Chimerix 2Q21 Corporate Presentation

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Forward-Looking Statements

These slides contain 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, Chimerix's ability to develop and commercialize its drug candidates including ONC201, DSTAT and TEMBXA®; the sufficiency of the data from the current clinical trial of ONC201 to support accelerated regulatory approval; Chimerix's ability to submit and/or obtain regulatory approvals for its clinical candidates; the timing and receipt of a potential procurement contract for TEMBEXA in smallpox; and the anticipated benefits of Chimerix's acquisition of Oncoceutics. Among the factors and risks that could cause actual results to differ materially from those indicated in the forward-looking statements are risks that Chimerix's clinical candidates may not obtain regulatory approval from the FDA or such approval may be delayed or conditioned; risks that development activities related to clinical candidates may not be completed on time or at all; risks that ongoing or future trials may not be successful or replicate previous trial results, or may not be predictive of real-world results or of results in subsequent trials; risks and uncertainties relating to competitive products and technological changes that may limit demand for our drugs; risks that our drugs may be precluded from commercialization by the proprietary rights of third parties; risks that Chimerix will not obtain a procurement contract for TEMBEXA in smallpox in a timely manner or at all; risks that the anticipated benefits of the acquisition of Oncoceutics may not be realized 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.

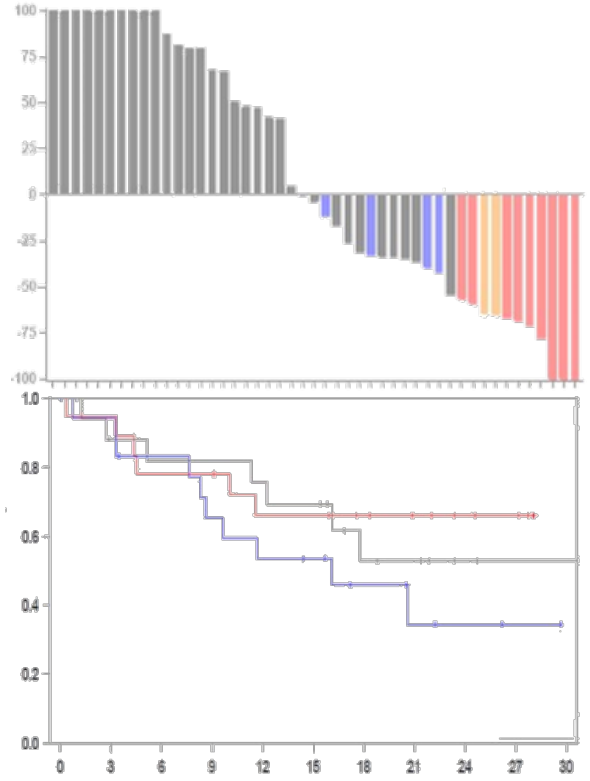
Potential TEMBEXA® stockpiling to fund oncology development

Source of non-dilutive capital directed toward innovative oncology development

TEMBEXA approved June 4,2021 for the treatment of smallpox

Potential $80-$100m annual non-dilutive capital with potential sales to governments for national preparedness for treatment of smallpox

Focus on oncology areas of high unmet need supported by strong clinical data



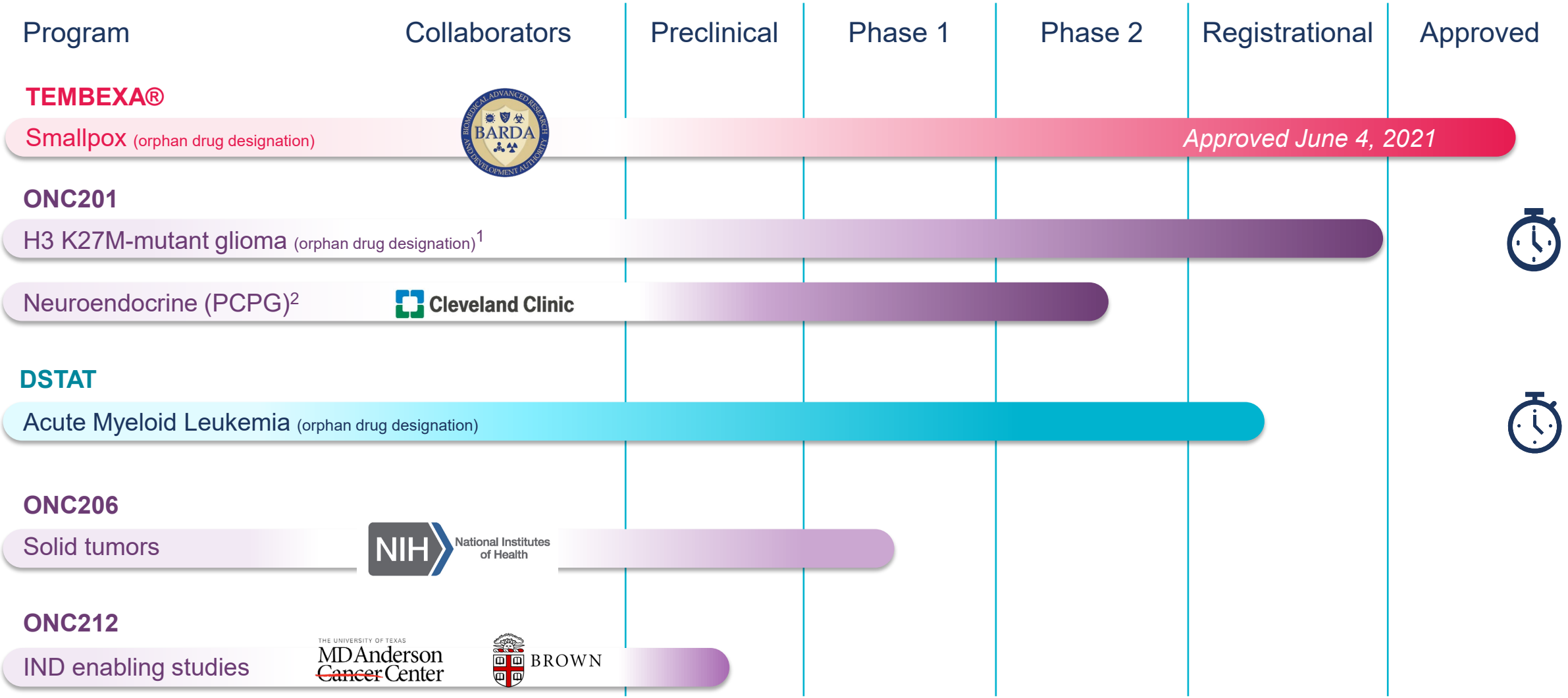
ONC201/ONC206/ONC212

- Glioma registration opportunity
- New indication & pipeline expansion

DSTAT

- Phase 3 front-line AML trial

Deep pipeline across all development stages



1 Recurrent diffuse midline glioma H3 K27M mutant positive
2 Pheochromocytoma/paraganglioma

Denotes US FDA Fast Track Designation

TEMBEXA®
Approved for Treatment of Smallpox as a Medical Countermeasure

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The value of preparedness has never been more evident

- Highly infectious virus with ~30% mortality[1]
- Population is unvaccinated since early ‘70s
- Considered a Class A security threat by PHEMCE[2], CDC and NIAID
- Weaponized virus could be engineered to increase transmission and resistance
- BARDA mandate to stockpile countermeasures with alternative mechanism of action
- SIGA Technologies awarded >$1B in contracts for development and stockpile of TPOXX
- TEMBEXA® approved June 4,2021 for the treatment of smallpox


The Siberian Times

'Since 1902 there was a daily 'butter' train, leaving Novosibirsk to Riga, Latvia, with 25 carriages, each loaded with 1 000 kg of butter'

The chronicles of Novosibirsk

Home News Features Business City Focus Sport Culture Science Health & Lifestyle Ecology Weird & Wonderful Case study Opinion Profile

Experts warn of threat of born-again smallpox from old Siberian graveyards

By The Siberian Times reporter

12 August 2016

This summer's melting of permafrost is more than THREE TIMES greater than usual, unlocking long-frozen deadly diseases.

Yamal and the anthrax outbreak now underway - the first for 75 years - should act as a warning. Picture: EMERCOM


Two labs in the world keep a live smallpox sample. The one in Russia just had an explosion

N'dea Yancey-Bragg USA TODAY

Published 12:46 p.m. ET Sep. 17, 2019

CDC

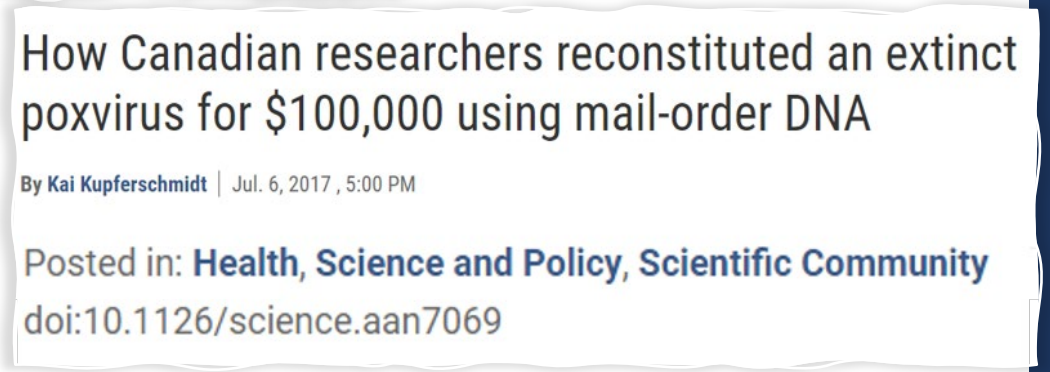
Vector


CNN Health » Diet + Fitness | Living Well | Parenting + Family Live TV U.S. Edition

CDC: Smallpox found in NIH storage room is alive

By Jen Christensen, CNN

Updated 3:07 PM ET, Fri July 11, 2014


How Canadian researchers reconstituted an extinct poxvirus for $100,000 using mail-order DNA

By Kai Kupferschmidt | Jul. 6, 2017 , 5:00 PM

Posted in: Health, Science and Policy, Scientific Community

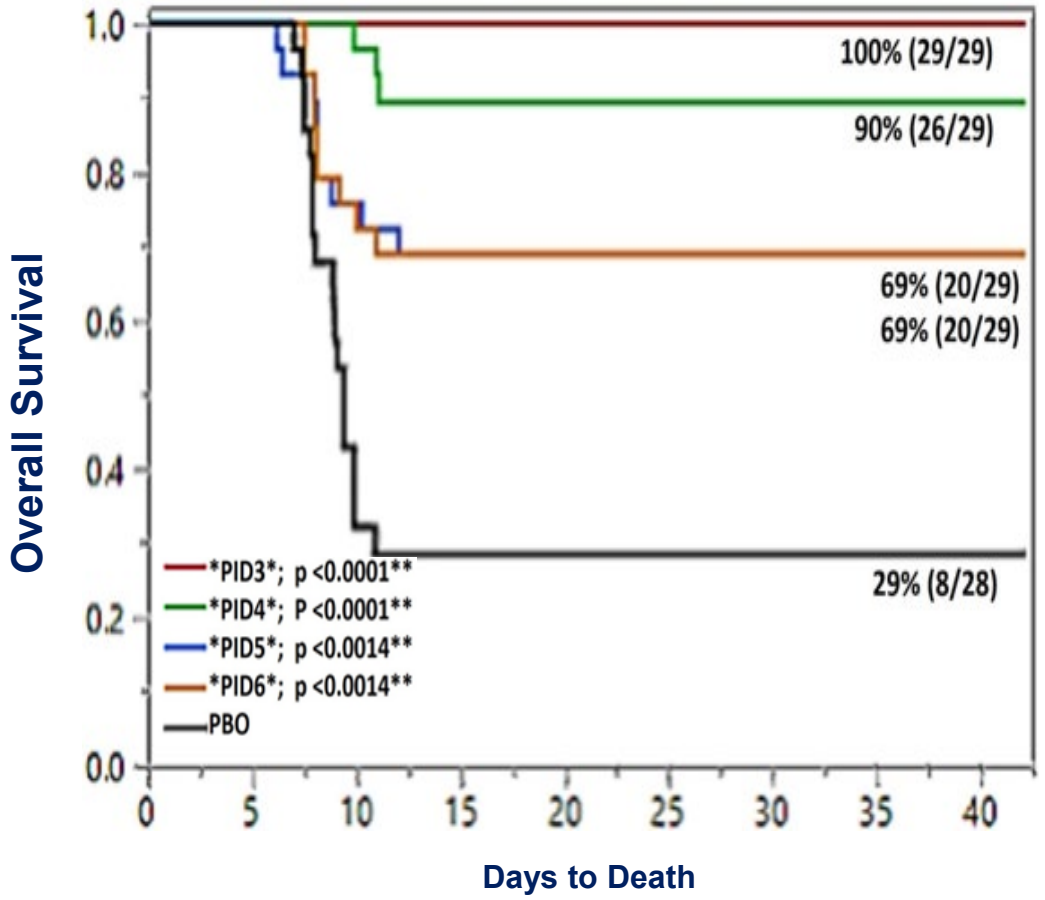
doi:10.1126/science.aan7069

1. World Health Organization, estimate for the more common variola major form of smallpox (vs variola minor of 1%), January 13, 2014
2. Public Health Emergency Medical Counter Measures Enterprise

