Registration in Australia. The Provisional Registration process is a three-step process which begins with a Pre-Submission Meeting evaluating current data, as well as other program features, including the status of pivotal studies. Chimerix recently completed the Pre-Submission Meeting with the TGA and the TGA agreed that dordaviprone meets the criteria to advance to the second of three steps in the process, a Provisional Determination application. The meeting included an assessment that preliminary data is likely to provide a "major therapeutic advance" in H3 K27M-mutant glioma and that the ACTION study could provide pivotal confirmatory safety and efficacy data before the conclusion of the Provisional Registration period. Chimerix expects to work collaboratively with TGA as dordaviprone advances to the next step in the process over the coming months. Once submitted, the Provisional Determination review process is targeted for 20 working days. Should an application for Provisional Registration be submitted the review process is 255 working days. We expect a filing could occur around year end with possible commercial availability in 2026.

#### **ONC206**

ONC206 is a second generation ClpP agonist and DRD2 antagonist that has demonstrated monotherapy anti-cancer activity in pre-clinical models in primary CNS tumors and solid tumors outside of the CNS.

Phase I dose escalation trials continue at the National Institutes of Health (NIH) and the Pacific Pediatric Neuro-Oncology Consortium (PNOC) in adult and pediatric CNS tumor patients, respectively. The dose escalation trials are currently dosing at a twice per day, three days per week schedule, which are expected to increase the duration of therapeutic exposure. To date, ONC206 has been generally well tolerated with no dose limiting toxicities as is currently being dosed in the expected therapeutic range. Chimerix expects to report preliminary safety and pharmacokinetic (PK) data from these studies beginning in mid-2024.

#### **Corporate**

In March 2024, Chimerix announced the appointment of Marc D. Kozin as the newest member of the Company's Board of Directors. Mr. Kozin brings more than 35 years of experience in corporate and business strategy consulting and merger and acquisition advisory services. In addition, Patrick Machado has announced his retirement from the Chimerix Board effective at the Company's 2024 Annual Meeting of Stockholders in June, after ten years of service.

#### **First Quarter 2024 Financial Results**

Chimerix reported a net loss of \$21.9 million, or \$0.25 per basic and diluted share, for the first quarter of 2024. During the same period in 2023, Chimerix recorded a net loss of \$21.4 million, or \$0.24 per basic and diluted share.

Research and development expenses were \$18.8 million for the first quarter of 2024 and the same period in 2023.

General and administrative expenses decreased to \$5.5 million for the first quarter of 2024, compared to \$5.7 million for the same period in 2023.

Chimerix's balance sheet at March 31, 2024 included \$188.2 million of capital available to fund operations, approximately 89.6 million outstanding shares of common stock and no outstanding debt.

**Conference Call and Webcast**

Chimerix will host a conference call and live audio webcast to discuss first quarter 2024 financial results and provide a business update today at 8:30 a.m. ET. To access the live conference call, please dial 646-307-1963 (domestic) or 800-715-9871 (international) at least five minutes prior to the start time and refer to conference ID 1246220. A live audio webcast of the call will also be available on the Investors section of Chimerix's website, [www.chimerix.com](http://www.chimerix.com). An archived webcast will be available on the Chimerix website approximately two hours after the event.

**About Chimerix**

Chimerix is a biopharmaceutical company with a mission to develop medicines that meaningfully improve and extend the lives of patients facing deadly diseases. The Company's most advanced clinical-stage development program, ONC201, is in development for H3 K27M-mutant glioma.

**Forward-Looking Statements**

This press release contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995 that are subject to risks and uncertainties that could cause actual results to differ materially from those projected. Forward-looking statements include those relating to, among other things, applications for Provisional Determination and Provisional Determination in Australia, plans for accelerated approval from other global regulators, completion of the ACTION study, and the characteristics and development of ONC206. Among the factors and risks that could cause actual results to differ materially from those indicated in the forward-looking statements are risks related to the ability to obtain and maintain accelerated approval; risks related to the timing, completion and outcome of the Phase 3 ACTION study of ONC201; risks associated with repeating positive results obtained in prior preclinical or clinical studies in future studies; risks related to the clinical development of ONC206; and additional risks set forth in the Company's filings with the Securities and Exchange Commission. These forward-looking statements represent the Company's judgment as of the date of this release. The Company disclaims, however, any intent or obligation to update these forward-looking statements.

