

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): November 2, 2023

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 November 2, 2023, Chimerix, Inc. (the “Company”) announced our financial results for the nine months ended September 30, 2023 in the press release attached hereto as Exhibit 99.1 and incorporated herein by reference.

Item 7.01 Regulation FD Disclosure.

On November 2, 2023, 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 Exhibit 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 Exhibit 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	Press Release of Chimerix, Inc. dated November 2, 2023.
99.2	Chimerix, Inc. Corporate Presentation, dated November 2, 2023.
104	Cover Page Interactive Data File (embedded within the Inline XBRL document).

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: November 2, 2023

By: /s/ Michael T. Andriole
Name: Michael T. Andriole
Title: President and Chief Executive Officer



Chimerix Reports Third Quarter 2023 Financial Results and Provides Operational Update

– Phase 3 ACTION Study Ongoing with 113 Sites Activated Across 12 Countries; Interim Survival and PFS Data on Track to Report in 2025 –

– Actively Recruiting ONC206 Dose Escalation Studies; Enrollment on Track to Complete First Half 2024 –

– Conference Call at 8:30 a.m. ET Today –

DURHAM, N.C., November 2, 2023 (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 third quarter ended September 30, 2023 and provided an operational update.

"The third quarter was marked by strong progress across our first-in-class imipridone pipeline, including continued enrollment in our global Phase 3 ACTION study of ONC201 for the treatment of H3 K27M-mutant diffuse glioma," said Mike Andriole, Chief Executive Officer of Chimerix. "We continue to see strong interest in the ACTION study globally supported by a robust publication strategy, including the recently published front-line treatment and mechanistic data in the peer-reviewed journal Cancer Discovery. These data demonstrated a statistically significant increase in median overall survival (mOS) versus historical controls in a patient population with very few treatment options. As enrollment in the ACTION study continues to progress, we are also working extensively on our second-generation compound, ONC206, to identify biomarkers in patients most likely to respond in future primary efficacy studies. These early data indicate such studies may include both Central Nervous System (CNS) tumors as well as solid tumors outside of the CNS. Finally, we were delighted to join the neuro-oncology community at the European Association of Neuro-Oncology (EANO) Annual Meeting in Rotterdam last month and look forward to the upcoming Society for Neuro-Oncology (SNO) Annual Meeting in Vancouver where multiple oral presentations will highlight a series of preclinical and clinical studies of ONC201 as both monotherapy and as a potential backbone in combinatorial diffuse midline glioma (DMG) treatment settings."

ONC201 for Treatment of H3 K27M-Mutant Diffuse Glioma

The Phase 3 ACTION trial is currently enrolling patients at 113 sites in 12 countries and remains on track to report first interim overall survival data in early 2025.

The ACTION trial is enrolling patients shortly after front-line radiation therapy. The study is designed to enroll 450 patients randomized 1:1:1 to receive 625mg of ONC201 once per week (the Phase 2 dosing regimen), 625mg twice per week on two consecutive days or placebo. The dose will be scaled by body weight for patients <52.5kg.

In August 2023, a Cancer Discovery publication reported promising survival outcomes for 71 H3 K27M-DMG patients treated with ONC201. In addition, ONC201 reversed a molecular signature of the H3 K27M mutation in patient's tumor samples.

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. To date, ONC206 has been generally well tolerated with no dose limiting toxicities. The dose escalation trials have completed the once weekly dosing schedules. The study is currently dosing at more frequent dose schedules that are expected to increase the duration of therapeutic exposure.

Third Quarter 2023 Financial Results

Chimerix reported a net loss of \$24.0 million, or \$0.27 per basic and diluted share, for the third quarter of 2023. During the same period in 2022, Chimerix recorded net income of \$241.4 million, or \$2.75 per basic and diluted share.

Research and development expenses increased to \$17.4 million for the third quarter of 2023, compared to \$15.3 million for the same period in 2022.

General and administrative expenses increased to \$9.3 million for the third quarter of 2023, compared to \$5.3 million for the same period in 2022. This increase is in connection with the retirement of the CEO and transition to Chairman which resulted in a one-time non-cash expense being recognized related to historical equity grants, the vesting of which remain contingent on future service in the new role.

Chimerix's balance sheet at September 30, 2023 included \$217 million of capital available to fund operations, approximately 88.9 million outstanding shares of common stock and no outstanding debt. Chimerix expects to end the year with over \$200 million in cash and cash equivalents, which is expected to be sufficient to fund operations through final ACTION study data expected in 2026.

Conference Call and Webcast

Chimerix will host a conference call and live audio webcast to discuss third quarter 2023 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 5615320. A live audio webcast of the call will also be available on the Investors section of Chimerix's website, 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, enrollment and interest in the Phase 3 ACTION study, the potential future studies of ONC206, the ability to generate or reproduce clinical and pre-clinical findings, and projections regarding timing of enrollment of our clinical studies and future data readouts, and the Company's cash position and runway. 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.