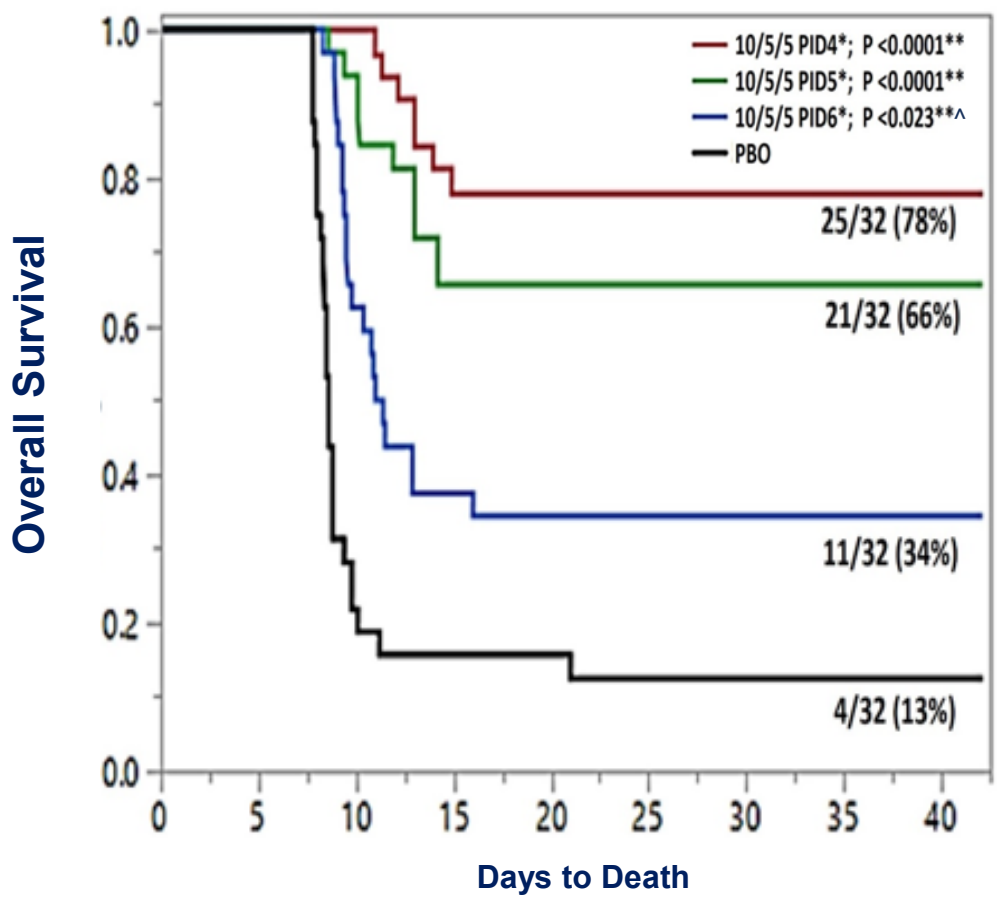
TEMBEXA® significantly reduced mortality in required models

Survival improved even with administration of TEMBEXA well beyond midpoint of disease progression

Rabbit Model



Mouse Model



* PID = Post Inoculation Day
** Versus Placebo (PBO); Boschloo one-sided
^ Day 6 was not determined to be statistically significant in mouse

TEMBEXA® positioned as an attractive addition to SNS

- Approved by the FDA in tablet and oral suspension formulations for the treatment of smallpox disease in adult and pediatric patients, including neonates/infants
- TEMBEXA impairs viral replication with a different mechanism of action than TPOXX®, important hurdle to an engineered bioterror attack
- Short-course therapy, oral tablet and suspension (two tablets once weekly for 2 doses oral suspension once weekly for 2 doses)
- Complementary with existing countermeasures and vaccines
- TEMBEXA has a higher barrier to resistance compared to TPOXX
- TEMBEXA and TPOXX work well in combination in animal studies
- Initial quantities available for delivery to the SNS in 2H2021

Rationale for significant revenue opportunity

- 2 SIGA smallpox contracts each for 1.7m doses
- Most recent price ($310 in 2018) implies $527m contract for CMRX (for product alone)

SIGA and other BARDA Contract Benchmarks

TEMBEXA® Pandemic Utility

- Full supply required for resistant strain outbreak
- Combination strategy likely most effective
- Dosing regimen for all ages, including infants

- 2015 RFP for 2nd smallpox drug
- Request included 1.7m doses (already 2nd MOA at time)

Prior CMRX RFP Benchmark

2022 Presidential Budget Proposal

- Specifically named TEMBEXA® and TPOXX®
- Included 300,000 dose purchase for smallpox
- $100m proposed budget allocation

MA

Acquisition of Oncoceutics Adds Targeted Oncology Pipeline with Near-term Registration Potential

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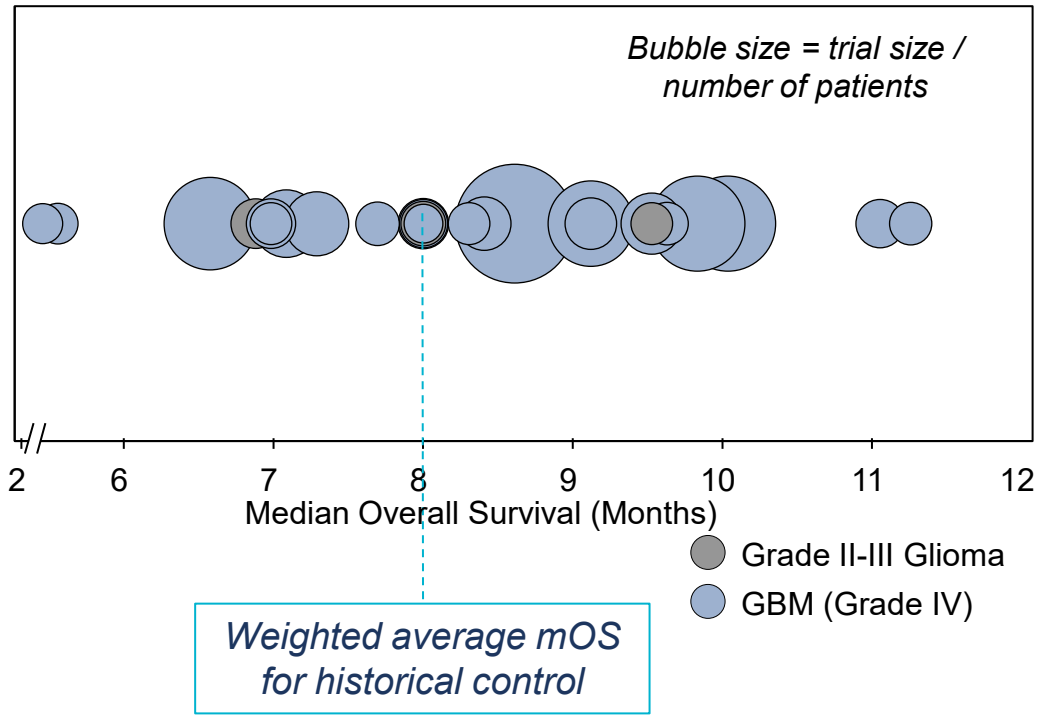
ONC201 provides attractive near-term opportunity

- Unprecedented single agent activity in recurrent H3 K27M-mutant glioma
- Pivotal 50 subject registrational data anticipated in 4Q2021, comprised of 50 subjects pooled across multiple-sponsored clinical studies and expanded access
- Attractive commercial market potential
  - >$500M global peak sales opportunity in first indication
  - Extraordinary awareness of ONC201 among KOLs
  - Mutation already identified through standard diagnostics
- Compelling single agent response in second indication
- Attractive safety to date, easy administration
- IP portfolio into mid to late 2030s
- Path ahead leverages organizational strengths

Recurrent H3 K27M+ recurrent glioma, a devastating disease where single agent responses are rare and lack durability

- Most frequent histone mutation in glioma
  - Frequent (>50%) in younger patients with midline brain tumors
  - Classified as grade IV by WHO, regardless of diffuse glioma histology
  - Mutation routinely identified via immunohistochemistry (IHC) or next generation sequencing (NGS), e.g. Foundation One
- FDA acknowledge available therapy is palliative
  - Often not possible to resect
  - Recurrence inevitable after first-line radiation
  - Invariably lethal; ~8 months median overall survival
  - Chemotherapy ineffective; objective responses by RANO-HGG[1] rarely observed

Median overall survival weighted average:
~8 months in recurrent glioma[2] post TMZ



1 Response Assessment in Neuro-Oncology-High Grade Glioma
2 Data collected from 17 literature sources since 2010 with trial arms size >30 pts each reporting data on 1937 pts with recurrent, unstratified disease. 13 trials were in post-TMZ patients and four trials with 282 pts did not explicitly declare prior TMZ, rather “radiotherapy + chemo”

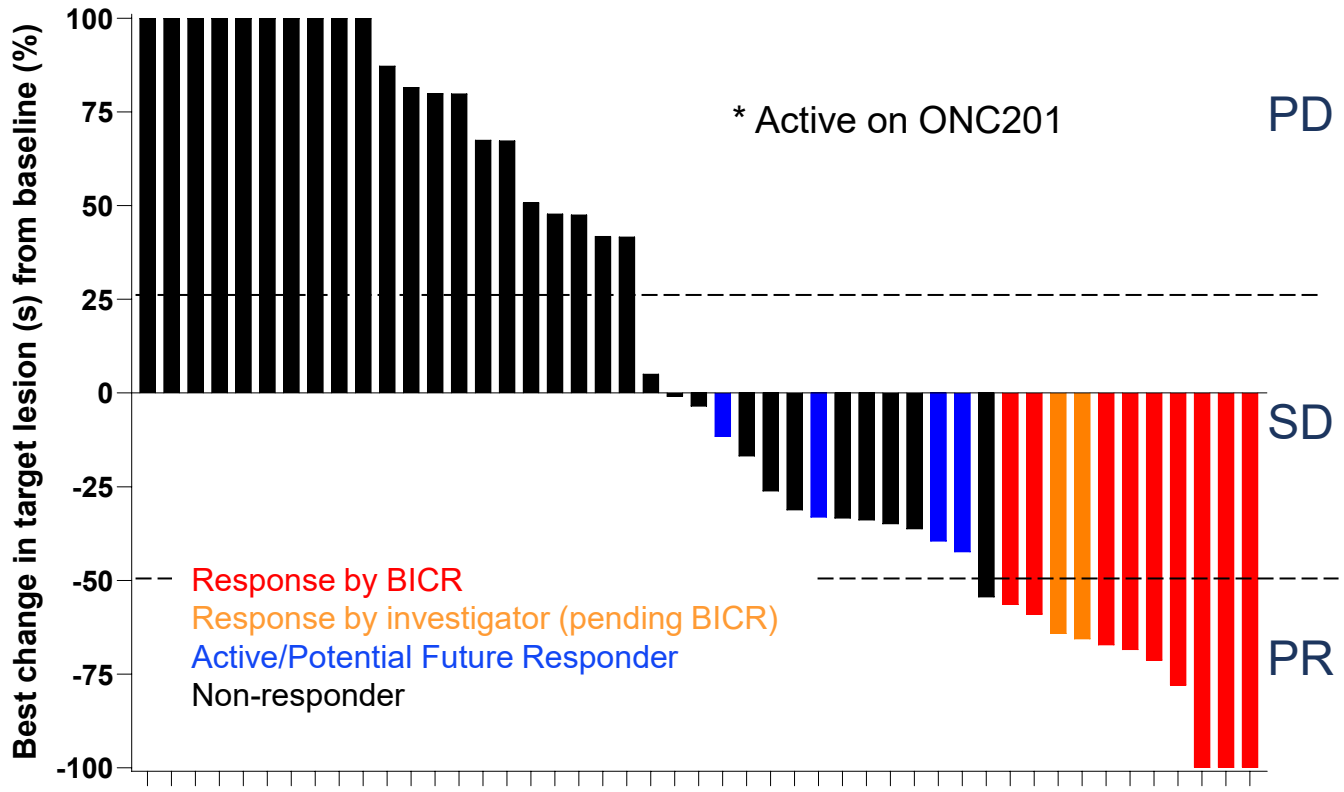
H3 K27M-mutant glioma: market dynamics and opportunity