**CONTACT:**

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212-362-1200  
[Will@sternir.com](mailto:Will@sternir.com)

**CHIMERIX, INC.**  
**CONSOLIDATED BALANCE SHEETS**  
(in thousands, except share and per share data)  
(unaudited)

	March 31, 2024	December 31, 2023
<b>ASSETS</b>		
Current assets:		
Cash and cash equivalents	\$ 19,026	\$ 27,661
Short-term investments, available-for-sale	140,002	155,174
Accounts receivable	1	4
Prepaid expenses and other current assets	4,003	6,271
Total current assets	163,032	189,110
Long-term investments	29,133	21,657
Property and equipment, net of accumulated depreciation	263	224
Operating lease right-of-use assets	1,354	1,482
Other long-term assets	260	301
Total assets	\$ 194,042	\$ 212,774
<b>LIABILITIES AND STOCKHOLDERS' EQUITY</b>		
Current liabilities:		
Accounts payable	\$ 3,823	\$ 2,851
Accrued liabilities	15,112	15,592
Total current liabilities	18,935	18,443
Line of credit commitment fee	—	125
Lease-related obligations	1,005	1,177
Total liabilities	19,940	19,745
Stockholders' equity:		
Preferred stock, \$0.001 par value, 10,000,000 shares authorized at March 31, 2024 and December 31, 2023; no shares issued and outstanding as of March 31, 2024 and December 31, 2023	—	—
Common stock, \$0.001 par value, 200,000,000 shares authorized at March 31, 2024 and December 31, 2023; 89,692,902 and 88,929,300 shares issued and outstanding as of March 31, 2024 and December 31, 2023, respectively	90	89
Additional paid-in capital	991,583	988,457
Accumulated other comprehensive (gain) loss, net	(178)	7
Accumulated deficit	(817,393)	(795,524)
Total stockholders' equity	174,102	193,029
Total liabilities and stockholders' equity	\$ 194,042	\$ 212,774

CHIMERIX, INC.  
**CONSOLIDATED STATEMENTS OF OPERATIONS AND COMPREHENSIVE LOSS**  
(in thousands, except share and per share data)  
(unaudited)

	Three Months Ended March 31,	
	2024	2023
<b>Revenues:</b>		
Contract and grant revenue	—	234
Licensing revenue	—	49
Total revenues	—	283
<b>Operating expenses:</b>		
Research and development	18,844	18,822
General and administrative	5,546	5,679
Total operating expenses	24,390	24,501
Loss from operations	(24,390)	(24,218)
<b>Other income:</b>		
Interest income and other, net	2,521	2,846
<b>Net loss</b>	(21,869)	(21,372)
<b>Other comprehensive (loss) income:</b>		
Unrealized (loss) gain on debt investments, net	(185)	106
Comprehensive loss	\$ (22,054)	\$ (21,266)
<b>Per share information:</b>		
Net loss, basic and diluted	\$ (0.25)	\$ (0.24)
Weighted-average shares outstanding, basic and diluted	89,259,106	88,294,624



# Chimerix Corporate Presentation

May 1, 2024



## Forward-Looking Statements

This presentation contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995 that are subject to risks and uncertainties that could cause actual results to differ materially from those projected. Forward-looking statements include those relating to, among other things, the enrollment and timing of data for the Phase 3 ACTION study, the expected results of Phase 3 ACTION study of ONC201 and dose escalation trials of ONC206, our ability to successfully commercialize our current and future product candidates, the potential for royalty and milestone revenue from strategic collaborations, and projections regarding the potential market opportunity, funding and timing of future data readouts for our products. Among the factors and risks that could cause actual results to differ materially from those indicated in the forward-looking statements are risks related to the timing, completion and outcome of the Phase 3 ACTION study of ONC201; risks associated with repeating positive results obtained in prior preclinical or clinical studies in future studies; risks related to the clinical development of ONC206; and additional risks set forth in the Company's filings with the Securities and Exchange Commission. These forward-looking statements represent the Company's judgment as of the date of this release. The Company disclaims, however, any intent or obligation to update these forward-looking statements.