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

	September 30, 2023	December 31, 2022
ASSETS		
Current assets:		
Cash and cash equivalents	\$ 14,118	\$ 25,842
Short-term investments, available-for-sale	180,357	191,492
Accounts receivable	11	1,040
Prepaid expenses and other current assets	6,136	9,764
Total current assets	200,622	228,138
Long-term investments	22,514	48,626
Property and equipment, net of accumulated depreciation	248	227
Operating lease right-of-use assets	1,606	1,964
Other long-term assets	292	386
Total assets	\$ 225,282	\$ 279,341
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	\$ 2,502	\$ 3,034
Accrued liabilities	13,008	17,381
Total current liabilities	15,510	20,415
Line of credit commitment fee	125	250
Lease-related obligations	1,344	1,819
Total liabilities	16,979	22,484
Stockholders' equity:		
Preferred stock, \$0.001 par value, 10,000,000 shares authorized at September 30, 2023 and December 31, 2022; no shares issued and outstanding as of September 30, 2023 and December 31, 2022	—	—
Common stock, \$0.001 par value, 200,000,000 shares authorized at September 30, 2023 and December 31, 2022; 88,891,300 and 88,054,127 shares issued and outstanding as of September 30, 2023 and December 31, 2022, respectively	89	88
Additional paid-in capital	986,202	970,535
Accumulated other comprehensive loss, net	(625)	(337)
Accumulated deficit	(777,363)	(713,429)
Total stockholders' equity	208,303	256,857
Total liabilities and stockholders' equity	\$ 225,282	\$ 279,341

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

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2023	2022	2023	2022
Revenues:				
Procurement revenue	\$ —	\$ 31,971	\$ —	\$ 31,971
Contract and grant revenue	11	503	271	503
Licensing revenue	—	81	49	536
Total revenues	11	32,555	320	33,010
Cost of goods sold	—	333	—	447
Gross profit	11	32,222	320	32,563
Operating expenses:				
Research and development	17,396	15,263	53,144	52,350
General and administrative	9,304	5,313	19,431	16,785
Total operating expenses	26,700	20,576	72,575	69,135
(Loss) income from operations	(26,689)	11,646	(72,255)	(36,572)
Other income:				
Interest income and other, net	2,703	199	8,321	182
Gain on sale of business, net	—	229,670	—	229,670
(Loss) income before income taxes	(23,986)	241,515	(63,934)	193,280
Income tax expense	—	153	—	153
Net (loss) income	(23,986)	241,362	(63,934)	193,127
Other comprehensive (loss) income:				
Unrealized gain (loss) on debt investments, net	188	31	(288)	(16)
Comprehensive (loss) income	\$ (23,798)	\$ 241,393	\$ (64,222)	\$ 193,111
Per share information:				
Net (loss) income, basic	\$ (0.27)	\$ 2.75	\$ (0.72)	\$ 2.21
Net (loss) income, diluted	\$ (0.27)	\$ 2.75	\$ (0.72)	\$ 2.17
Weighted-average shares outstanding, basic	88,620,666	87,634,888	88,500,813	87,388,624
Weighted-average shares outstanding, diluted	88,620,666	87,814,330	88,500,813	89,070,831

Chimerix Corporate Presentation

November 2, 2023



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 probability of success of the Phase 3 ACTION study, the potential filing and approval of an NDA for ONC201 and subsequent commercial opportunity, the implications of the monotherapy radiographic partial response observed during ONC206 dose escalation; the ability to reproduce clinical and pre-clinical findings, and projections regarding funding and timing of future data readouts. 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



High probability of success for Phase 3 ACTION study of ONC201

- Phase 2 study designed to isolate single agent activity in difficult treatment setting
- Durable responses associated with OS and other forms of clinical benefit
- Numerous independent and natural disease history studies support potential survival advantage
- Genetically selected patient population limits patient heterogeneity



Low barriers to commercial potential for ONC201






- Terminal disease with no effective therapeutic options
- High awareness for program within neuro-oncology community
- U.S. patent exclusivity through at least 2037
- Global revenue potential of ~\$750m in first indication alone



Corporate capability and financial flexibility

- Leadership team successfully executed large scale studies and regulatory approvals
- Strong balance sheet fully funds ACTION study and potential ONC206 catalysts
- Opportunity for continued non-dilutive TEMBEXA milestones and royalties adds flexibility
- Track record of objectivity in creating paths to capture value

Deep pipeline across all development stages

Program	Preclinical	Phase 1	Phase 2	Registrational	FDA review	Collaborators
ONC201 (dordaviprone)						
H3 K27M-mutant glioma (orphan drug, ¹ fast track ² and rare pediatric disease designations ³)	Progressing through Phase 2					
IITs- signal finding, multiple oncology indications/combinations	Progressing through Phase 1					
ONC206						National Institutes of Health
CNS ⁴ tumors	Progressing through Phase 1					
ONC212						MD Anderson Cancer Center
IND-enabling studies	Progressing through Preclinical					
CMX521						
SARS-CoV-2	Progressing through Preclinical					
TEMBEXA® transacted with Emergent BioSolutions						
Smallpox (orphan drug designation)	APPROVED June 4, 2021					



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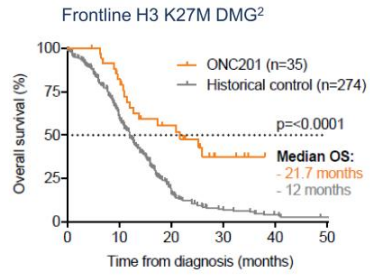
1. Malignant glioma
2. Adult recurrent H3 K27M-mutant high-grade glioma
3. H3 K27M-mutant glioma
4. Central Nervous System
5. Rapidly Emerging Antiviral Drug Development Initiative

ONC201 (dordaviprone) Phase 2 Efficacy Analysis

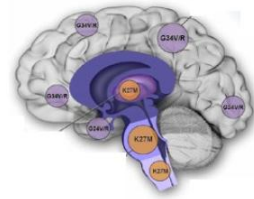


H3 K27M-mutant diffuse glioma: high unmet need

- 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)