- U.S. annual incidence of ~2,000
- Market research
  - Nearly all mid-line glioma patients tested for H3 K27M-mutation; rate to increase with targeted therapy
  - ~20% ORR and/or clinically relevant durability deemed clinically meaningful
  - ONC201 use expected in >80% of H3 K27M-mutant glioma patients based on current profile
  - Interest in combination with radiation if possible, in the front-line setting
- Competitive landscape: chemotherapy and bevacizumab ineffective; targeted agents, vaccines and CAR-T therapies are in early development with limited efficacy analysis available
- Low barriers to adoption
  - No effective treatment options available
  - K27M already on commercial and site-specific NGS panels, oral dosing (QW), good safety profile
  - High unaided awareness of ONC201 among neuro-oncologists
  - Longer-term, potential combinable with other glioma therapies

Compelling ONC201 responses in recurrent H3 K27M mutant disease drives strong KOL engagement

- 30% ORR by BICR in first 30 patients
- Maturing data from the next 20 patients so far demonstrated:
  - 2 additional responders by investigator assessment
  - 4 additional patients remain on therapy >6 months
- ORR from full cohort supported by
  - Clinically relevant durability
  - Clinically relevant disease control in non-responders
  - Other clinical benefits (e.g., reduction in steroid use, improved performance status)
  - Complete responses
  - Objective responses in CNS tumors exclusive to H3 K27M mutations

Assessed using RANO-HGG; T1 Contrast Enhancement



Data cutoff for ONC006 study is November 17,2020, others is December 4, 2020

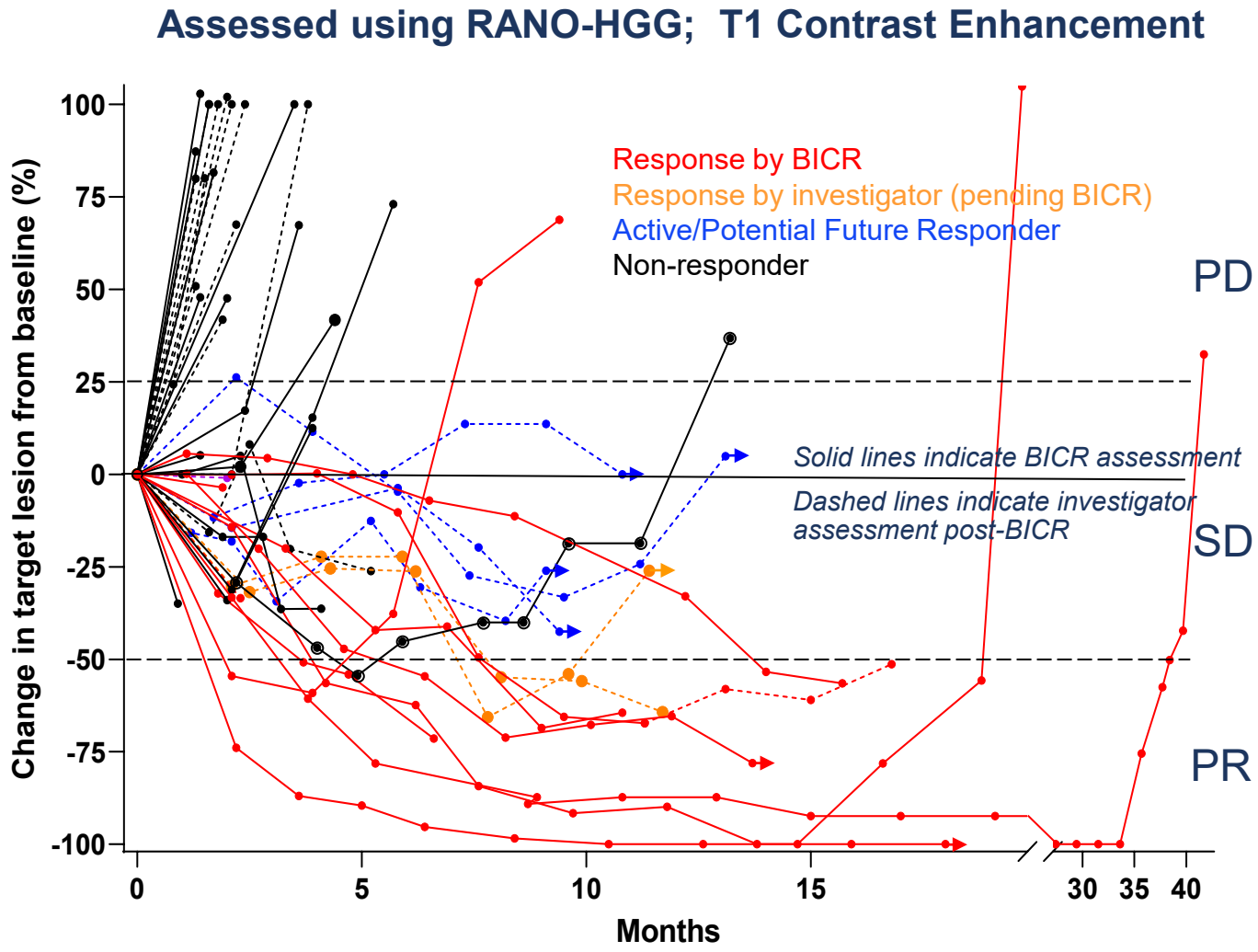
Waterfall plot reflects 47 subjects; 3 subjects do not have on-treatment tumor assessments available but were PD
Some eligibility and response data is based on unlocked CRFs that are subject to change with additional monitoring

Meaningful durability of response

Interim Response Summary*

- Subject to change with maturing data
- 11 responses so far by RANO HGG
  - 9 responses by BICR
  - 2 investigator assessed
  - 4 patients could still achieve response
- Meaningful duration of response
  - mPFS among responders: > 15 months

* All responses planned to be reconfirmed by a three-party adjudicated blinded independent central review in 2021



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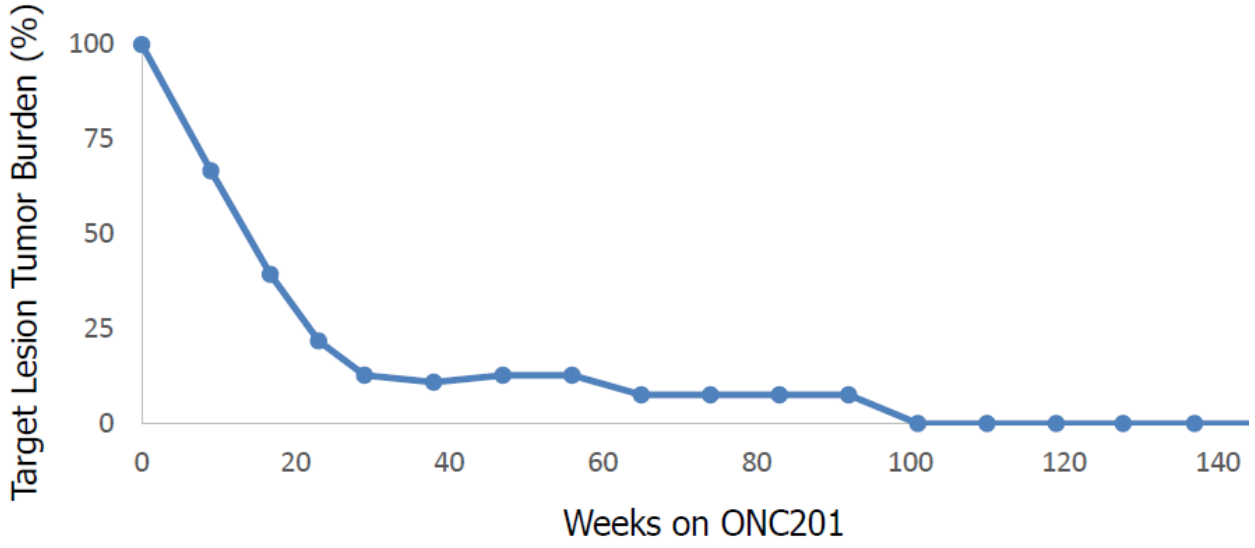
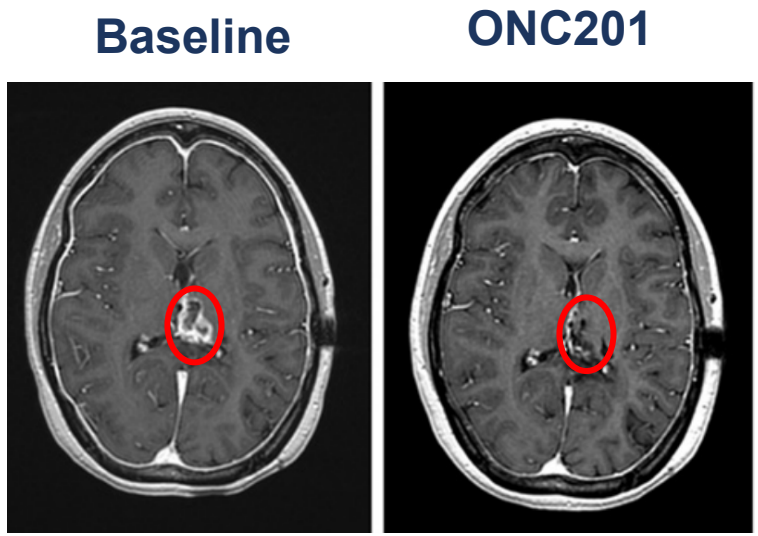
ONC201 patient: near complete tumor regression