## Investment highlights and key catalysts



Ph 3 ACTION study  
actively enrolling



Significant  
commercial potential



Corporate capability  
and financial flexibility

### ONC201 Ph 3 trial enrolling - interim OS data expected in 2025, final OS expected in 2026

First-Line H3 K27M-mutant diffuse glioma – The ACTION Study

- ✓ No approved therapies targeting H3 K27M diffuse glioma, an area of high unmet medical need
- ✓ First in class mechanism of action with clinical validation
- ✓ Patent protection thru 2037 (potential additional US patent term extension)

### ONC206 in dose escalation

- ✓ Investigator reported response in non-H3 K27M mutated recurrent glioblastoma patient
- ✓ Dose escalation on track for completion beginning in mid 2024

### Early-stage pipeline leverages external capital

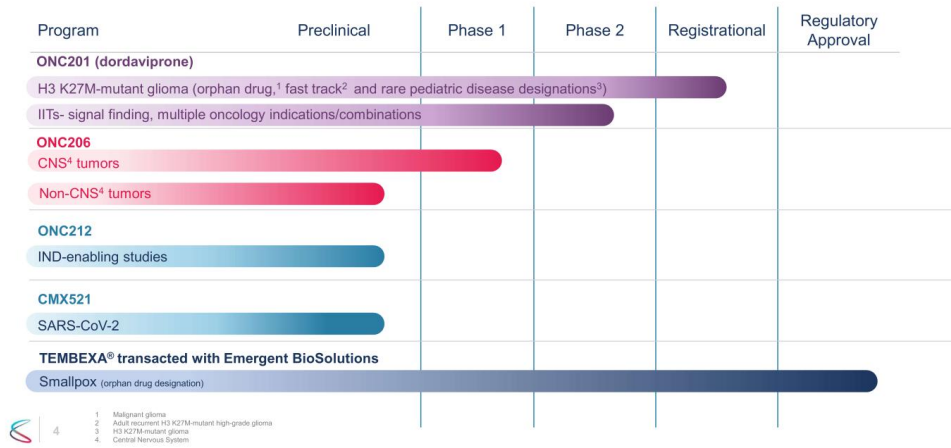
- ✓ Pre-clinical programs potential to advance to clinic or partner (ONC212, CMX521)
- ✓ Robust business development search and evaluation process


**\$188 million in capital to fund operations as of March 31, 2024, no debt**



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### Deep pipeline across all development stages



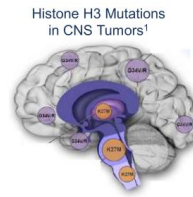
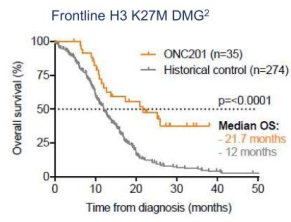

 1. Malignant glioma  
 2. Adult recurrent H3 K27M-mutant high-grade glioma  
 3. H3 K27M-mutant glioma  
 4. Central Nervous System

**ONC201 (dordaviprone)  
Phase 2 Data Analysis**



## ONC201 data suggests potential to address high unmet need

- H3 K27M mutation is predominantly found among diffuse midline gliomas (DMGs) in young adults and children
- Frontline radiotherapy remains standard of care with transient benefit; resection often not feasible
- DMGs harboring the H3 K27M mutation are WHO Grade IV; historically invariably lethal
- Consistently longer OS of ONC201-treated H3 K27M DMG patients across:
  - Diverse external controls (historical, trials)
  - Sensitivity analysis (early event censoring)
  - Isolated tumor locations (thalamus, brainstem)



Recurrent H3 K27M DMG<sup>3</sup>

	Natural Disease History <sup>4</sup> (n=43)	ONC201 Phase 2 (n=50)
Median OS, mo (95% CI)	5.1 (3.9-7.7)	13.7 (8-20.3)
OS @ 12mo (95% CI)	23.6% (11.7-37.9)	57% (41-70)
OS @ 24mo (95% CI)	11.1% (3.3-24.2)	35% (21-49)



<sup>1</sup> Lulla RR et al. Sci Adv. 2016;2(3):e1501354

<sup>2</sup> Kochmann, Carl et al. "Clinical efficacy of ONC201 in H3 K27M-mutant diffuse midline glioma is driven by disruption of integrated metabolic and epigenetic pathways", Cancer Discovery, Aug 16, 2023

<sup>3</sup> In company sponsored studies

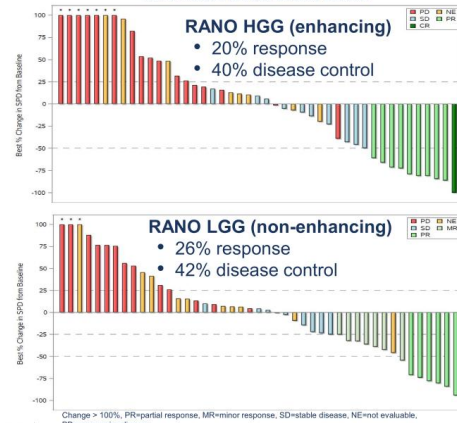
<sup>4</sup> The median OS was 5.1 months for the subset of patients with H3 K27M-mutant diffuse glioma excluding DIPG, CSF dissemination, spinal or leptomeningeal disease (N=12), OS at 12 mos was 25.0%, OS at 24 mos was 16.7%