Histone H3 Mutations in CNS Tumors¹



Recurrent H3 K27M DMG³

	Natural Disease History ⁴ (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)



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

² Koschmann, 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

³ In company sponsored studies

⁴ 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 SAEs considered not related to ONC201 by sponsor

FDA-aligned criteria for Phase 2 efficacy analysis to isolate ONC201 single agent activity

Objective

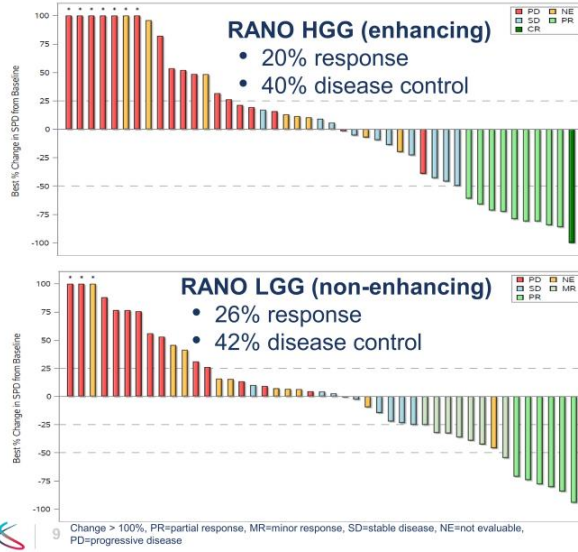
- To evaluate monotherapy efficacy of ONC201 in recurrent H3 K27M-mutant diffuse midline glioma

Eligibility

- Age ≥ 2 yo and received ONC201 under studies ONC006, ONC013, ONC014, ONC016, or ONC018
- Diffuse glioma with a known H3 K27M mutation and involvement of a midline structure of the brain
- Progressive and measurable disease on contrast-enhanced brain MRI by RANO-High Grade Glioma (HGG) criteria
- Prior therapy with at least radiation
- Washouts prior to first ONC201 dose:
 - Radiation: 90 days
 - Temozolomide: 23 days / Antibodies (e.g., bevacizumab): 42 days / Other anticancer therapies: 28 days
- Baseline Performance Status ≥ 60
- Corticosteroids stable or decreasing for at least 3 days prior to baseline scan
- Excluded: DIPG, primary spinal tumors, atypical and non-astrocytic hist., leptomeningeal spread, CSF dissemination

ONC201 waterfall plot – 30% RANO HGG / LGG response

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



- 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

RANO-HGG responses observed across age groups

Responses by age group:

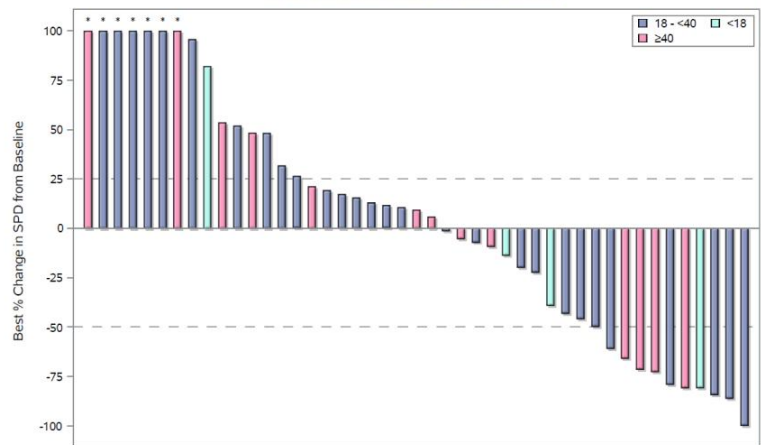
<18 years: 1/4 (25%)

18-40 years: 5/32 (16%)

≥40 years: 4/14 (29%)

RANO-HGG response of 8-year-old subject suggests activity in this population

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



* Change > 100%, SPD=sum of products of perpendicular diameters (target enhancing lesions per BICR)
Only patients with measurable target enhancing lesions at both baseline and post-baseline are included.

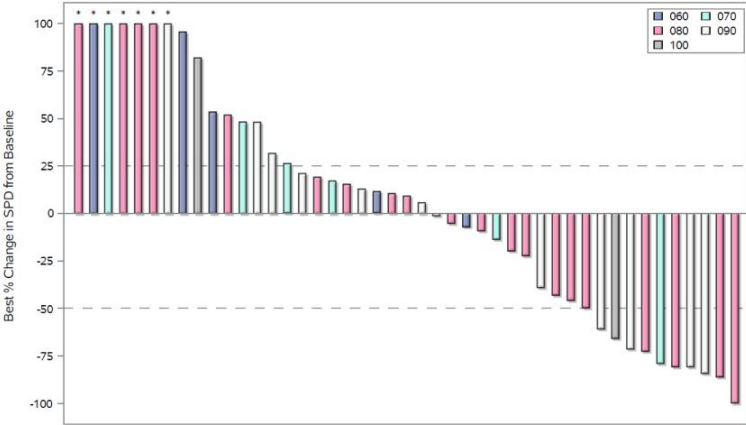
RANO HGG response correlation to performance status (PS) supports early-line trial

Predictably, patients with higher PS were more likely to respond to treatment

- 100: 1/2 (50%)
- 90: 4/14 (29%)
- 80: 4/20 (20%)
- 70: 1/7 (14%)
- 60: 0/7 (0%)