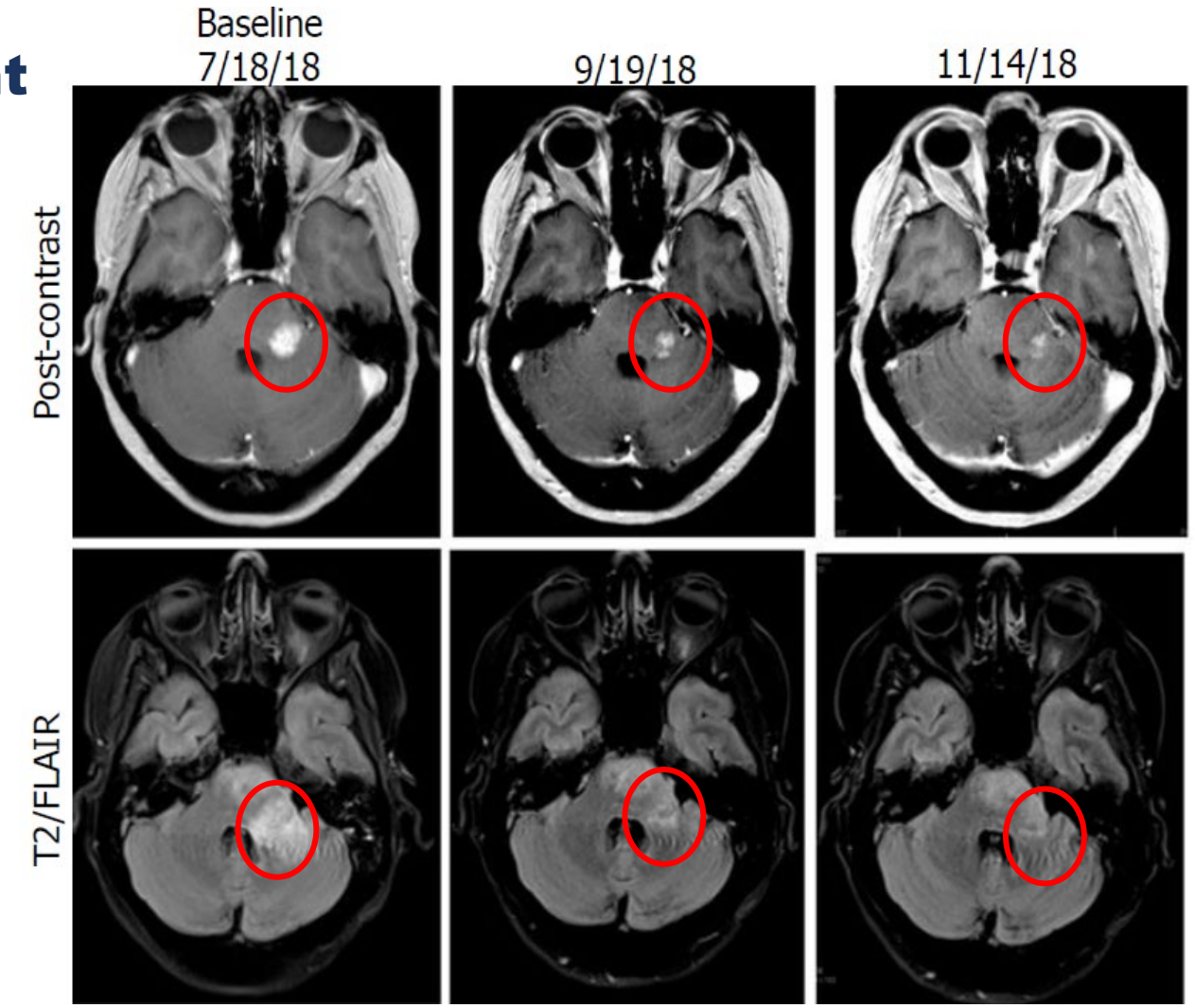
- 22-year-old with recurrent H3 K27M mutant glioma
- Started single agent ONC201 treatment after recurrence of tumor in March 2016
- Experienced deep and durable complete regression in the primary lesion





ONC201 partial responses have driven clinical benefit in recurrent H3 K27M-mutant glioma

- 55-year-old received single agent ONC201 at recurrence following radiation therapy (RT) and temozolomide (TMZ)
- Objective partial response was associated with normalization of neurological deficits by NANO[1] within two cycles
  - Improved gait
  - Improved facial strength
  - Improved language
- Radiographic response and neurologic response >7 months



1. Neurological Assessment in Neuro Oncology

ONC201 demonstrated attractive safety profile, oral administration

Treatment-emergent and related AEs[1] occurring in >5% of ONC201-treated recurrent H3 K27M-mutant glioma patients (all 52 subjects enrolled in study ONC013)

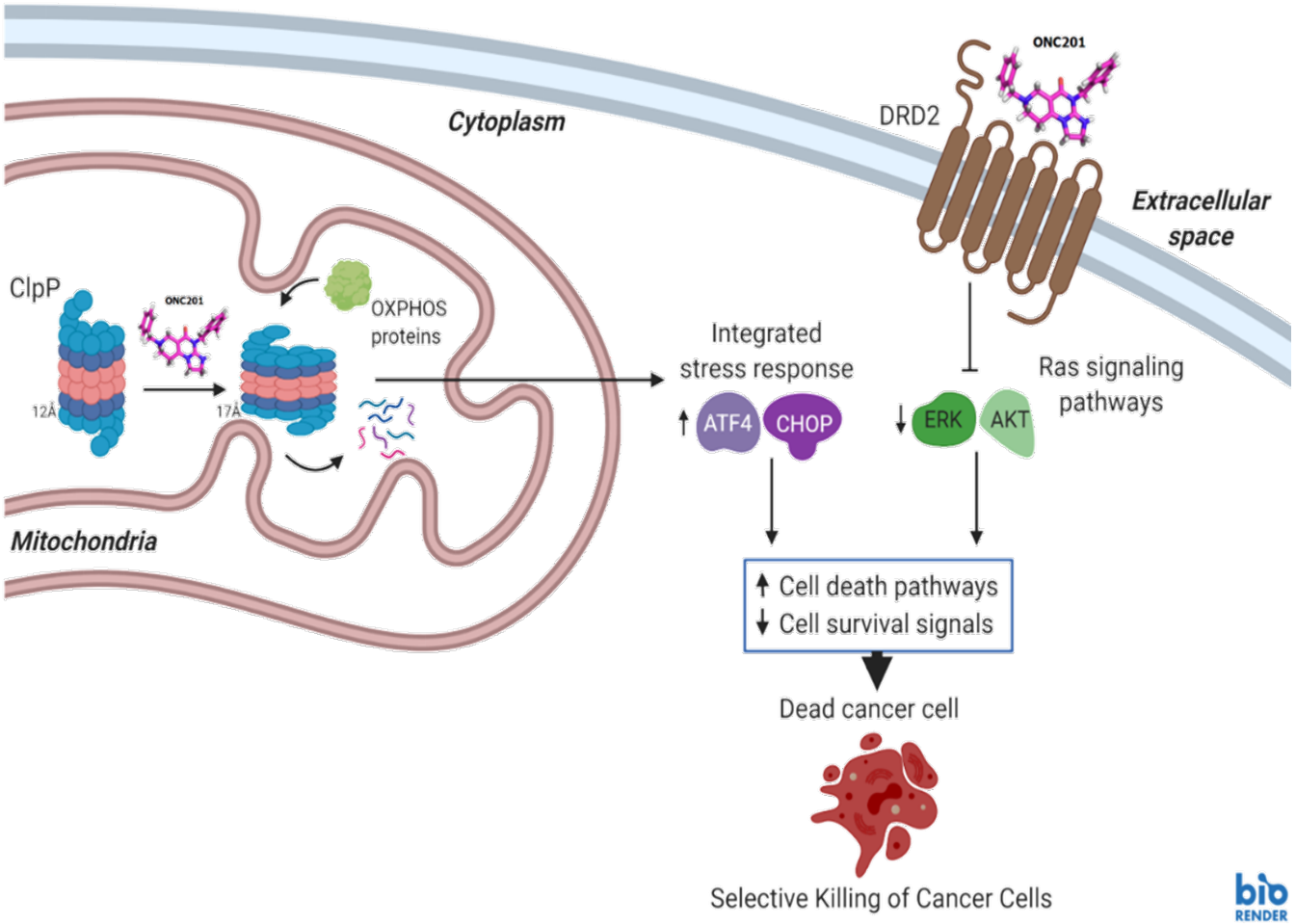
Study ONC 013: Adverse Reactions (N=52)	All Grades n(%)	Grade 3-4 n(%)
General disorders and administration site conditions	11 (21.2)	3 (5.8)
Fatigue	10 (19.2)	3 (5.8)
Investigations	10 (19.2)	1 (1.9)
Lymphocyte count decreased	5 (9.6)	-
Nervous system disorders	8 (15.4)	-
Headache	3 (5.8)	-
Gastrointestinal disorders	7 (13.5)	-
Nausea	7 (13.5)	-
Vomiting	3 (5.8)	-
Metabolism and nutrition disorders	6 (11.5)	-
Decreased appetite	4 (7.7)	-
Skin and subcutaneous tissue disorders	4 (7.7)	3 (5.8)
Rash maculo-papular	4 (7.7)	3 (5.8)

- Integrated safety database for NDA will consist of >350 glioma patients
- Dose-limiting toxicities have not been observed with weekly dosing in any indication
- Study allows single weekly dosing until progression
- Safety results and oral dosing potentially enable:
  - Fixed dosing in adults
  - High rate of compliance
  - Evaluation in multiple therapeutic settings
  - Evaluation of combination therapies

1. A treatment-emergent AE (TEAE) is defined as a newly occurring or worsening AE after the first dose of study treatment and through 30 days after the last dose of study treatment. TEAEs that are definitely related, probably related, possibly related or missing relationship to the study drug are considered as study drug related treatment-emergent adverse events. Adverse events were coded using the MedDRA Dictionary, Version 22.0. Date Cutoff: 31AUG2020

ONC201 targets DRD2 and ClpP

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

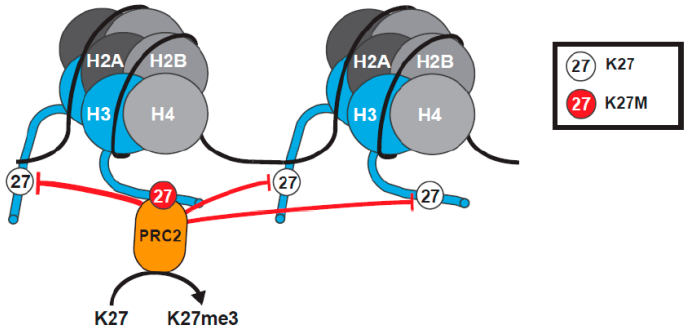


- ONC201 can selectively induce apoptosis in cancer cells by altering activity of two proteins
- DRD2 antagonism
  - DRD2 is a G protein-coupled neuroreceptor that regulates Ras signaling
  - ONC201 antagonizes DRD2, inhibiting Ras signaling pathways
- ClpP agonism
  - ClpP normally degrades misfolded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

ClpP=caseinolytic protease P; DRD2=Dopamine receptor D2; ATF4=activating transcription factor 4; CHOP=C/EBP-homologous protein; ERK=extracellular-regulated kinase; AKT=protein kinase B

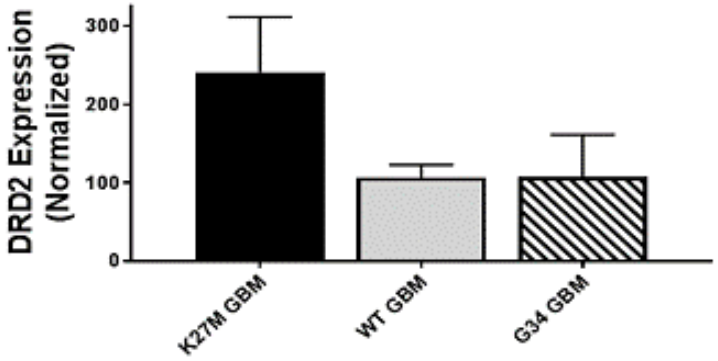
H3 K27M-mutant gliomas exhibit enhanced sensitivity to ONC201

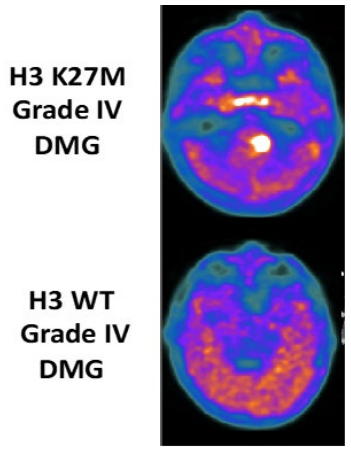
Lysine to methionine ("K-to-M") histone H3 mutation reduces H3 K27 methylation



K27M-mutants bind PRC2 which normally methylates H3 K27 via EZH1/2; binding/tethering PRC2 prevents methylation of even nonmutant H3 K27