## Phase 2 efficacy for ONC201 in recurrent H3 K27M DMG

- ONC201 monotherapy exhibited durable, clinically meaningful efficacy in recurrent H3 K27M-mutant DMG
  - Overall Response Rate (ORR) of 30% (95% CI: 18 - 45%) by RANO HGG and/or LGG dual reader BICR
  - RANO-HGG criteria assessed by dual reader BICR
    - ORR 20% (95% CI: 10 – 34%)
    - Median Duration of Response (DOR) 11.2 months (95% CI: 3.8 – not reached)
    - Median time to response 8.3 months (range 1.9 – 15.9)
    - Disease control rate 40% (95% CI: 26 – 55%)
    - PFS at 6 months 35% (95% CI: 21 – 49%); PFS at 12 months 30% (95% CI: 17 – 44%)
  - RANO-LGG criteria assessed by dual reader BICR
    - ORR 26% (95% CI: 15 – 40%)
  - Overall survival
    - 12 months: 57% (95% CI: 41 – 70%)
    - 24 months: 35% (95% CI: 21 – 49%)
- Improvements observed in performance status and reduction in corticosteroid use
- All Serious Adverse Events considered not related to ONC201 by sponsor

### ONC201 waterfall plot – 30% RANO HGG / LGG response

ONC201 Ph 2 Efficacy Analysis by BICR in Recurrent H3 K27M-mutant Diffuse Midline Glioma



Arrilaga-Romany, et al, Journal of Clinical Oncology, Feb 2024

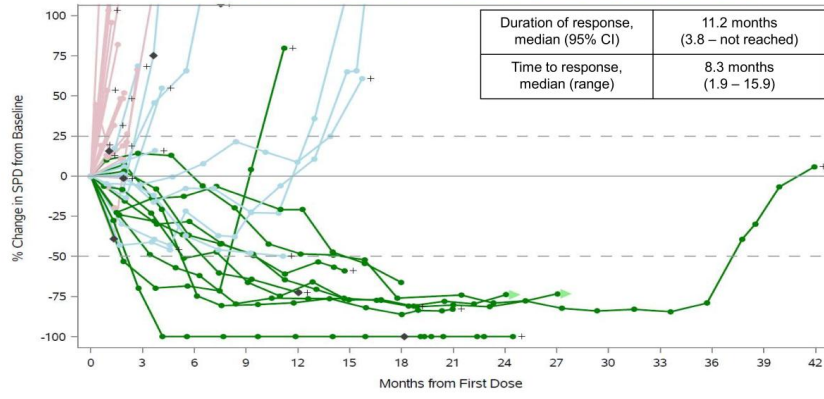
- Strict selection criteria to ensure responses attributable to single agent treatment
- Responses require both imaging and clinical criteria
- Dual reader blinded independent central review (BICR)
- Growing consensus that assessment of enhancing and non-enhancing disease (RANO-HGG and RANO-LGG criteria) is needed for diffuse midline glioma





### Clinically meaningful and durable RANO-HGG responses

ONC201 Phase 2 Efficacy Analysis by BICR in Recurrent H3 K27M-mutant Diffuse Midline Glioma



SPD= sum of products of perpendicular diameters (target enhancing lesions per BICR)  
 Only patients with measurable target enhancing lesions by BICR at baseline and with post-baseline evaluations are included.  
 Three patients did not have on-treatment monotherapy MRIs available for BICR; one patient censored prior to first on-treatment MRI; one patient did not have measurable target lesion.