Supports hypothesis that treating earlier in disease course may enhance efficacy

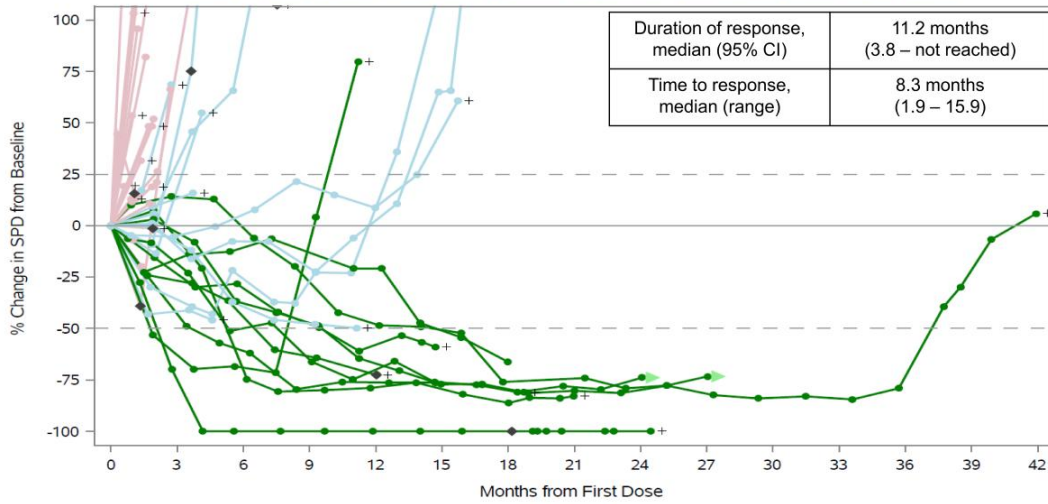
ONC201 Ph 2 Efficacy Analysis by BICR in Recurrent H3 K27M-mutant Diffuse Midline Glioma



* Change > 100%, SPD=sum of products of perpendicular diameters (target enhancing lesions per BICR). Only patients with measurable target enhancing lesions at both baseline and post-baseline are included.

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

Healthy Adult Dose Escalation Study¹ Incidence of ONC201-Related Adverse Events (AE)

	125 mg N=33	375 mg N=15	625 mg N=45
Any treatment-related AE	36.0%	20.0%	53.0%
Grade 1	36.0%	20.0%	53.0%
Grade 2	0	0	0
Grade 3-5	0	0	0

- In addition to healthy adult dose escalation study above, clinical pharmacology studies included: food-effect, safety pharmacology, special populations, and drug-drug interaction studies
- Treatment-related AEs were generally Grade 1 and transient across the clinical pharmacology program.
- The most commonly reported treatment-related events were mild dizziness, headache and nausea.

Treatment-related Adverse Events in ≥ 3% Glioma Patients

Treatment-related Adverse Events, Integrated Safety Data Set, (N=211 glioma patients) ²	Related TEAEs	
	All grades	Grade > 3
Any Treatment-related AE	55.5%	11.8%
Fatigue	21.8%	2.8%
Nausea	20.4%	0
Vomiting	14.2%	0.5%
Headache	8.5%	0.5%
Lymphocyte count decreased	6.6%	0.5%
Decreased appetite	5.7%	0
White blood cell count decreased	4.7%	0.5%
ALT increased	4.3%	0.5%
Hypophosphataemia	4.3%	0
Neutrophil count decreased	3.8%	0.5%
Anaemia	3.3%	0
Diarrhea	3.3%	0

RANO responses correspond with survival & clinical benefit

ONC201 Ph 2 Efficacy Analysis by BICR in Recurrent H3 K27M-mutant DMG

- No patients who experienced a RANO-HGG response had a reported death at 24 months²
- RANO response strongly associated with reduction in steroid use and improvement in performance status

	All patients	RANO HGG Responders	RANO HGG and/or LGG Responders
N	50	10	15
PFS at 12 months (number of patients censored)	30% ¹	90% (0)	67% (2)
OS at 24 months (number of patients censored) ²	35% ¹	80% (2)	53% (5)
Corticosteroids response ³ (number of patients evaluable)	47% (15)	100% (4)	100% (5)
Performance status response ⁴ (number of patients evaluable)	21% (34)	60% (5)	67% (9)



1. Kaplan-Meier median Progression-Free Survival or Overall Survival

2. Censored patients include those who are lost to follow-up or have withdrawn prior to the time point, as well as those who have not yet reached the time point. These patients are counted in the denominator but not counted as survivors (i.e., imputed as failure)

3. Corticosteroid response: ≥50% reduction in average daily corticosteroid dose compared to baseline with stable or improved KPS/LPS. Must be confirmed at next analysis timepoint. Corticosteroids converted into a dexamethasone equivalent dose. Baseline ≥4mg dexamethasone at baseline were evaluable.

4. Performance status response: increase in KPS/LPS compared to baseline with stable or reduced corticosteroid use. Must be confirmed at next analysis timepoint. Baseline KPS/LPS ≤80 were evaluable.