H3 K27M elevates DRD2 expression

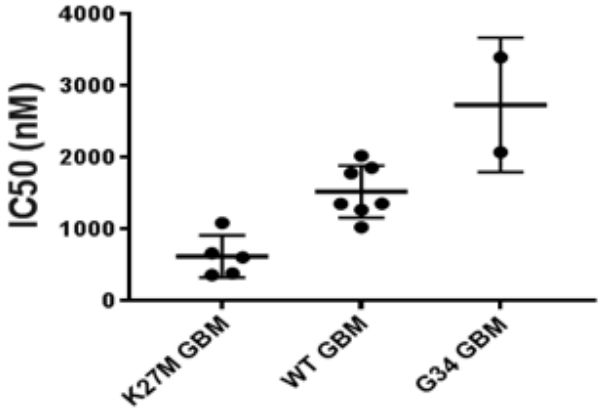




18F-DOPA PET

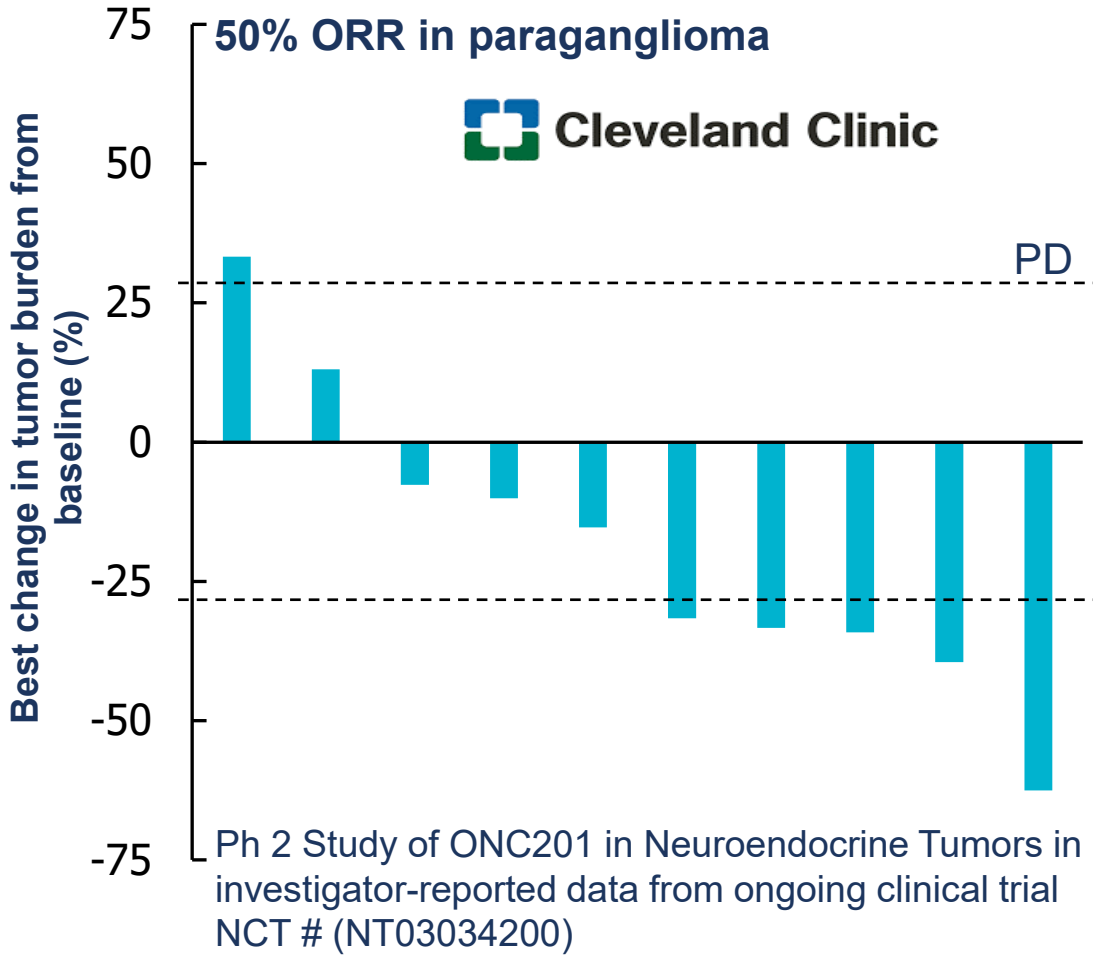
Midline tumors occur in dopamine-rich regions of the brain

High sensitivity to ONC201



Lowe et al., Cancers, 2019; Chi et al., Society of Neuro-Oncology, 2017; Kawakibi et al, Society of Neuro-Oncology, 2019; Koschmann et al., Pediatric Society of Neuro-Oncology 2019; Prabhu et al, Clinical Cancer Research, 2018; Ishizawa et al, Cancer Cell, 2019; Prabhu et al., Society of Neuro-Oncology, 2019, Piccardo et al., Eur J. Nucl Med Mol Imaging, 2019

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

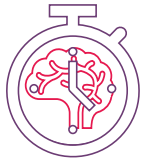


- Single agent responses in Ph 2 neuroendocrine trial of ONC201 observed in subset (paraganglioma)
- Paraganglioma are adrenal-related tumors with elevated DRD2 expression
- Five patients have been treated > 1 year
- Less short-term and potential long term toxicities than other paraganglioma therapies
- Objective responses in patients with tumor genetic driver alterations in metabolic enzymes (SDHA, SDHB, SDHD) and diverse prior therapy

1. Rare neuroendocrine tumors
2. ASCO oral presentation June 2021

ONC201 FDA designations

Orphan Drug Designation (ODD) (treatment of glioblastoma and treatment of malignant 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 voucher[1]

1. Subject to continuation of Rare Pediatric Disease Voucher Program and proceeds from voucher will be split 50/50 with legacy Oncoceutics shareholders

Promising pipeline in development

ONC206:

- Differentiated DRD2 antagonist + ClpP agonist
- Phase 1 for recurrent CNS tumors

ONC212:

- GPR132 agonist + ClpP agonist
- IND-enabling studies

Dociparstat Sodium (DSTAT) for First-line Treatment in AML

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More than 21,000 new cases of AML annually in the U.S.

- Rapidly progressive disease with low survival rates
- Existing therapies are seldom cures
  - 1-year survival for older patients

5 out of 10

  - 5-year survival for older patients

1 out of 10

  - Relapse can occur if not all AML blasts and stem cells are eradicated
- AML is heterogenous and has multiple mechanisms of resistance to treatment

Walter RB, Othus M, Burnett AK, et al. Resistance prediction in AML: analysis of 4601 patients from MRC/NCRI, HOVON/SAKK, SWOG and MD Anderson Cancer Center. Leukemia. 2015;29(2):312-320. doi: 10.1038/leu.2014.242

Compelling pilot study results in treatment-naïve AML patients

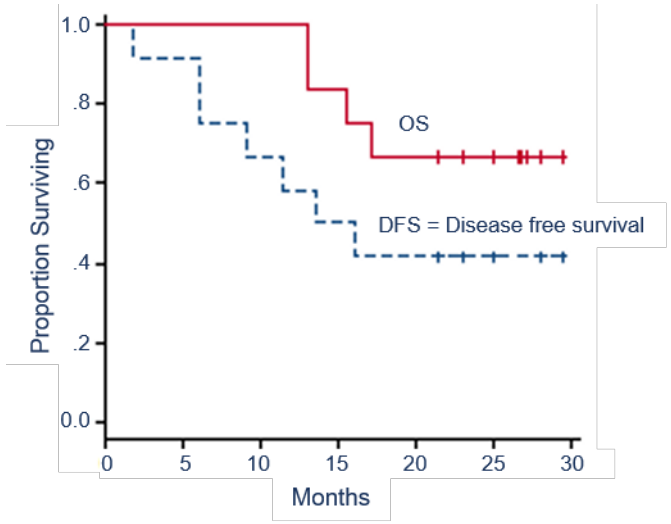
Strong Complete Response, Overall Survival and improved hematologic recovery

Complete Response

- **11 of 11 (100%)** patients with treatment-naïve primary AML achieved a CR with single induction cycle of 7+3 chemotherapy plus DSTAT; none reported serious adverse events related to DSTAT
- 12th patient enrolled with granulocytic sarcoma secondary to chronic myelomonocytic leukemia achieved a CR with second induction cycle without DSTAT
- All 5 baseline FLT3+ patients achieved CR with single induction cycle

Survival Rates

- Median survival not yet reached after 29.4 months
- Median disease-free survival of 14.8 months
- 4 patients remained in remission



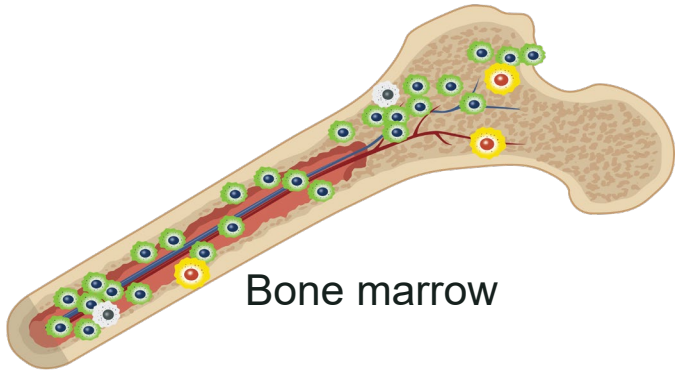
Count Recovery

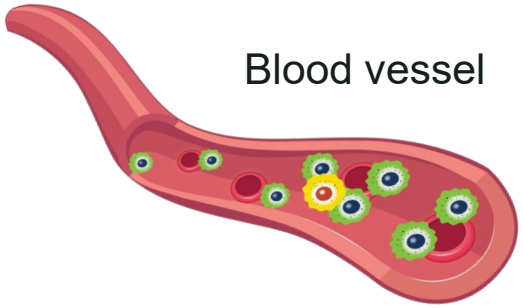
- Median time to recovery of an untransfused platelet count of a least 50 x 10^9/L of 23.5 days
- Median time to ANC recovery of at least 0.5 x 10^9/L of 22 days

Tibor J. Kovacsovics, Alice Mims, Mohamed E. Salama, et al. Combination of the low anticoagulant heparin CX-01 with chemotherapy for the treatment of acute myeloid leukemia. Blood Advances. 16 October 2017; accepted 21 January 2018. DOI 10.1182

DSTAT may improve duration of response & overall survival

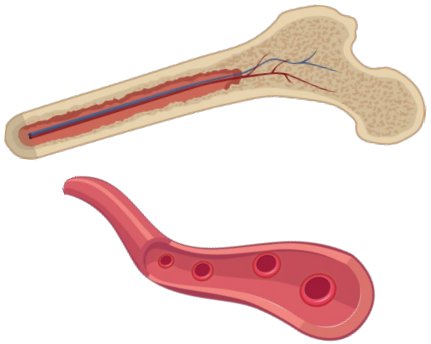
DSTAT targets proteins involved in resistance pathways and LSC/blast quiescence, including HMGB1, PF4, CXCR4 / CXCL12, neutrophil elastase and selectins





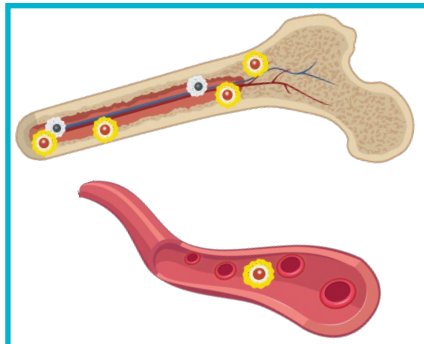
- AML blast sensitive to 7+3
- AML blast resistant to 7+3
- Leukemic stem cell (LSC) resistant to 7+3
- Red blood cells