## ONC201 Safety

### Clinical Pharmacology Studies n=235

- ONC201 was well tolerated at various dose levels (125 mg to 750 mg).
- The majority of treatment-related adverse events across the clinical pharmacology studies were Grade 1 (mild) and transient.
- Most common treatment-related AEs were grade 1 nausea and dizziness.
- ONC201 in the clinical pharmacology program, which included:
  - Dose-escalation, food-effect, & formulation evaluation
  - Thorough QT Study
  - Drug-drug interaction (DDI) studies: Strong CYP3A4 inhibitor and Proton-pump inhibitor studies
  - Renal impairment study
  - Hepatic impairment study
  - Mass balance study
  - Formulation Bioequivalence studies



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1. Based on available data from October 2023 Investigator brochure

### Glioma Patient Studies

#### Treatment-related Adverse Events in >5%

Treatment-related Adverse Events, Integrated Safety Data Set, (N=422 glioma patients) <sup>1</sup>	Related TEAEs	
	All grades	Grade ≥ 3
Any Treatment-related AE	56.2%	11.6%
Fatigue	20.1%	2.1%
Nausea	15.4%	0
Vomiting	11.1%	0.9%
Lymphocyte count decreased	9.2%	1.9%
ALT increased	8.5%	1.4%
Headache	7.3%	0
White blood cell count decreased	7.1%	0.2%
Decreased appetite	5.7%	0
Hypophosphataemia	5.2%	0

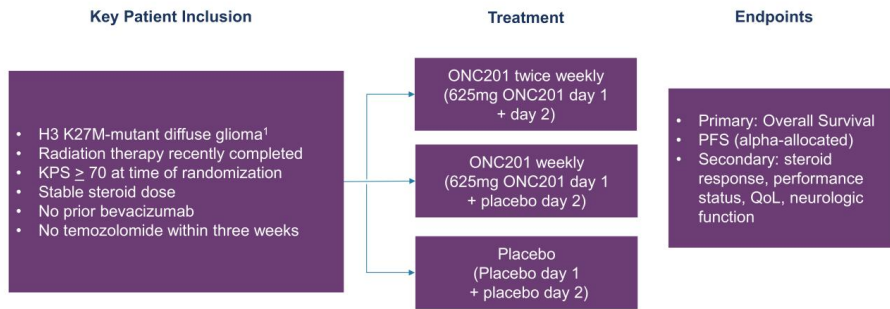
Only 3% patients experienced a treatment-related AE that led to study drug modification or discontinuation.

## ONC201 Phase 3 ACTION Study Summary



### Pivotal Phase 3 ACTION trial design

Now enrolling, a randomized, double-blind, placebo-controlled, multicenter international study in 450 newly diagnosed diffuse glioma patients whose tumor harbors an H3 K27M-mutation.



## Design provides multiple paths for success

Interim data expected in 2025 and final data in 2026

Independent comparisons for each ONC201 arm versus control will be made at each timepoint.

### First OS<sup>(1)</sup> Interim

- ~164 events
- Success at HR<sup>(3)</sup>~0.52

### PFS by RANO HGG<sup>(2)</sup>

- ~286 events
- Success at HR~0.68

### Second OS Interim

- ~246 events
- Success at HR~0.64

### Final OS

- ~327 events
- Success at HR~0.73

Powering assumptions 0.65 expected HR for OS and 0.60 expected HR for PFS



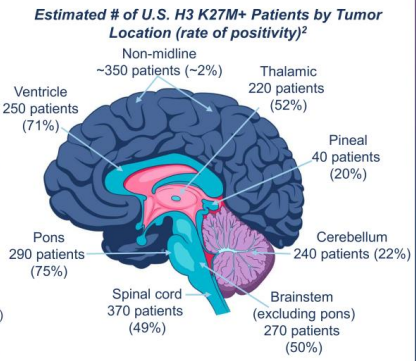
1. Overall Survival (OS)
2. Progression-free survival (PFS). PFS may provide valuable data for regulatory discussions.
3. Hazard Ratio

## ONC201 Market Opportunity Assessment



**Approximately 21,000 gliomas reported in the U.S. each year, affecting all locations in the brain<sup>1</sup>**

- **~40%** of 4,000+ **midline gliomas** are expected to harbor the H3 K27M mutation<sup>2</sup>
- **~2%** of 17,000+ **non-midline gliomas** are expected to harbor the H3 K27M mutation<sup>2</sup>
- Each year it is estimated that **~2,000** patients are affected by H3 K27M-mutant glioma in the U.S.;
- **~5,000** patients in the top seven global markets (by extrapolation of the estimated US incidence rate to the top seven markets)
- No approved therapies specifically for H3 K27M mutant glioma