Strong rationale for phase 3 success relative to recent GBM trials

Experimental Agent	Ph2 Design	Biomarker	Response criteria	Confounded by anti-angiogenic pseudo response	ORR	Duration of response	6 month PFS	Approved?
ONC201– Ph2 rDMG	Single agent	H3 K27M	RANO BICR	No	20-30%	11.2	35%	To be determined
 Temodal temozolomide	Single agent	-	Levin	No	5%	?	21%	Yes (OS)
 AVASTIN bevacizumab	Various	-	Various	Yes	20-70%	4-6	18-50%	Yes (AA per ORR, PFS)
Cediranib	Single agent	-	MacDonald	Yes	27%	?	26%	No
Rindopepimut	Combo + Avastin	EGFRv3	RANO	Yes	30%	7.8	28%	No
Depatuxizumab mafodotin	Single agent	-	RANO	No	7%	6.7	29%	No
Enzastaurin	Combo + Avastin	-	RANO	Yes	22%	?	21%	No



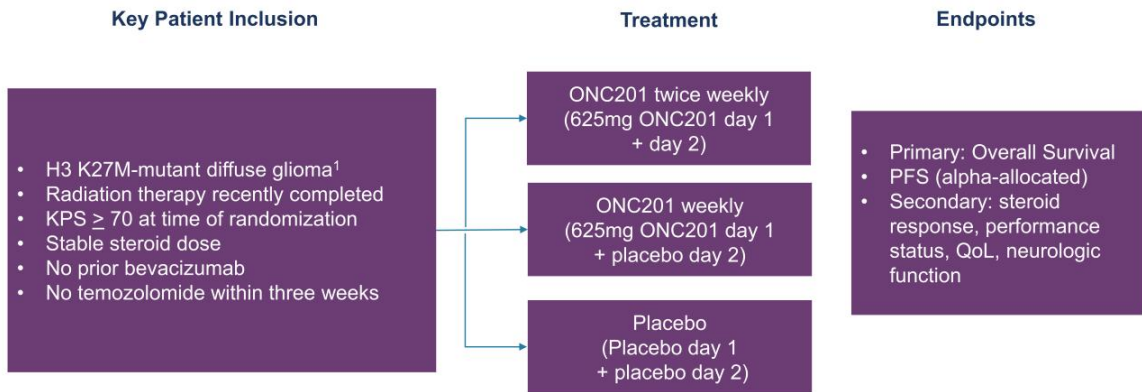
WKA Yung, et al, British Journal Cancer, Aug 8, 2000; Teri Kreisl, et al, Journal Clinical Oncology, 2009, Feb 10;27(5):740-5; Tracy Batchelor, et. al., Journal of Clinical Oncology, vol28, issue 17, Jun 10, 2010; David Reardon, et al, Clin Cancer Research Apr 2020; 26(7):1586-1594; Martin van den Bent, et al, Cancer Chemo & Pharma, 26 Oct 2017 80, 1209-1217; Yazmin Odia, et al, Journal Neuro-Oncology 127, 127-125 (2016)

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.



Multiple unique aspects to ONC201 data support translation to phase 3 success

Isolated, durable single agent activity

- Responses not confounded by combination treatments
- Responses were gradual, durable, and multi-focal
- Responses observed via most stringent criteria in blinded assessment

Consistency across multiple endpoints

- Responses highly associated with other forms of clinical benefit
- PFS and OS favorable to historical benchmarks
- Multiple separate analyses suggest longer survival of patients who received ONC201

Enhanced activity not required, but likely

- Earlier setting associated with higher response rate (performance status, tumor volume)
- Addition of higher-dose study arm
- Biomarker selection supports patient homogeneity

Design provides multiple paths for success

Interim data expected in early 2025 and final data in 2026

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

First OS⁽¹⁾ Interim

- ~164 events
- Success at HR⁽³⁾=0.52

PFS by RANO HGG⁽²⁾

- ~286 events
- Success at HR=0.68

Second OS Interim

- ~246 events
- Success at HR=0.64

Final OS

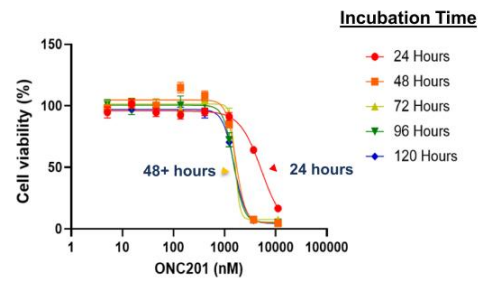
- ~327 events
- Success at HR=0.73

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



Potential to increase ONC201 efficacy with dose schedule

- Once per week ONC201 dosing effective as monotherapy in Phase 2 studies
- Twice per week dosing on two consecutive days expected to increase duration of therapeutic exposure
 - Increased exposure time can increase glioma sensitivity to ONC201 in vitro
 - Generally well tolerated in Phase 1 without dose limiting toxicity or AEs leading to dose modification
- Phase 3 ACTION study will evaluate once per week and twice per week dosing schedules at 625mg (or body weight equivalent)

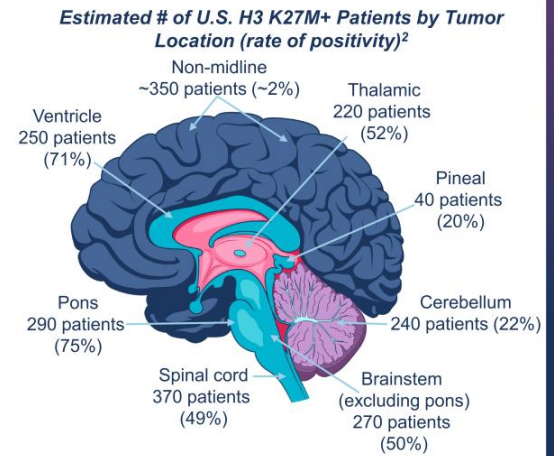


ONC201 Market Opportunity Assessment



Approximately 21,000 gliomas reported in the U.S. each year, affecting all locations in the brain¹

- **~40%** of 4,000+ **midline gliomas** are expected to harbor the H3 K27M mutation²
- **~2%** of 17,000+ **non-midline gliomas** are expected to harbor the H3 K27M mutation²
- 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