'7+3' Chemotherapy + DSTAT



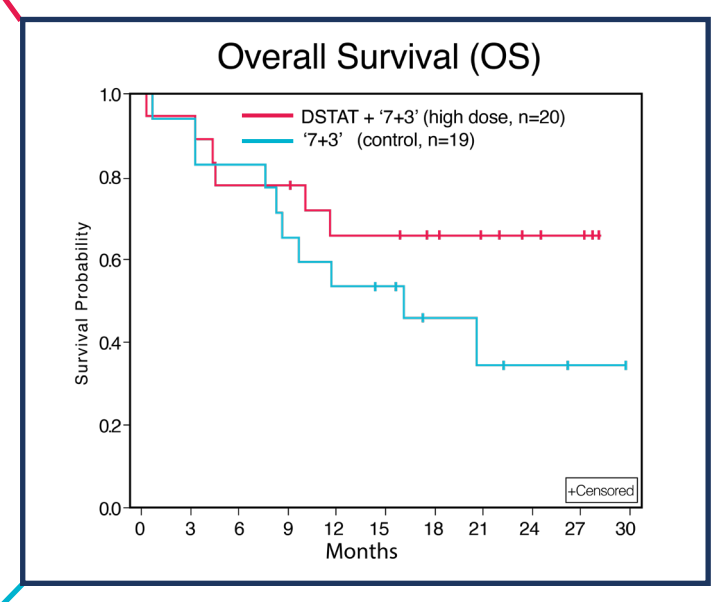
1) Inhibit AML survival and chemoresistance pathways
2) Reverse quiescence of AML blasts and LSCs

'7+3' Chemotherapy



1) Residual AML blasts cause relapse
2) Low abundance LSCs cause relapse

DSTAT appears to reduce AML relapse



Relapse driven by resistant blasts & LSCs

Randomized Phase 2B AML study in U.S. cancer centers

Design[1,2]

Subjects	• Treatment-naïve AML patients • Age 60+ • N = 75
Treatment Arms	• Cytarabine + idarubicin (control) • Cytarabine + idarubicin + low dose DSTAT (4 mg/kg IV bolus followed by 0.125 mg/kg/hr for 7 days) • Cytarabine + idarubicin + higher dose DSTAT (4 mg/kg IV bolus followed by 0.25 mg/kg/hr for 7 days)
Subset Matching Phase 3 Population	• Targets 39 of 50 patients from high dose and control arms - Excludes patients with favorable genetic risk profile who have lower unmet need (n=5) - Excludes patients with secondary AML (sAML) who will likely receive Vyxeos for induction (n=6)

4th arm in this study (4 mg/kg bolus followed by 0.325 mg/kg/hr infusion plus 7+3) discontinued after two patients were enrolled (one patient had hemorrhage deemed possibly related to DSTAT)
Low dose was deemed sub-therapeutic and the following data presented is limited to the high dose arm and the control arm

DSTAT potentially amplifies efficacy without significant toxicity

Generally well tolerated in newly diagnosed AML patients

- Most common serious adverse event in DSTAT arms was febrile neutropenia
  - 3 on high DSTAT arm, 1 on control arm
  - No difference in infection SOC SAEs (3 each)
- Four gastrointestinal SAEs on DSTAT arm none deemed related to DSTAT (colitis, ileus/gastric ulcer, small bowel obstruction, vomiting – single events and did not increase rate of mucositis)
- One SAE of lower gastrointestinal hemorrhage was reported in the control group
- Asymptomatic, transient elevation of hepatic transaminases observed in both arms
  - Well-described and non-adverse effect of cytarabine therapy
- aPTT remained in the normal range for most patients in DSTAT and control arms
- Comparable incidence of Gr>3 hemorrhagic events (1 on high DSTAT arm, 2 control)

Phase 3 ITT population shows durability of CR/CRi

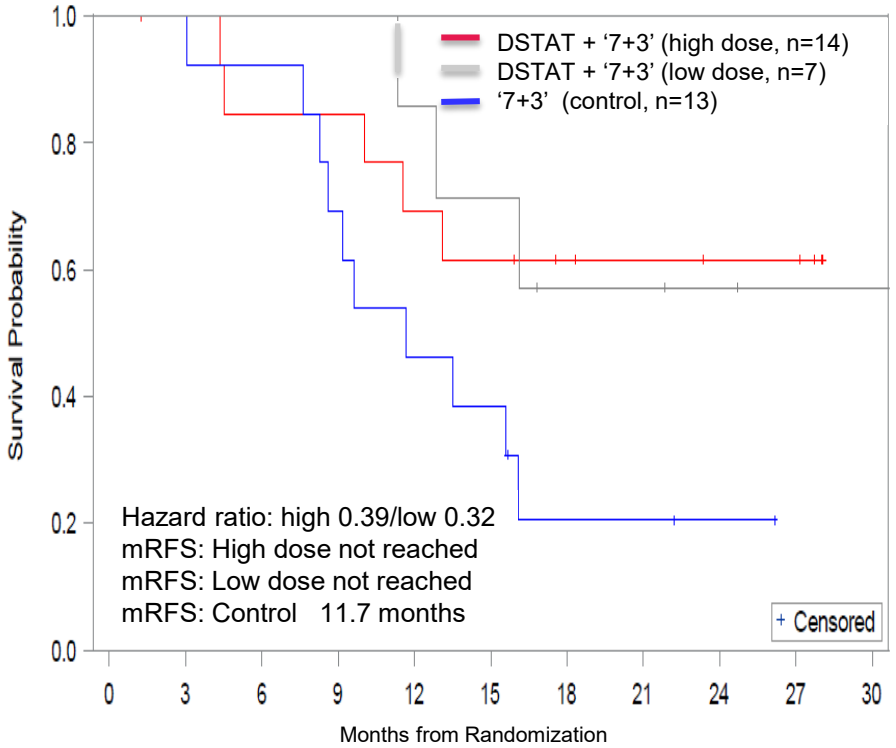
Clinically relevant separation in RFS/OS curves

Response Summary

	% CR/Cri[1,2]
High Dose Arm	70% (14/20)
Low Dose Arm	39% (7/18)
Control Arm	68% (13/19)

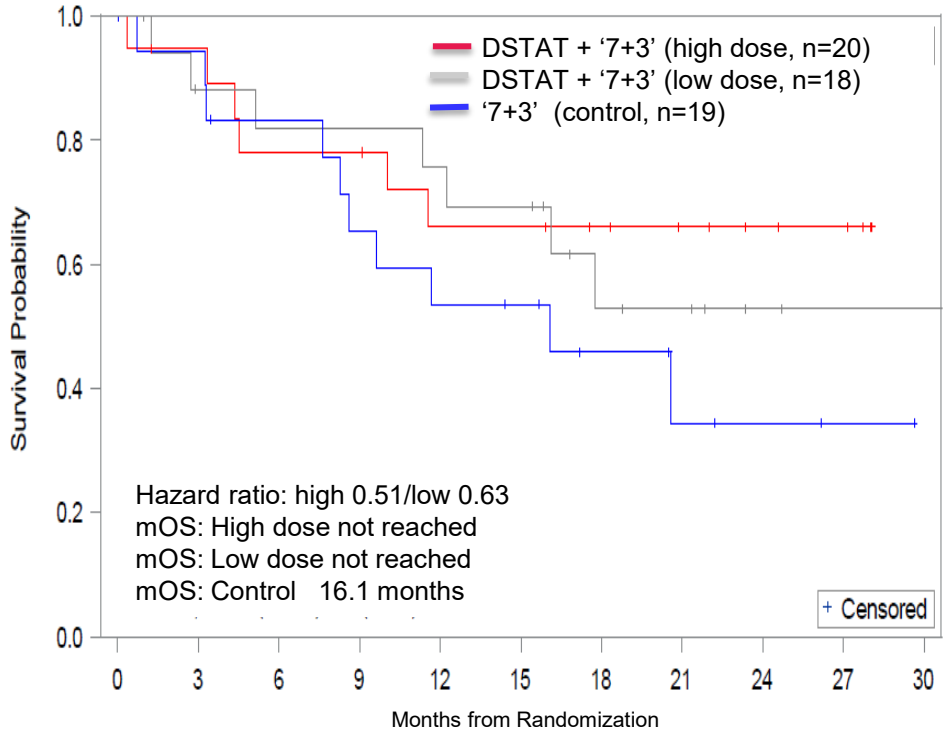
(Historical Control ~50%)

Relapse-Free Survival (RFS)[3]



DSTAT High	14	13	11	11	9	8	6	5	4	4	0
DSTAT Low	7	7	7	7	6	5	3	3	2	1	1
Control	13	13	12	9	6	5	2	2	1	0	

Overall Survival (OS)



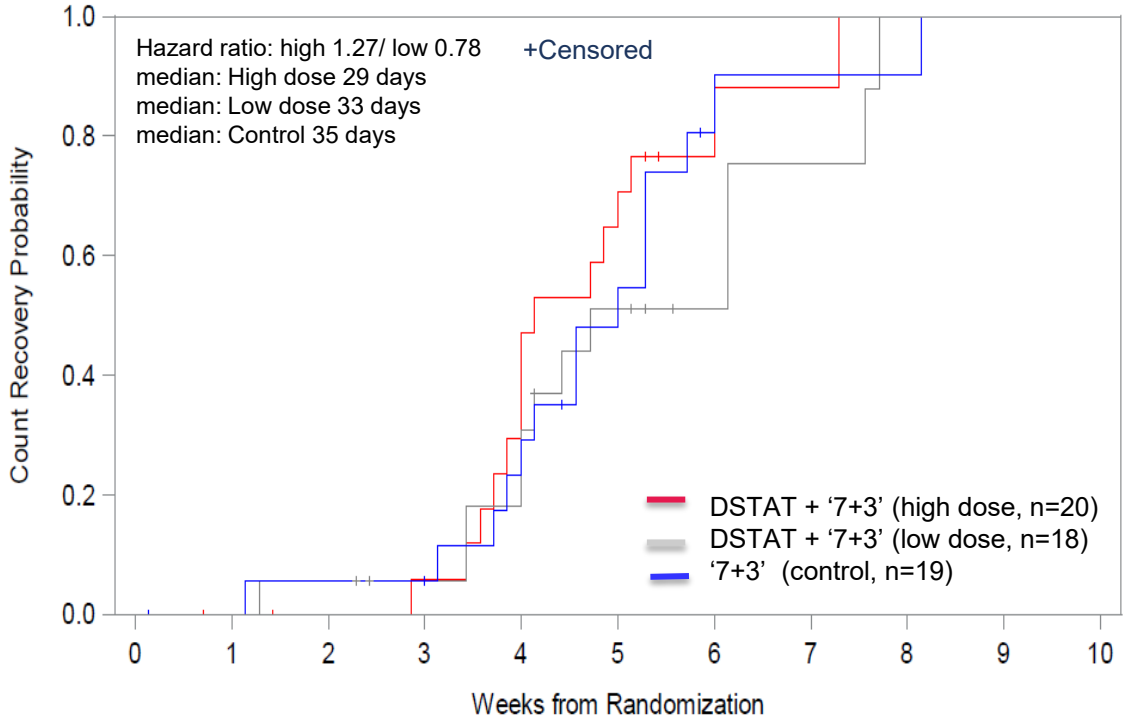
DSTAT High	20	17	14	14	11	11	9	7	5	4	0
DSTAT Low	18	14	13	13	12	11	6	5	2	1	1
Control	19	17	14	11	9	8	5	3	2	1	0

1. Complete Response (CR) or Complete Response without complete hematologic recovery (CRi)
2. Confirmed with post day 14 (D14) bone marrow (BM) biopsy and less than 5% blasts. If no post D14 was performed, the D14 BM biopsy was used to determine response
3. Relapse-Free Survival (RFS) is survival without relapse following induction success (CR/CRi)