[1] Ozonoff GB, et al. *Neuro Oncol*. 2022;24(Suppl 5):v1-v95. [2] Patient numbers and percentages are estimates (weighted avg per sample size) derived from a review of the literature from 2012-2020: [Althera K, et al. *Neuro Oncol*. 2014;16(11):140-6; Peng L, et al. *Hum Pathol*. 2015;46(11):1626-32; Solomon DA, et al. *Brain Pathol*. 2016;26(5):589-600;Pavali S, et al. *Acta Neuropathol Commun*. 2016;4(1):10; Abbas MS, et al. *Ann N Y Acad Sci*. 2017;1401:100-108; Wang L, et al. *Hum Pathol*. 2018;79:88-96; Castel D, et al. *Acta Neuropathol Commun*. 2018;6(6):117; Kuzmenko M, et al. *Neuro Oncol*. 2018;20(11):21-31; Abbas MS, et al. *ANN N Y Acad Sci*. 2018;1613:1034-1035; Duffner C, et al. *Acta Neuropathol (Berl)*. 2011;120(7):1025-1035; Sivara P, et al. *Neuro Oncol*. 2011;13(11):134-41; Mackay A, et al. *Cancer Cell*. 2013;23(4):526-537 e5; Huang T, et al. *Oncotarget*. 2018;9(9):3712-3724; Schreck KC, et al. *J Neurooncol*. 2018;143(1-2):17-24; Chiba K, et al. *World Neurology*. 2020;11(4):423-425; Nakaya A, et al. *Neuro Oncol*. 2014;16(Suppl 3):109-110; Castel D, et al. *Acta Neuropathol*. 2015;120(5):615-21; Phuong-Duong DA, et al. *Acta Neuropathol*. 2012;124(5):459-474; Roca A, et al. *Neuro Oncol*. 2020;22(11):195-202; Giordano M, et al. *Childs Nerv Syst*. 2020;36(4):697-704; Wu G, et al. *Neuro Genet*. 2014;4(5):444-450; Wu G, et al. *Neuro Genet*. 2012;4(1):211-8; Taylor JS, et al. *Neuro Genet*. 2014;4(5):457-461; Sarrafian AA, et al. *Acta Neuropathol*. 2014;127(6):881-95; Elmer C, et al. *Neuro Oncol*. 2012;14(11):1411-1412; Buchkovec P, et al. *Acta Neuropathol*. 2014;126(4):574-81; Doolan FN, et al. *J Neuropathol Exp Neurol*. 2018;174(1):101-111; Chih HC, et al. *Acta Neuropathol Commun*. 2020;8(1):40; V.S., et al. *Neurogenetics*. 2019;9(4):307-310; Green M, et al. *Acta Neuropathol*. 2015;128(1):45-7; Abu Bakr, et al. *Hum Pathol*. 2018;49(12):2296-2344; Conry EE, et al. *J Neurooncol*. 2020;148(3):607-611; Dooz A, et al. *J Clin Neurosci*. 2020;82(Pt A1):3-8; Alkandari OD, et al. *J Neurosurg Spine*. 2021;35(8):834-843; Nakata S, et al. *Brain Tumor Pathol*. 2022;34(3):113-119; Namura M, et al. *Acta Neuropathol*. 2017;134(6):941-956; Eschtbacher KL, et al. *Am J Surg Pathol*. 2021;45(8):1042-1050; P'Anisco MS, et al. *J Neurooncol*. 2018;140(1):63-78; Karthikeyan A, et al. *Acta Neuropathol*. 2015;129(3):669-76; Alzobaida A, et al. *Neuro Oncol*. 2017;19(10):1327-1337].

### H3 K27M-mutant glioma: rapid ramp to peak revenue expected

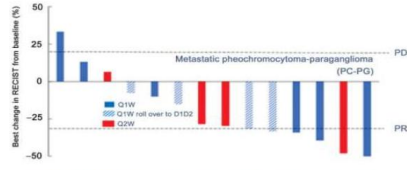
- No approved therapies for H3 K27M mutant glioma, ONC201 is the leading program targeting this mutation globally
- Potential market opportunity ~\$750 million
- Approximately 5,000 patients in top seven markets<sup>1</sup>
- Ultra-orphan indication drug pricing
- H3 K27M mutations most often in children / young adults
- Low barriers to adoption
  - No effective alternative therapies
  - High unaided awareness among neuro-oncologists
  - Mutation routinely identified by existing diagnostics
  - Longer-term, potentially combinable with other glioma therapies
- Patent protection for lead indication into 2037 - potential U.S. patent term extension (up to five years)