[1] Ostrom QT, 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 2012-2023; (Aihara K, et al. *Hum Pathol*. 2015;46(11):1626-32; Solomon DA, et al. *Brain Pathol*. 2016;26(5):569-82; Nayal S, et al. *Acta Neuropathol Commun*. 2016;4(1):193; Aboian MS, et al. *AJNR Am J Neuroradiol*. 2017;38(4):795-800; Wang L, et al. *Hum Pathol*. 2018;79:89-96; Castel D, et al. *Acta Neuropathol Commun*. 2018;6(1):117; Karrenmann M, et al. *Neuro Oncol*. 2018;20(1):123-131; Aboian MS, et al. *AJNR Am J Neuroradiol*. 2019;40(11):1804-1810; Dorfler C, et al. *Acta Neurochir (Wien)*. 2021;163(7):2025-2035; Sievers P, et al. *Neuro Oncol*. 2021;23(1):34-43; Mackay A, et al. *Cancer Cell*. 2017;32(4):520-537 e5; Huang T, et al. *Oncotarget*. 2018;9(98):37112-37124; Schreck KC, et al. *J Neurooncol*. 2019;143(1):87-93; Chiba K, et al. *World Neurosurg*. 2020;134:e530-e539; Mukasa A, et al. *Neuro Oncol*. 2014;16(Suppl 3):i99-i110; Castel D, et al. *Acta Neuropathol*. 2015;130(6):815-27; Khuang-Guang DA, et al. *Acta Neuropathol*. 2012;124(3):439-47; Roux A, et al. *Neuro Oncol*. 2020;22(8):1190-1202; Giagnacovo M, et al. *Childs Nerv Syst*. 2020;36(6):697-706; Wu G, et al. *Nat Genet*. 2016;48(5):444-450; Wu G, et al. *Nat Genet*. 2012;44(3):271-3; Taylor RB, et al. *Nat Genet*. 2014;46(5):457-461; Sarasin AM, et al. *Acta Neuropathol*. 2016;127(6):881-95; Eken C, et al. *Neuro Oncol*. 2022;24(1):141-152; Baskiewicz P, et al. *Acta Neuropathol*. 2016;128(4):573-81; Daoud EV, et al. *J Neuropathol Exp Neurol*. 2018;77(4):302-311; Chai RC, et al. *Acta Neuropathol Commun*. 2020;8(1):40; Yi S, et al. *Neurosurgery*. 2019;84(5):1072-1081; Gessi M, et al. *Acta Neuropathol*. 2015;130(3):435-7; Alvi MA, et al. *Mod Pathol*. 2019;32(9):1236-1243; Crotty EE, et al. *J Neurooncol*. 2020;148(3):607-617; Dono A, et al. *J Clin Neurosci*. 2020;82(Pt A):1-8; Akinturo DO, et al. *J Neurosurg Spine*. 2021;35(6):834-843; Nakata S, et al. *Brain Tumor Pathol*. 2017;34(3):113-119; Nomura M, et al. *Acta Neuropathol*. 2017;134(6):941-956; Eschbacher KL, et al. *Am J Surg Pathol*. 2021;45(8):1082-1096; D'Amico RS, et al. *J Neurooncol*. 2018;140(1):63-73; Konchunov A, et al. *Acta Neuropathol*. 2015;129(5):669-76; Abusaleh 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
- Ultra-orphan indication drug pricing
- H3 K27M mutations most often in children / young adults (little exposure to Medicare)
- 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)

Regulatory designations



US - Orphan Drug Designation (ODD) (treatment of glioblastoma and treatment of malignant glioma)
EU - ODD for treatment of glioma



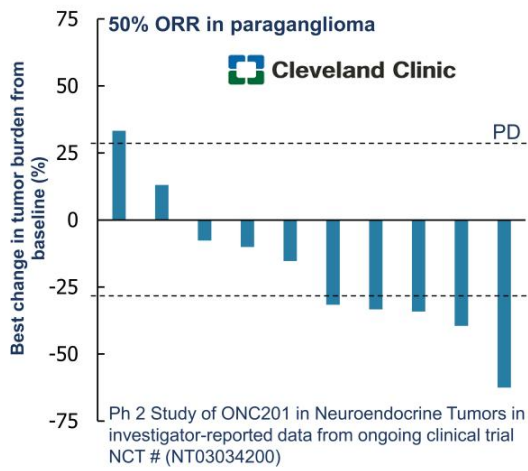
Fast Track Designation (FTD) for adult recurrent H3 K27M-mutant high-grade glioma



Rare Pediatric Disease Designation for treatment of H3 K27M mutant glioma
- Potential to receive rare pediatric voucher¹



ONC201 interim efficacy results in dopamine-secreting tumors outside the brain



- Single agent responses in Ph 2 neuroendocrine trial of ONC201 observed in subset (paraganglioma)
- Paraganglioma 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