DSTAT may not delay hematologic recovery, may accelerate

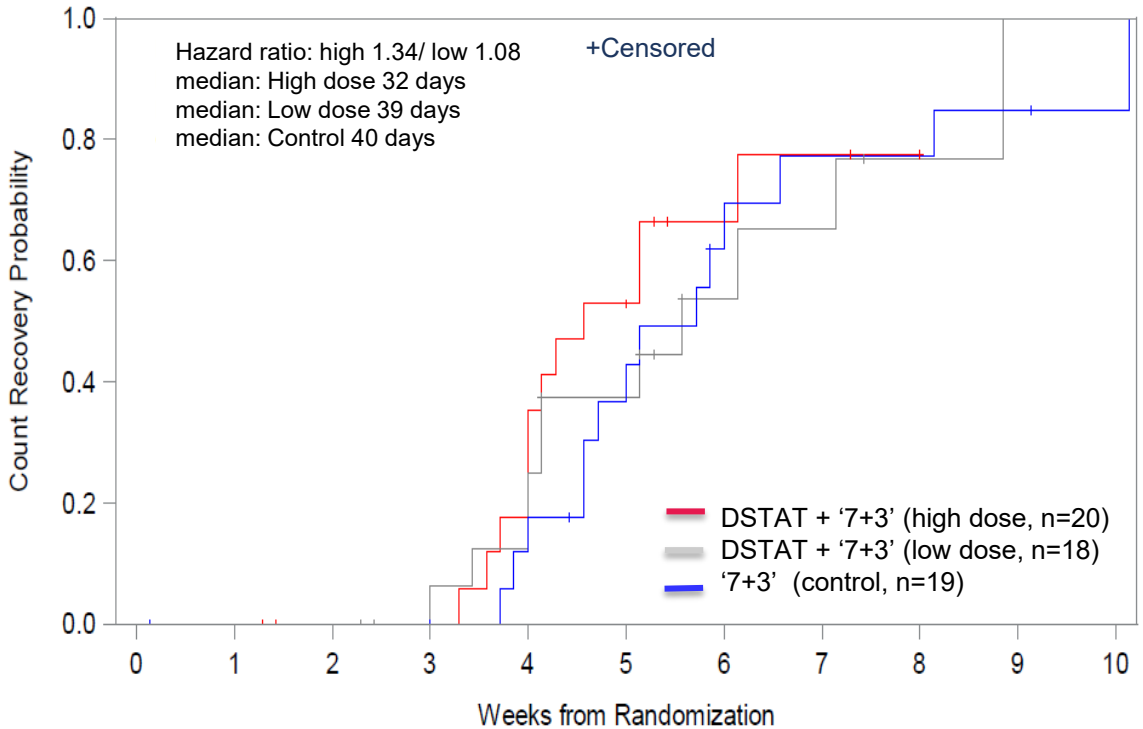
Median days to neutrophil and platelet recovery reduced by 17% and 20%, respectively on high dose

Likely Ph 3 ITT
Neutrophil recovery > 500 cells/uL



DSTAT High	20	18	17	16	12	6	2	1	0	
DSTAT Low	18	18	17	15	13	7	4	2	0	
Control	19	18	17	17	13	8	2	1	1	0

Likely Ph 3 ITT
Platelet recovery > 100,000 cells/uL



DSTAT High	20	19	17	17	14	8	3	2	1	
DSTAT Low	18	18	18	16	14	9	4	3	1	0
Control	19	18	18	18	15	10	5	3	3	2	1

Median Time to Recovery
Kaplan-Meier curves do not include sub therapeutic low dose arm

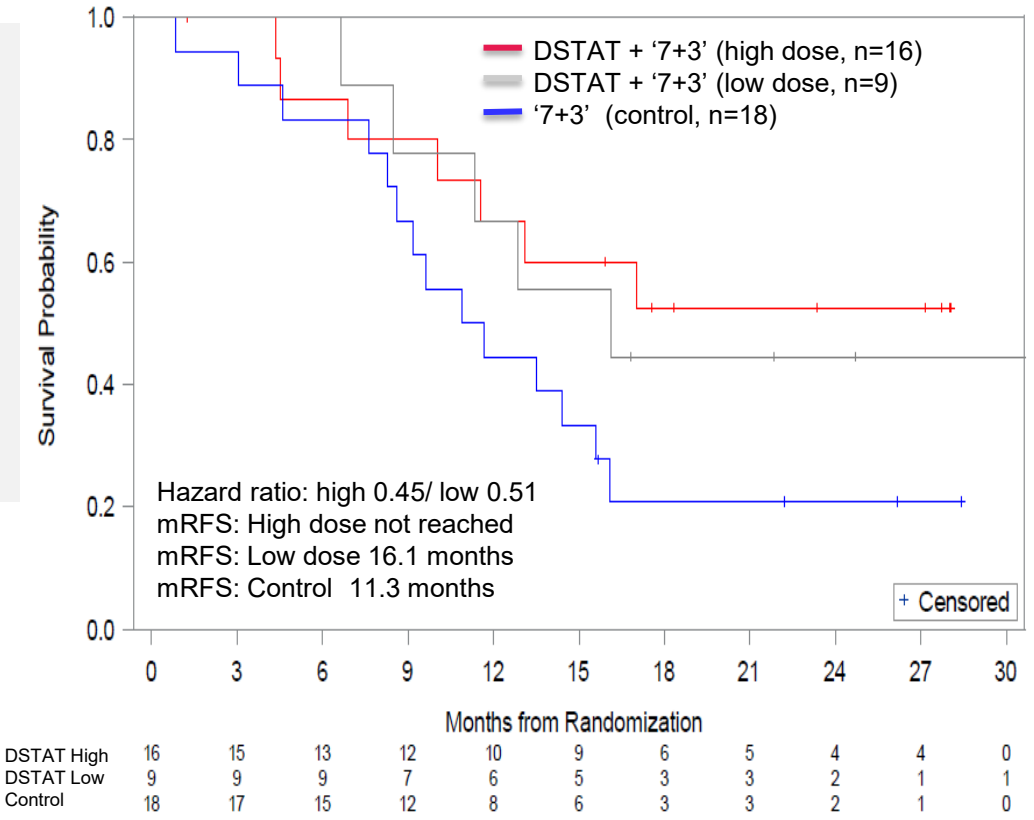
Full ITT population outperforms standard 7+3 chemo

RFS and OS benefit in full ITT Ph 2 population

Response Summary

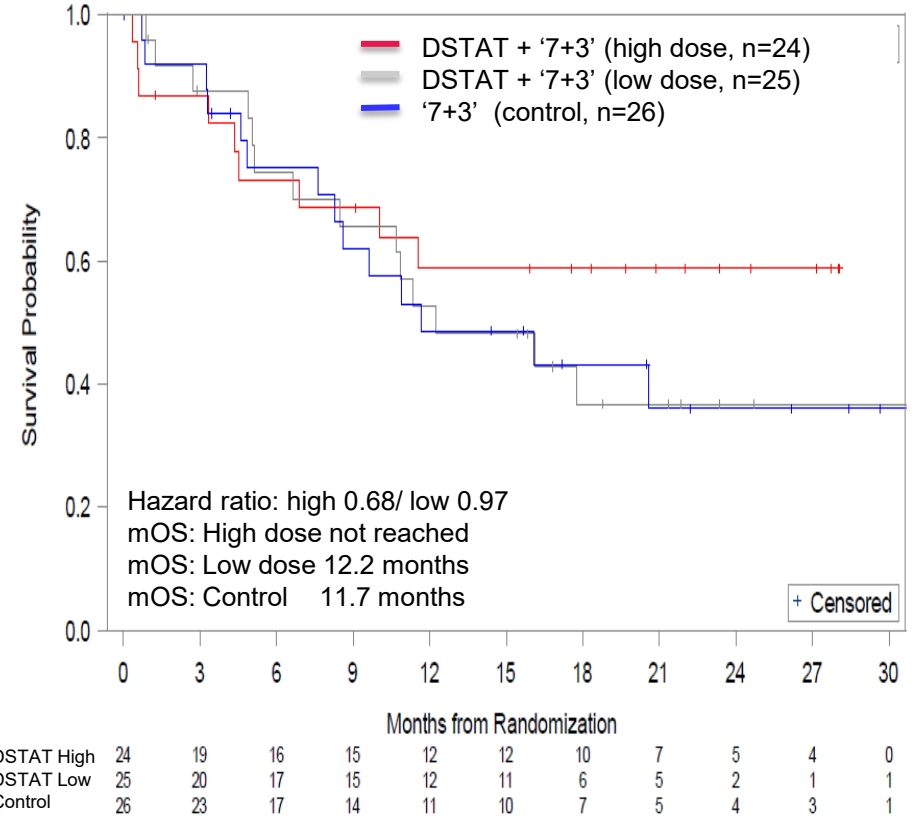
	% CR/CRi[1,2]
High Dose Arm	67% (16/24)
Low Dose Arm	36% (9/25)
Control Arm	69% (18/26)
(Historical Control ~50%)	

Relapse Free Survival[3]



DSTAT High	16	15	13	12	10	9	6	5	4	4	0
DSTAT Low	9	9	9	7	6	5	3	3	2	1	1
Control	18	17	15	12	8	6	3	3	2	1	0

Overall Survival



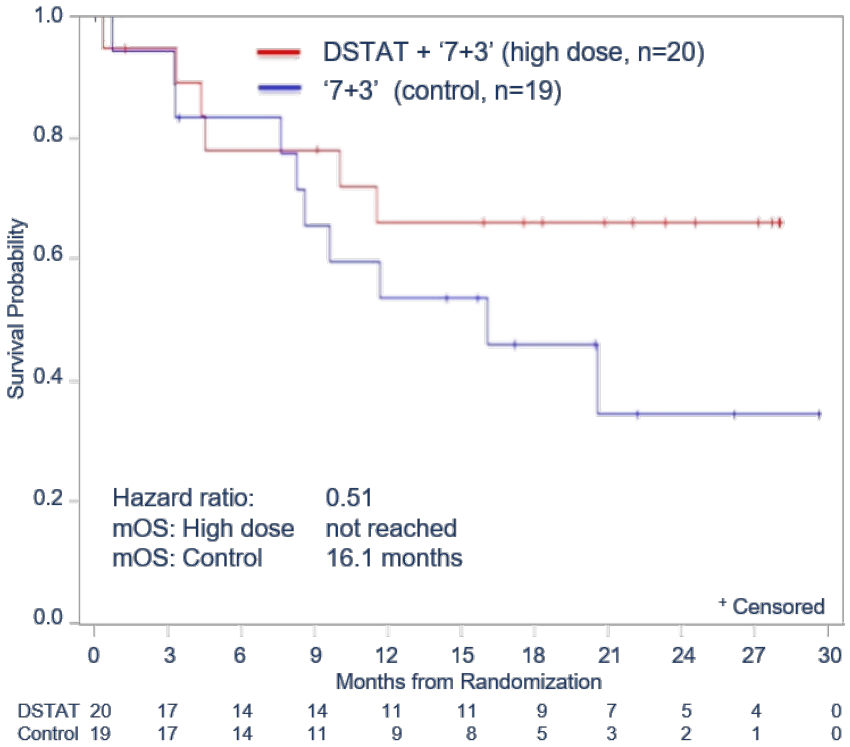
DSTAT High	24	19	16	15	12	12	10	7	5	4	0
DSTAT Low	25	20	17	15	12	11	6	5	2	1	1
Control	26	23	17	14	11	10	7	5	4	3	1

1. Complete Response (CR) or Complete Response without complete hematologic recovery (CRi)
2. Confirmed with post day 14 (D14) bone marrow (BM) biopsy and less than 5% blasts. If no post D14 was performed, the D14 BM biopsy was used to determine response.
3. Relapse-Free Survival (RFS) is survival without relapse following induction success (CR/CRi)