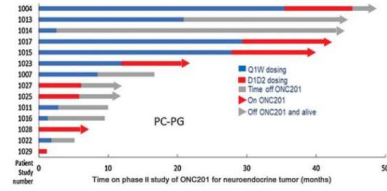


## Potential for ONC201 beyond brain tumors

ONC201 efficacy results in dopamine-secreting tumors outside the brain



Ph 2 Study of ONC201 in Neuroendocrine Tumors in investigator-reported data from clinical trial NCT # (NT03034200)



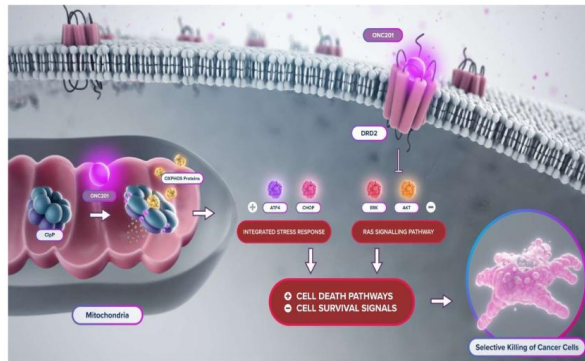
- Single agent responses in Ph 2 neuroendocrine trial of ONC201 observed in subset (PCPG)
- PCPG are adrenal-related tumors with elevated DRD2 expression
- Five patients have been treated > 1 year
- Fewer short-term and potential long-term toxicities than other paraganglioma therapies

## ONC201 Mechanism of Action



## ONC201 directly engages DRD2 and ClpP

ONC201 upregulates integrated stress response, inactivates Akt/ERK, and selectively induces tumor cell death



- ONC201 can selectively induce apoptosis in cancer cells by altering the activity of two protein targets
- DRD2 antagonism
  - DRD2 is a G protein-coupled neuroreceptor that regulates Ras signaling
  - ONC201 antagonizes DRD2, inhibiting Ras signaling pathways
- ClpP agonism
  - ClpP normally degrades misfolded proteins in mitochondria
  - ONC201 modifies ClpP conformation, promoting excess degradation of specific mitochondrial proteins important for cancer cell viability



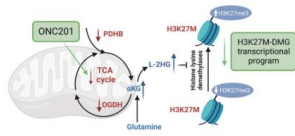
# Mechanism and frontline clinical efficacy in H3 K27M DMG

CANCER DISCOVERY

RESEARCH ARTICLE | AUGUST 16 2023

Clinical efficacy of **ONC201** in H3K27M-mutant diffuse midline gliomas is driven by disruption of integrated metabolic and epigenetic pathways

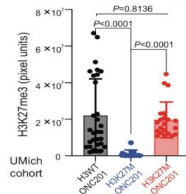
## Mitochondrial effects reverse H3 K27me3-loss hallmark of H3 K27M



Provides ClpP connection to H3 K27M  
Anchors MOA directly to targeting H3 K27M

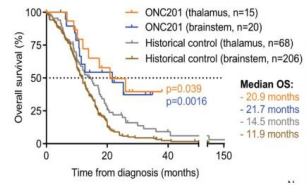


## H3 K27me3-loss reversal evident in ONC201-treated H3 K27M patients



Increased confidence in Ph3 dose

## Front-line ONC201 following RT survival benefit



Extends documented benefit to front-line, pediatrics, and brainstem

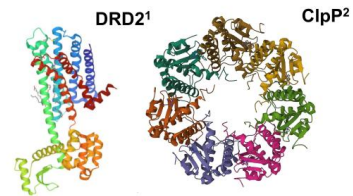
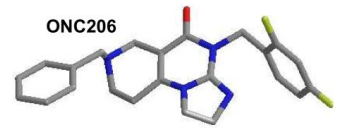
Median OS:  
- 23.9 months  
- 21.7 months  
- 14.5 months  
- 11.9 months

**ONC206**



## ONC206: oral brain penetrant DRD2 antagonist + ClpP agonist

- Second generation imipridone
  - Increased potency
  - Indications beyond H3 K27M-mutant glioma
- Monotherapy efficacy across multiple preclinical models of CNS and non-CNS tumors
  - Tumor regression in patient-derived xenografts
- Oral dose escalation trials with intensified dosing are ongoing in CNS cancers
- Monotherapy response in recurrent GBM patient without the H3 K27M mutation
  - Differentiated from ONC201 glioma responses that were exclusive to H3 K27M