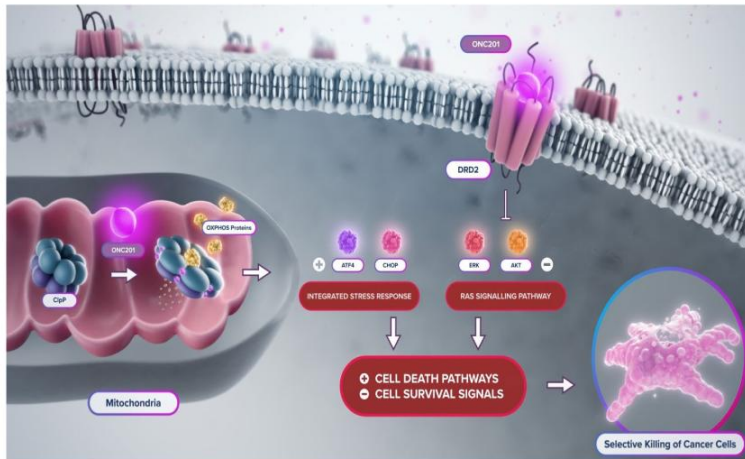


ONC201 Mechanism of Action



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

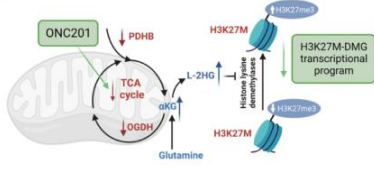
Cancer Discovery publishes front-line ONC201 survival data and elucidates H3 K27M mechanism of action

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

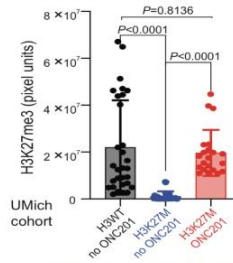


Provides ClpP connection to H3 K27M
Anchors MOA directly to targeting H3 K27M



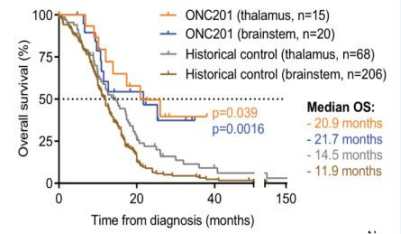
28

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



Increased confidence in Ph3 dose

Front-line ONC201 following RT survival benefit



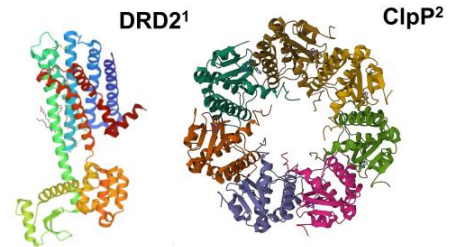
Extends documented benefit to front-line, pediatrics, and brainstem

ONC206

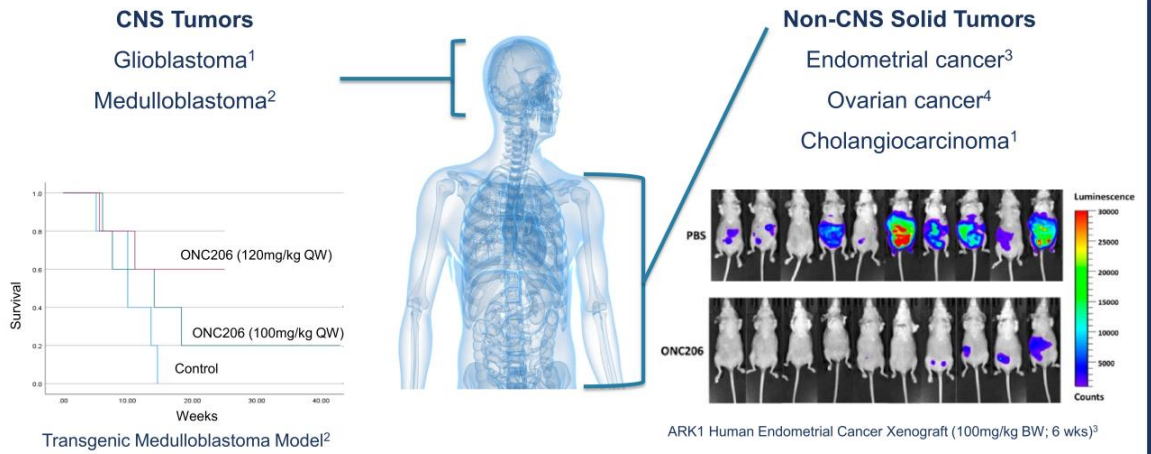


ONC206: oral brain penetrant DRD2 antagonist + ClpP agonist

- Second generation imipridone designed to expand to new indications
- Efficacy in cell culture, xenograft and transgenic central nervous system (CNS) and other tumor models
- Oral dose escalation trials ongoing in CNS cancers
- Monotherapy response reported by investigator in early dose escalation cohort for a patient in recurrent non-H3 K27M GBM
 - Dordaviprone responses amongst CNS tumors exclusively in H3K27M gliomas
 - Dose level 2 (100mg), once weekly dosing



ONC206 monotherapy active in models of CNS and other cancers



ONC206 dose escalation: pediatric and adult CNS tumors

- Monotherapy dose escalation trials enrolling in parallel for adult and pediatric CNS tumors
- Response reported by investigator from early cohort (100mg QW) without H3 K27M mutation
 - 18-year-old patient with recurrent temporal lobe glioblastoma
 - Regression on MRI & metabolic reduction via PET imaging, continuing on therapy over 15 months
- Once weekly dose escalation is expected to intensify to three consecutive days per week



National Institutes
of Health

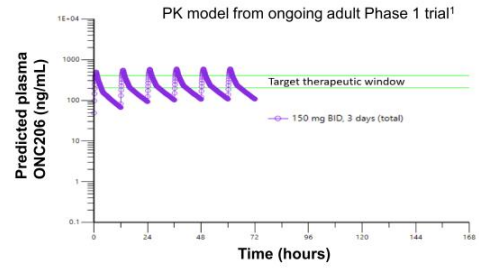
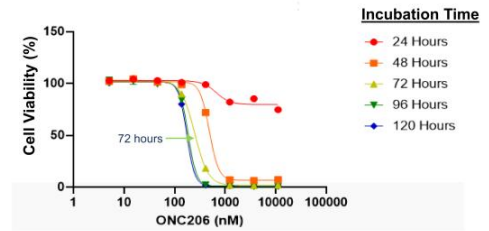