Currently Enrolling DASH AML Ph 3 trial design

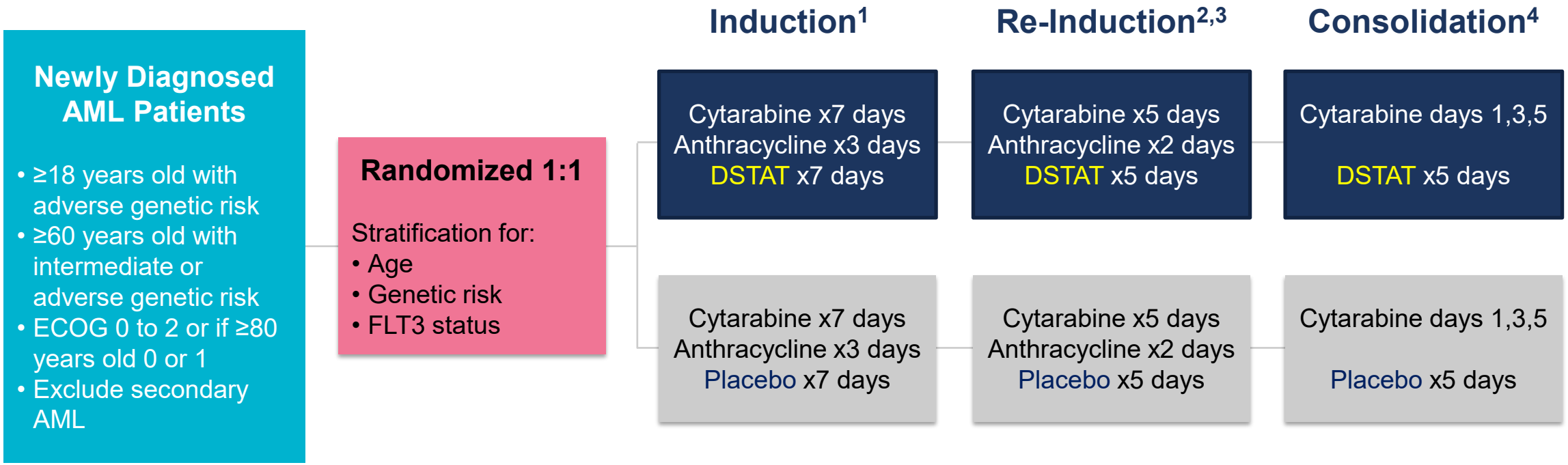
- 570 newly diagnosed adults with AML, fit for intensive chemotherapy
- Double-blind, placebo-controlled, randomized 1:1
  - DSTAT plus standard induction/consolidation chemotherapy (“7+3”)
  - Placebo plus standard induction/consolidation chemotherapy (“7+3”)
- FLT-3 positive subjects able to receive midostaurin
- Primary endpoints: overall survival and event free survival
- Secondary endpoints:
  - Minimal Residual Disease (MRD), Time to hematologic recovery, Response (CR, CR+CRi) and EFS with composite CR (CR+CRi)
- Early efficacy analysis: 80 evaluable patients
  - CR and MRD evaluated
  - Recent publications support predictive power MRD for OS, DFS
  - Data unblinded and published unless extraordinary benefit observed

Phase 2 Overall Survival of Target Ph 3 ITT Population



Two-sided test

DASH Phase 3 treatment plan



1. Cytarabine and DSTAT are given as continuous IV infusions
2. Patients age 18-59 receive cytarabine x7 days, anthracycline x3 days and DSTAT or Placebo for 7 days
3. Patients may proceed to HCT instead of consolidation chemotherapy
4. Re-induction if day 14 bone marrow shows persistent disease (≥5% blasts)

Early assessment to confirm mechanism

- Propose early assessment cohort of n=80 evaluable[1] patients for MRD status[2]
- MRD and CR are early indicators of potential OS and EFS advantage
- Patients continue to enroll during assessment
- Most likely unblind to assess and report data[3]
- Key benefits:
  - Confirmation of mechanism driving Phase 2 durable responses and OS
  - Prudent investment trigger
  - Ongoing reporting of cohort as data matures (including EFS and OS)
- IDMC discretion to maintain blinding if advantage is exceptional
  - Example: both CR and MRD advantage >20pp
- Allows for limited investment prior to proof of MRD advantage

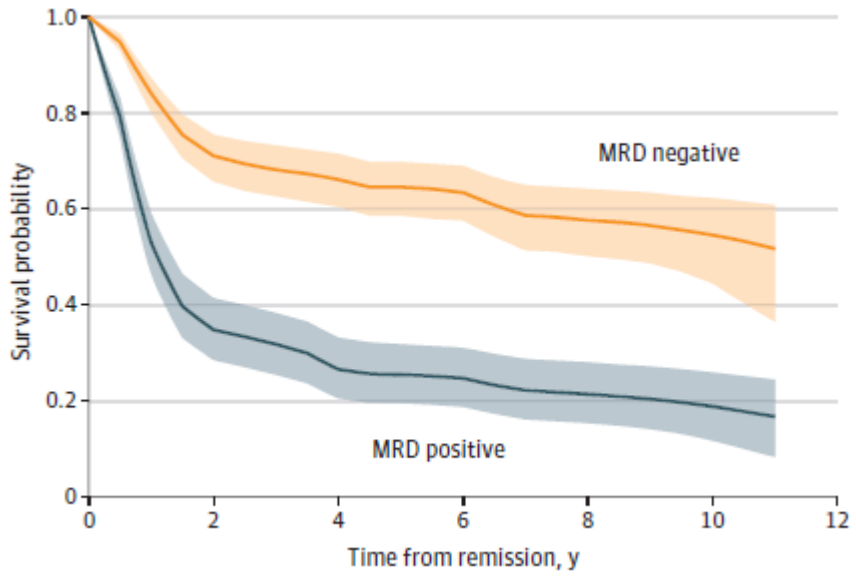
1. Evaluable patients include those who have valid MRD results following induction or re-induction, discontinue due to AE or die during induction or re-induction
2. Following induction or re-induction if applied
3. Data from early assessment would be excluded from final analysis if unblinded

MRD negativity is associated with superior DFS and OS

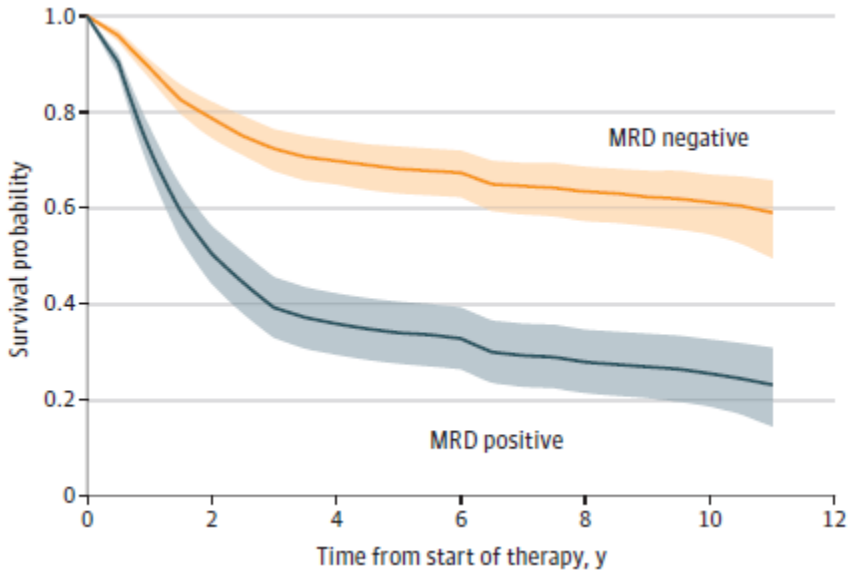
80 Patient Assessment likely strong predictor of success

- Meta-analysis of 81 studies (>11,000 patients) links MRD negativity with superior OS and disease-free survival (DFS)
- Results independent of age, subtype, time of assessment or detection method
- Average HR for achieving MRD activity was 0.37 for DFS and 0.36 for OS

Disease-free Survival



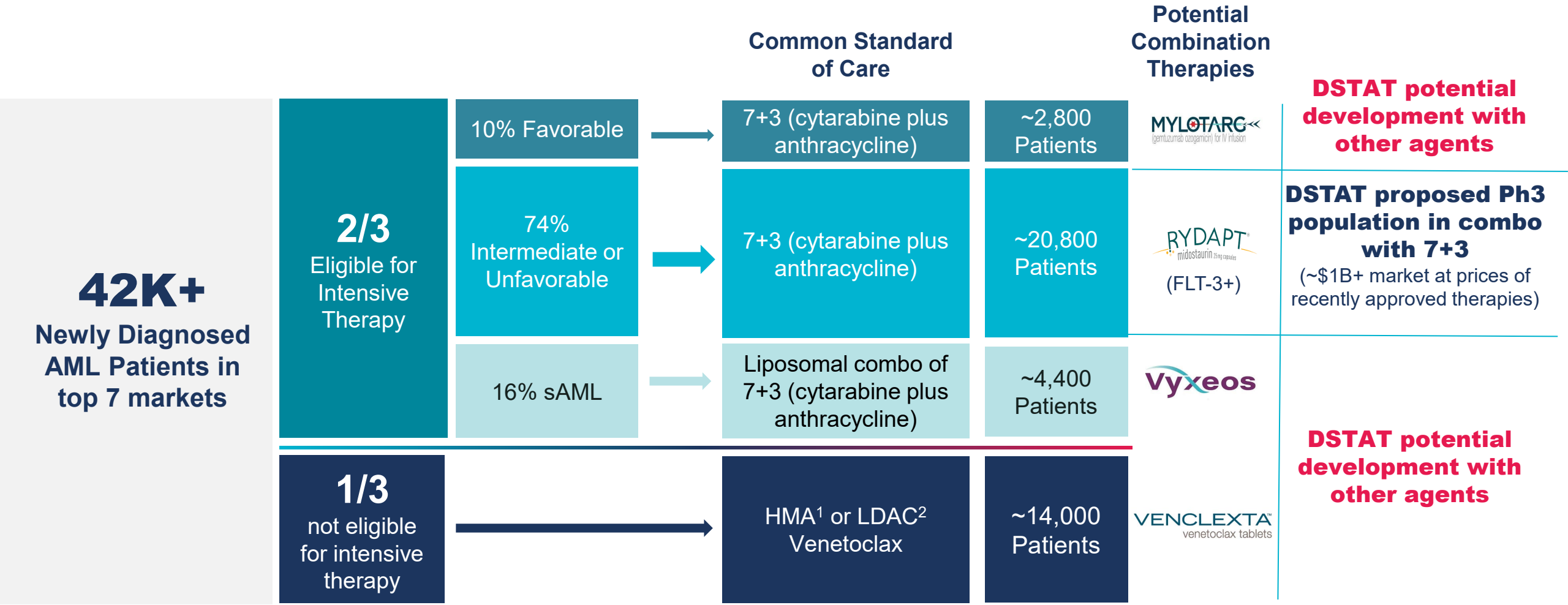
Overall Survival



Short, et al. JAMA Oncology, October 8,2020

Significant commercial opportunity and potential to expand

Phase 3 design may position DSTAT as standard of care for up to ~20,800 patients



1. Hypomethylating agents
2. Low dose cytarabine

Corporate Update

CHIMERIX

Financial summary

Dollars (millions)	June YTD 2021
R&D	$ 25.7
G&A	8.5
Acquired in process R&D	82.9
Total operating expenses	117.1
Net income(loss)	(115.2)
Ending Cash balance	$ 139.6
Shares outstanding	86.2

- Several levers available for additional capital:
  - Expected significant non-dilutive proceeds from potential TEMBEXA® stockpiling in 2021
  - Global rights to most programs
  - Several 2021 catalysts provides additional optionality

Major, near-term paths to value

- TEMBEXA® approved for the treatment of smallpox June 4, 2021
  - Satisfies mandate for 2nd countermeasure for strategic national stockpile
  - Potential $80-$100m annual cash flow next 5-12 years

- Synergistic acquisition of precision oncology platform
  - Efficacy analysis by blinded independent central review of ONC201 data in 2021 (recurrent H3 K27M mutant glioma)
  - Opportunities for new indications and pipeline expansion with the imipridone program

- DSTAT development in front-line AML
  - Phase 3 DASH-AML, enrolling with an early assessment on the first 80 evaluable patients for MRD status

Execution focused on multiple catalysts in 2021

TEMBEXA®

- ✓ FDA approved TEMBEXA® June 2021
- Potential for $100m BARDA procurement of TEMBEXA® into the strategic national stockpile
- Potential for procurement of international government sales of TEMBEXA®

ONC201
ONC206
ONC212

- Efficacy analysis by BICR of ONC201 registration cohort
- ONC201 pre-NDA meeting preparations
- Continued enrollment of ONC206 dose escalation studies
- IND preparations for ONC212

DSTAT

AML:
✓ Initiated Ph3 study, DASH AML

Chimerix Corporate Presentation

CHIMERIX