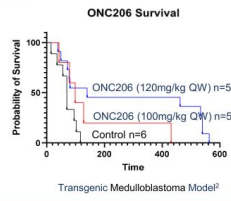


## ONC206 monotherapy activity CNS and non-CNS cancer models

### CNS Tumors

Glioblastoma<sup>1</sup>

Medulloblastoma<sup>2</sup>



### Non-CNS Solid Tumors

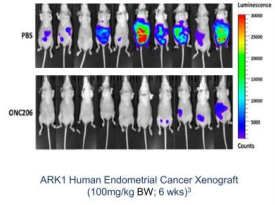
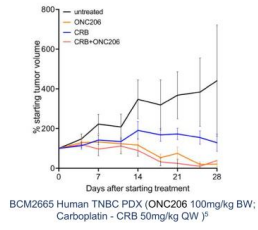
Cholangiocarcinoma<sup>1</sup>

Endometrial cancer<sup>3</sup>

Pheochromocytoma/paraganglioma

Ovarian cancer<sup>4</sup>

Triple-negative breast cancer<sup>5</sup>



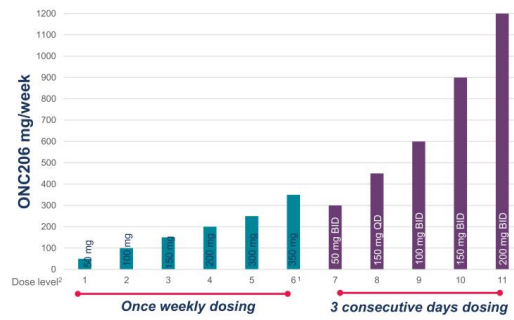
23

1. Theeler et al. SMO 2020
2. Tzavara et al. AACR 2024
3. Ho et al. Cancer 2020
4. Tucker et al. American Journal of Cancer Research, 2022
5. Baek et al. SABC 2023

## ONC206 dose escalation to more frequent dosing ongoing

Dose escalation on track for completion in mid 2024

- No DLTs observed with weekly dosing<sup>3</sup>
- Similar safety profile in adults and pediatrics
- Majority of treatment-related AEs are mild to moderate
- Most common treatment-related events are fatigue, lymphocyte count decreased, and vomiting
- No dose related toxicity with dose escalation<sup>3</sup> – dose escalation continuing



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1. Dose level 6 was conducted in adults only
2. Pediatric dose scaled by body weight
3. As of publication date May 1, 2024



## Ongoing pipeline development

- ONC212 GPR132 + ClpP agonist
  - GLP-tox studies complete, potential to advance to IND, work performed with support from academic grants
  - Preclinical studies are ongoing to evaluate additional oncology indications and predictive biomarkers for ONC212 for clinical development
- CMX521 anti-SARS-CoV-2 preclinical activity
  - Monotherapy efficacy in mouse-adapted SARS-CoV-2-MA10 model across multiple endpoints
  - \$2m grant to fund research collaboration with University of North Carolina/READDI<sup>1</sup>



## Corporate Update



## TEMBEXA® deal term summary

Emergent BioSolutions is an experienced biodefense company collaborating with government agencies to protect public health

Terms summary:

- \$238 million received upfront at closing in Q3 2022
- Up to an additional \$124 million in potential BARDA procurement milestones
- 20% royalty on future U.S. gross profit with volumes above 1.7 million courses of therapy
- 15% royalty of all international gross profit
- Up to an additional \$12.5 million in development milestones

**TEMBEXA**<sup>®</sup>  
brincidofovir  
1.0 mg/mL oral suspension | 100 mg tablets



## Financial strength supports development through key catalysts



Ph 3 ACTION study  
actively enrolling



Significant  
commercial potential



Corporate capability  
and financial flexibility

### ONC201 Ph 3 trial enrolling - interim OS data expected in 2025, final OS expected in 2026

First-Line H3 K27M-mutant diffuse glioma – The ACTION Study

- ✓ No approved therapies targeting H3 K27M diffuse glioma, an area of high unmet medical need
- ✓ First in class mechanism of action with clinical validation
- ✓ Patent protection thru 2037 (potential additional US patent term extension)

### ONC206 in dose escalation

- ✓ Investigator reported response in non-H3 K27M mutated recurrent glioblastoma patient
- ✓ Dose escalation on track for completion beginning in mid 2024

### Early-stage pipeline leverages external capital

- ✓ Pre-clinical programs potential to advance to clinic or partner (ONC212, CMX521)
- ✓ Robust business development search and evaluation process

**\$188 million in capital to fund operations as of March 31, 2024, no debt**

Chimerix Corporate  
Presentation