PACIFIC PEDIATRIC
NEURO-ONCOLOGY
CONSORTIUM

Dose intensification expected to enhance duration of therapeutic exposure

- Consecutive day dosing may increase therapeutic response
 - In vitro data demonstrates enhanced efficacy with 72 hour sustained exposure
 - Toxicology data enables safe escalation to more prolonged exposures
- Phase 1 trial data suggest a therapeutic and safe exposure possible with twice daily, three times weekly dosing

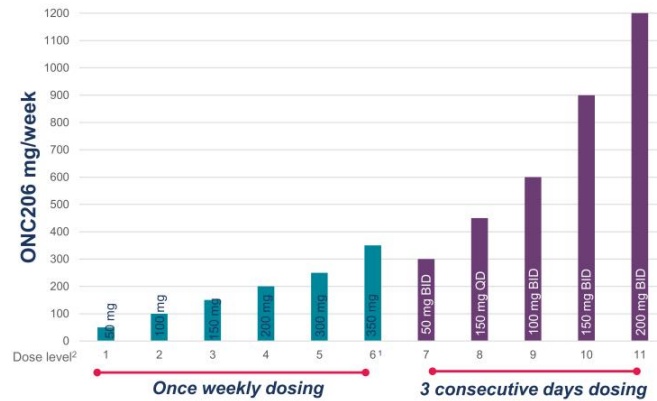
HGG in vitro response to ONC206 enhanced with exposure time



ONC206 dose escalation to more frequent dosing ongoing

Dose escalation on track for completion in 1H24

- No DLTs observed with weekly dosing
- 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 – dose escalation continuing



In vitro data indicates correlation between exposure time and tumor cell viability; more frequent dosing schedule designed to increase duration of target exposure



34

1. Dose level 6 was conducted in adults only
2. Pediatric dose scaled by body weight.

**~30,000 new cases of GBM annually in the top 7 markets;
>\$2Bn market opportunity**

- GBM is a rapidly progressive disease with low survival rates, few drug approvals last 25 years:
 - Temozolomide (TMZ) approved 1999
 - Bevacizumab approved 2009
- Existing therapies rarely offer durable effect
 - 3-year survival from diagnosis



- Chimerix retains global operational rights to ONC206²
- Worldwide market opportunity exceeds \$2Bn
 - TMZ revenue peaked at approximately \$1.4 billion in 2009, prior to going generic
 - o Inflation adjusted peak: > \$2.5Bn
 - New GBM therapy: 50% penetration at average price of contemporary oncology drug approvals exceeds \$2Bn

**Preclinical
Development**
ONC212 and CMX521

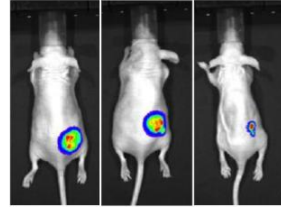


ONC212: GPR132 + ClpP Agonist

- Distinct molecular target (GPR132) and efficacy profile relative to ONC201/ONC206
- Efficacy in preclinical models of advanced cancers
- GLP-tox studies complete, potential to advance to IND
- Partnerships established for early-stage clinical trials with Brown University and MD Anderson Cancer Center
- Preclinical studies are ongoing to evaluate additional oncology indications and predictive biomarkers for ONC212 for clinical development

Pancreatic cancer model shows the potential of ONC212¹

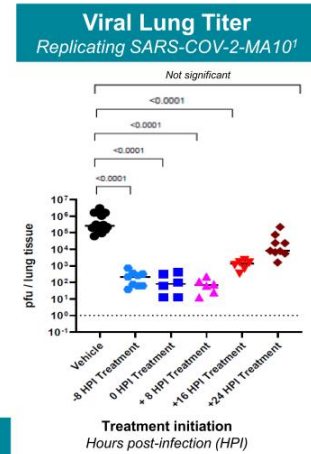
Vehicle ONC201 ONC212



CMX-521: anti-SARS-CoV-2 preclinical activity

- Ribonucleoside analog that is a viral polymerase inhibitor
 - Inhaled nebulized liquid aerosol formulation; minimal systemic exposure
- Monotherapy efficacy in mouse-adapted SARS-CoV-2-MA10 model across multiple endpoints
 - Lung viral titer
 - Viral RNA parallel viral lung titer (plaque forming unit)
 - Clinical scoring (animal health)
 - Lung pathology
 - Animal weight loss

\$2 million grant to fund prodrug formulations that could enable oral administration with improved lung delivery



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®
brincidofovir
10 mg/mL oral suspension | 100 mg tablets



Financial strength supports development through key catalysts



High probability of success
for Phase 3 ACTION study
of ONC201



Low barriers to
commercial potential
for ONC201



Corporate capability
and financial flexibility

\$217 million in capital to fund operations as of September 30, 2023, no debt

Fully funded Ph 3 program with multiple potential paths to approval

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

- ✓ Trial initiated November 2022
- ✓ Interim OS data expected early 2025, full OS data expected 2026

ONC206 in early dose escalation studies at NIH and PNOG

- ✓ Investigator reported response in Non-H3 K27M recurrent glioblastoma patient

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

Chimerix Corporate Presentation



